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The Retail Sector in the Nordic Countries

A Comparative Analysis¹

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Ágrip

Tilgangur þessarar greinar er að lýsa skipulagi smásöluverslunar á Norðurlöndum. Það er greint frá mikilvægustu hagrænum þáttum þessara landa, stöðu smásölu á vinnumarkaði og hlutdeild hennar til landsframleiðslu. Neyslu neytenda á Norðurlöndum er lýst og er hún að hluta til mjög mismunandi. Vöxtur smásöluverslunar hefur einnig verið ólíkur síðustu ár. Smásöluverslun er mikilvægur þáttur í hagkerfi þessara landa og stór fjölþjóðleg fyrirtæki ráða yfir mjög stórum hluta af smásöluversluninni. Rætt er um markaðssamþjöppun í smásöluverslun í einstökum löndum og eru Herfindahl-Herschman-stuðull og samþjöppunarstuðull notaðir til að lýsa markaðssamþjöppun. Eitt einkenni smásöluverslunar á Norðurlöndum er að markaðssamþjöppun er tiltölulega mikil í samanburði við önnur lönd. Auk þess er rætt um mikilvægi flutningafræðilegs kostnaðar eða kostnaðar vörustjórnunar fyrir samkeppnishæfi fyrirtækja. Flutningafræðilegur kostnaður, sem skiptist í stjórnunarkostnað, birgðakostnað og flutningskostnað, er lýst í greininni fyrir Norðurlönd og önnur lönd Evrópu. Dreifing íbúa og samþjöppun í þéttbýli er mjög mismunandi á Norðurlöndum og rætt er um áhrif á smásöluverslun miðað við þann fjölda íbúa sem býr á höfuðborgarsvæði einstakra landa og er sú staða borin saman við önnur lönd.

Lykilord: Smásala, Norðurlönd, markaðssamþjöppun, Herfindahl-Herschman stuðullinn, flutningafræðilegur kostnaður

Abstract

The purpose of the paper is to describe the structure of the retail sector in the five Nordic countries (Denmark, Finland, Iceland, Norway and Sweden). The most important economic factors within these countries are discussed, the position of the retail sector in the labour market is described, and we show the contribution of the trade sector to Gross Domestic Product. The consumer patterns of these five countries are to some extent quite different. The growth of the retail sector has varied in the five

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countries over recent years. The retail trade is an important economic factor in the five countries and large international enterprises control a very large share of many of the sub-sectors of the retail trade. We discuss the intensiveness of the market concentration in the retail sector in individual countries using the Herfindahl-Herschman Index and the Concentration Ratio to demonstrate market concentration. One characteristic of the retail trade in the Nordic countries is that the level of concentration is relatively high as compared with other countries. Furthermore, we discuss the impact of logistics costs on the competitive advantages of enterprises. Logistics costs, which are divided into management costs, inventory costs and transportation costs, are analysed for the Nordic countries and other countries of Europe. The population distribution and urban density are also very different within the Nordic countries. We discuss the impact on retail trade resulting from the proportion of the total population living in the capital area and compare this situation with the situation in other countries in the world.

Keywords: Retail, Nordic countries, market concentration, Herfindahl-Herschman Index, logistics costs

Introduction

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 Statistical Yearbook, 2006).

Table 1: Key figures of the Nordic region in an international context²

| | Nordic countries | Euro-12 | USA | Japan |
|--------------------------------------------------------------------------|------------------|------------|---------------|------------|
| Inhabitants per sq km | 16 | 121 | 32 | 350 |
| Population aged 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 % of GDP | 48 | 41 | 25 | 25 |
| Unemployment rate, % | 6.6 | 8.6 | 5.1 | 4.4 |
| Average hours worked per week | 35–38 | 32–40 | 41 | 47 |

There are approximately 25 million people living in the Nordic countries, 300 million in the United States and in the Euro-12 and 130 million in Japan. The inhabitants per sq km are quite different between the countries, as shown in Table 1, from 16 in the Nordic region to 350 in Japan. The consumption of energy is by far the highest in the USA and so is the emission of greenhouse gases. These countries all have on average a high living standard; the USA having the highest. There are big differences regarding the general government debt, 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 far higher in the Nordic region. The unemployment is highest in the Euro-12, much more than in the other countries. The Japanese people work for longer hours than those in the other countries.

² 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, Netherlands, Portugal and Spain.

The five Nordic countries, Denmark, Finland, Iceland, Norway and Sweden, are among the wealthiest countries in the world despite their relatively small populations. Table 2 shows some information on the countries (Nordic Statistical Yearbook, 2006; OECD in Figures, 2006) which is of particular relevance for the retail sector.

Table 2: Some fundamental information about the Nordic countries

| | Denmark | Finland | Iceland | Norway | Sweden |
|----------------------------------------------------------|--------------|----------|------------|-----------------|------------|
| Population, 1 Jan. 2006 in millions | 5.4 | 5.3 | 0.3 | 4.6 | 9.0 |
| GDP per capita in PPP 2005 in 1.000 US\$ (world ranking) | 34.4(7) | 31.4(15) | 35.8(6) | 43.2 (2) | 32.7 (12) |
| Population per sq km | 126.7 | 17.2 | 3.3 | 15.0 | 22.00 |
| Inhabitants in capital area | 34% | 19% | 63% | 22% | 21% |

Table 2 shows that the population sizes vary somewhat, although three of the countries (Denmark, Finland and Norway) have similar populations of approximately 5 million. Sweden has almost double that number, at 9 million, while Iceland has only 300,000 inhabitants.

The Gross Domestic Product (GDP) per capita in Purchasing Power Parities (PPP) for 2004 ranged from USD 30,400 to USD 38,700, 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 sq km, 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 to 22 inhabitants per sq km. Iceland has only 3.3 inhabitants per sq km, while the corresponding density for Denmark is 127 inhabitants per sq km. The proportion of residents 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. Finland and Norway thus show a similar structure in this respect, while the other countries are somewhat different.

Shopping habits vary greatly between regions in Europe. Thus, there are fewer but larger shops per inhabitant in Northern Europe than in Southern Europe. The largest retail enterprises in Northern Europe have a larger market share in Northern Europe than in Southern Europe, and the own-brand market share is also larger (Flavián, Haberberg & Polo, 2002).

Retailing has in recent years and decades been characterised primarily by global retailing, where large retail chains are operating in more and more countries. Of the largest enterprises in this 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 & Rökman, 2004). The same applies of course for Iceland. In many countries the retail companies are among their biggest enterprises.

The retailers have often huge buyer power by facing many competitive sellers representing the situation of monopsony (Clarke, Davies, Dobson & Waterson, 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 Statistical Yearbook, 2006; Ágúst Einarsson, 2005).

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% |

The annual population changes in 1850 to 2006, over 150 years, reveal a similar trend for four countries (Denmark, Finland, Iceland and Norway), i.e. from 0.8% to 1.0%, but in Sweden the yearly change over the past 156 years was 0.6%. A different picture emerges when the last 15 years are examined, from 1990 to 2006, when the yearly increase in Denmark, Finland and Norway was 0.3%, as compared to 0.6% in Norway and 0.9% for 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, but the section of the population which is most active in retail shopping, i.e. people in the age bracket of 15 to 64 years, is virtually identical in the five countries. A very similar proportion of the workforce is employed in the trade sector, i.e. about 15-18% of the total in all five countries. The contribution of the trade sector to gross value added is highest in Sweden and lowest in Finland.

Prices in the food market in the Nordic countries are higher than in the other countries of Europe. This is explained partly by different Value Added Tax (VAT) policies and the extremely inefficient agricultural sectors in Norway and Iceland. Table 4 shows the Gross Domestic Product (GDP) per capita in 2005 in PPP where the index is 100 for EU-15³ in the second column. The price level is in the third column (overall) and in the fourth column (food only) (Nordic Statistical Yearbook, 2006).

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 |
| Netherlands | 114 | 102 | 96 |
| United Kingdom | 106 | 104 | 99 |
| Poland | 46 | 46 | 51 |
| Euro-12 | 98 | | |
| United States | 138 | | |
| Japan | 100 | | |

3 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, Netherlands, Portugal, Spain, Sweden and United Kingdom.

We see clearly in Table 4 the difference between Poland and the other countries. The price level is quite different between these countries. In Iceland and Norway the food prices are over 40% higher on the average than in the European Union (EU-15). The price level in Finland and Sweden is similar to that in other countries in Western Europe. The structure of the retail trade in the Nordic countries varies (Næss, 2003). In all the five Nordic countries large companies control the retail trade and these large companies regard the entire world as their home market.

Consumption and retail growth

Table 5 shows 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 Statistical Yearbook, 2006).

Table 5: Consumption in the Nordic countries per capita 2005

| | Denmark | Finland | Iceland | Norway | Sweden |
|------------------------------------------|-------------|------------|-------------|--------|--------|
| Sales of alcohol, litres per capita 2004 | 11.0 | 9.9 | 6.7 | 6.2 | 6.5 |
| Milk, litres 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 |

Table 5 shows that the consumption of alcohol is greatest in Denmark, and that Finland has the highest consumption of milk. Icelandic consumption of beef and veal is low in comparison with all of the other Nordic countries, but its consumption of lamb is 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 co-operative ownership, which commands 38% of the market for convenience goods (Juhl, Kristensen & Østergaard, 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 & Poch, 1994). For the food manufacturers the bargaining power of food retailers and the threat from substitute products, e.g. retailers' own labels, are among the most competitive forces. The five forces model of Porter and Porter's diamond model can successfully be used in this context to analyse the increasingly large food retail companies (Wrigley & Lowe, 2002; Pitts & Lagnevik, 1998).

The retail sector has grown significantly in Iceland in comparison with other sectors, with retail growing by approximately 70% from 1990 to 2002, at the same time that the increase has been about 40–45% in Denmark and Sweden and 30% in Finland, but only 20% in Norway (Nordic Statistical Yearbook, 2006). The reasons for increased retailing vary, and consumer attitudes are measured differently in many studies. Thus, various 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 fund are most important (Geuens, Brengman & S'Jegers, 2003).

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 expenditures, alcoholic beverages and tobacco account for 4–6%, and clothing and footwear account for 5–6%. Table 6 shows the consumer price index for 2005 (Index 1995 = 100) for important items of consumption (Nordic Statistical Yearbook, 2006; Ágúst Einarsson, 2005).

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 |

As we see in Table 6 the consumer price index differs to quite a large extent between the countries. It is highest in Iceland. Alcoholic beverages are most expensive by far in Iceland and Norway. Clothing and footwear are most inexpensive in Norway. The consumer price index for furnishing, transport, communications and restaurants is similar in the five countries but it depends of course very much on the exchange rate in the 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 m², but the new hypermarkets frequently cover 3500–4000 m² of floor space and such shops have achieved a significant market share in many parts of the world (Geunes et al., 2002). Shops show great variety in the Nordic countries. Table 7 shows the distribution of turnover by shop size in 2004 (*Nordic Grocery Insight, 2005; Nordic Food Markets, 2005*).

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

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

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 2%. Hypermarkets are also rare in Norway, where medium-sized shops (400–999 sq m) account for the largest proportion of sales. Over the last decade, sales in hypermarkets have grown significantly in Finland and Sweden (*Nordic Grocery Insight, 2005*), while sales in the smallest category (<100 sq. m) have fallen by a great margin in all countries.

The differences in the shopping preferences of the retail consumers are large enough to result in

considerable contrasts in the patterns of retailing in Europe (Howe, 2003). Table 8 shows the growth in retail shopping in the Nordic countries from 1998 to 2004, where the index for 1998 is 100 (Nordic Grocery Insight, 2005; Nordic Food Markets, 2005).

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 |

The growth has been greatest in Iceland over this six-year period, at 37.6%, followed by Sweden, 33%, Finland, 25.9%, Norway, 25.6%, and finally Denmark, 19.2%. Table 9 shows the annual growth in the individual sections of the retail sector in the six years from 1998 to 2004 (Nordic Grocery Insight, 2005; Nordic Food Markets, 2005).

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

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

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

In all Nordic countries the public authorities, especially the local authorities, place more emphasis than before on the retail sector, e.g. in urban planning, locations of big shops, environmental issues and transport (Planlægning for detailhandel i Norden, 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 Statistical Yearbook, 2006; Ágúst Einarsson, 2005).

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% |

It might come as a surprise that, according to Table 10, there has not been very much change over these 15 years and the percentage of imports from other Nordic countries is similar for all five countries.

There are three key trends in retailing globally. The first one is that health is much more of a concern than before, resulting, for instance, in increased sale 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 (What's hot around the globe, 2004). Private Label has a market share of 17% globally and is growing (The Power of Private Label 2005, 2005).

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 of the largest retail chains (Nordic Grocery Insight, 2005; Staðan á matvörumarkaði – könnun norrænna samkeppnisefirlita, 2005).

Table 11: Market concentration in % in retail in the Nordic countries

| | 1st | 2nd | 3th | 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 | | |

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

$$HHI = \sum_{i=1}^I s_i^2 \quad (1)$$

In formula (1), s_i represents the market share of company i 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 10,000.⁴

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.

4 If 5 companies divide the market among themselves so that 2 companies have a market share of 25% each, 2 companies have a market share of 20% and one has a market share of 10% then $HHI = 2.150 = (25^2+25^2+20^2+20^2+10^2)$.

Table 12: Herfindahl-Herschman 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% |

In Denmark and Sweden, only three chains command 91% of the grocery market. It should also be borne in mind that in some cases there are ownership links between the chains, so that the concentration is in fact higher.⁵ 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, while in South Korea and Japan the biggest retailers account for only 12% of total sales (The Power of Private Label 2005, 2005).

The US regulatory authorities, like other competition authorities, use HHI in their assessment of mergers (Reynold and Cuthbertson, 2004). In the United States, a 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. The grocery market in the Nordic countries is extremely concentrated in comparison with other countries. As shown in Table 12, the concentration is up to 3100 in the Nordic countries, while other countries show a much lower figure, e.g. about 1600 in France and Germany, about 1800 in the United Kingdom, and as low as 300–500 in Spain (Reynold & Cuthbertson, 2004; Nordic Food Markets, 2005).

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 Food Markets, 2005).

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 |
| Sum | 420 | 669 | 390 | 290 | 508 | 713 |
| Index, France = 100 | 59 | 94 | 55 | 41 | 71 | 100 |

Table 13 shows that France has a significantly broader selection in supply of food than the Nordic countries. 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 of food products 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 significant factor.

5 The biggest Icelandic retail group, Hagar (Baugur), has, for instance, bought the big department stores Magasin du Nord and Illum in downtown Copenhagen.

Logistics cost 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 turnover in some European studies (Ágúst Einarsson, 2005).

Table 14: Logistics costs in some studies in Europe

| Research, Year and Country | Management costs | Inventory costs | Transportation costs | Total costs as % 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% |

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 the four years from 1997 to 2001. 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 represented 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 in 11 years. The ELA surveys extended to the 2000 members of the ELA and about 200 companies responded to the last survey (Ágúst 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. The two countries have 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 populations residing in the capital area are significant factors for the retail sector, and in fact for other social aspects of the countries in question.

Figure 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 with over 100,000 inhabitants, is 6.5 billion (*World Capitals, 2007; Area and Population of Countries, 2007*).

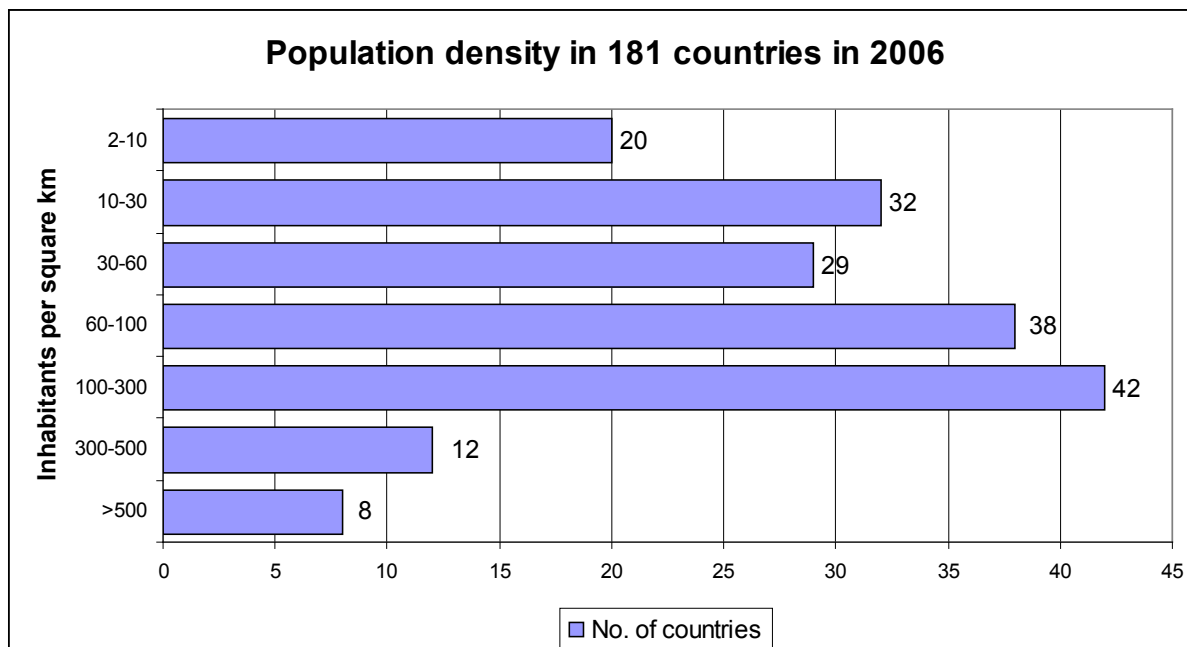


Figure 1: Population density in 181 countries in 2006

The most densely populated country in the world is Singapore, followed by Malta, Maldives, Bahrain, Bangladesh, Barbados, Taiwan and Mauritius. The ten 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 to 300 inhabitants per sq km and Finland, Norway and Sweden are in the category 10 to 30 inhabitants per sq km. Iceland is in the category of 1–10 inhabitants per sq km.

Looking at urbanisation in capitals around the world, Figure 2 shows what proportion of the populations of 181 countries lived in the capital area of their respective countries in 2006 (*World Capitals, 2007; Area and Population of Countries, 2007*).

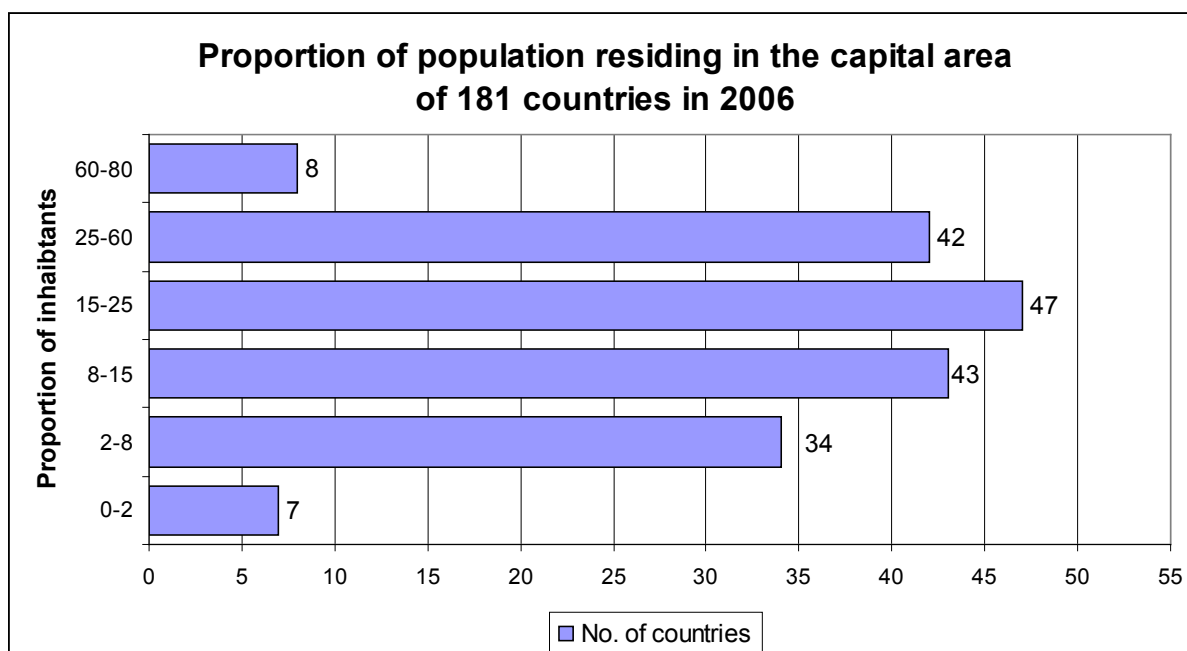


Figure 2: Proportion of populations residing in the capital area of 181 countries in 2006

The ten countries where most of the population lives in the capital area are Djiboute, Singapore, Bahrain, Bahamas, Western Sahara, Kuwait, Qatar, Iceland and Uruguay. 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.

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