Large? Clothing sizes and size labeling

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Preface

This report examines the relationship between the clothing sizes and the size labeling given in the garments, and how the consumers experience it. The research is based on three different sources: a consumer survey, clothing size measurements in shops and in-depth interviews. The data is collected from three Nordic Countries; Finland, Norway, and Sweden.

The size measurement results and the survey answers indicate that sizing systems are confusing and full of disparities. The European committee for standardization is developing a common European size code for garments, but they have experienced problems in reaching a system that indicates the sizes accurately, but still does not get too long and complicated for the consumers to understand or for the manufactures to use. One of the intentions of this project is to contribute with new information to the on-going standardization work.

A common and well-functioning size labeling system would be an advantage to many consumers, in particular to groups who find the size labeling insufficient, and for the consumers that are not able to try on clothes in the stores themselves. We also hope that a better understanding of the relationship between bodies, clothes and size labeling will be useful in future discussions, due to the growing focus on body and dieting, as well as the increased weight of the population. And finally, a diminishing number of mistake purchases will be beneficial for the environment as it decreases the disposal of textiles.

The project is funded by the Nordic Council of Ministers and National Institute for Consumer Research in Norway (SIFO). The project has been directed by SIFO and the report is written by three of SIFO’s researchers. Ingun Grimstad Klepp (Ph.D. ethnology) has been project leader, Kirsi Laitala (Master, textile engineering) has had responsibility of carrying out the project, performing the clothing size measurements and developing the web questionnaire, and Benedicte Hauge (Master, sociology) has assisted in analyses and writing the report. Special thanks to Hanne Hole and Ane Christine Engh for assistance.

The reference group consisted of two other consumer research institutions; Center for Consumer Science in the University of Gothenburg (CFK) in Sweden, represented by Viveka Berggren Torell (Ph.D. ethnology), and National Consumer Research Centre (NCRC) in Finland, represented by Kristiina Aalto (Lic.Sc. economy). They have contributed in carrying out the web-survey in their respective countries, translating the summaries, and by giving comments throughout the project.
Summary

Are sizes different between clothes that are labeled with the same size code? Or are there differences in size labeling between clothes that are actually of identical size? Or could these just be myths? This report investigates the relationship between size labeling and clothing sizes with three different research methods. The first method is clothing size measurements in stores in Norway, Sweden and Finland, which contribute with information about the relationship between size codes and clothing measures. The second method is a consumer survey, which gives information about the relation between clothes, body and labeling, as the consumers see it. As a third method, qualitative interviews were conducted in order to get more in-depth data than what the web survey could give.

The report firstly discusses the clothing size measurement method and the measurement results. The measurements reveal that differences within clothing sizes are immense. A pair of trousers labeled L could be smaller than another labeled S. The size variations between garments labeled with same size are more wide-ranging for women’s clothing than for men’s. The biggest variations could be found in women’s trousers in size large. The results indicate that it is necessary to try on trousers before buying them; not only to see if the model fits, but also to check the size.

No unambiguous systematic variations between sizes and size labeling were found, neither between brand origin, production country, nor between the three participating Nordic countries. Trousers in stores aimed at young females were slightly smaller than trousers in stores aimed at adult women, but this difference was small in comparison to the total variation within sizes. We did not see any systematic variations between sizes and size labeling in men’s trousers. Within most stores variation was found between the measured trousers that should have been of the same size, and therefore it is not easy to draw conclusions on systematic differences. However, stores which were not a part of a chain and which sell unknown brands in cheap and young style, had on average smaller clothes for women than the average size in chain stores selling known brands.

The work with size measurements in stores gave information about where the different sizes were available. It is more difficult to find big sizes for women and small sizes for men, but the availability of sizes varies between the stores. Women using sizes 44 or bigger often have to go to special stores for big sizes, or separate departments in chain stores. Girls that use over 32” jeans size may have to buy their jeans in men’s department if they wish to buy their trousers in jeans stores aimed at young people.
Secondly, the report discusses the results from the consumer survey and interviews. It takes up shopping habits and style, and focuses on those who cannot find clothes that fit. Females in general have a harder time finding clothes that fit their style, body shape and size. Over 60 percent have to use time to find something that fits or cannot find clothes with their preferred style that are sold in their size. Older women find it more difficult to find clothes that fit their style than young girls. Around half the men in all age categories find it easy to find clothes that suit their style. We see a similar tendency when looking at body mass index (BMI) and age in relation to the experiences people have with finding clothes that fit their style, body shape and size. Increase in BMI makes it more difficult to find clothes that fit both the body and the style that is desired. This finding corresponds with the increased focus on the body in the clothes, rather than the clothes themselves. There are some differences between the three countries. Over 50 percent of the Finnish, over 40 percent of the Norwegian and around 35 percent of the Swedish informants say they have to use time to find something that fits. Generally, people with a BMI below 25 in all three countries find it easy to find clothes that fit their style, but also here the Finns are the least satisfied.

The report also discusses which garments people try on before buying them. We see great disparities, as women try on clothes more often than men, and young men try on clothes more often than the older men. The mail-order habits show a similar tendency as the trying-on habits. More women use mail-order than men. The most common garments they buy are t-shirts, shirts, sweaters, trousers and underwear. The garments that the most men buy are t-shirts, trousers and shirts. Women that use large sizes and men that use small sizes buy more clothes from mail-order or on the internet. This is also the case with those that have more than 4 kilometers to the nearest clothing shop. As a larger part of the women than of the men buy clothes for their children and partner, and other family members, relatives and friends. Nearly two in five men never buy clothes for others.

The next part of the report discusses the consumers’ opinions on size labeling systems and variations within sizes. Based on the survey answers, it is obvious that there are problems connected with the existing sizes and size labeling systems. Over 98% of respondents say that they find variations in clothing labeled with the same size. Less than 1% say that they can always use the same size. Women find more variations in sizes than men do, and normal weight respondents find the least variation in sizes, followed by underweight respondents. The overweight and obese find the most variations. These results correspond well with the findings from the size measurements in stores. The respondents had opinions of systematic variations in size labeling between different types of stores. Generally, we can see that there were much more “clothes smaller than average” answers than the opposite, “clothes larger than average” an-
swers. The majority of respondents think that clothes are smaller than average in stores aimed at young customers and in South-European chains. A majority of respondents think that sizes are closest to average size in large chains, followed by stores for adults and mail-order companies.

Regardless of the fact that almost all of the respondents say that they find variations in clothing sizes, the majority still say that they are satisfied with most of the size labeling systems with the exception of children’s age-based and foreign labeling systems which are found unsatisfactory. However, the respondents are less satisfied with availability of some sizes and the fact that there are variations within sizes. The majority of respondents agree that it would be positive to have a new size labeling system. Men, young people, and the underweight or the normal weight respondents are more satisfied with the existing systems than women over 40 years old or the overweight/obese respondents. There are not very big differences between the respondents from the three Nordic countries. The majority of respondents from all three countries support the idea of having the same labeling systems everywhere. The age group over 60 is the most positive to the proposal. This correlates well with the earlier finding that these consumers are the least satisfied with the existing labeling systems and wish to get more information on the size label. The majority of respondents from all three countries think that the new size proposal seems informative but have some trouble understanding it.

The report concludes by combining and comparing the findings from each section and points out important themes for future studies. Even though the sources which this report is based on are very different, the results concur to a great extent. This reinforces the validity of the findings. Big women report the greatest problems when trying to find clothes that fit, and also have the least trust in size labeling systems. This corresponds well with the results from trouser measurements in stores.

Furthermore, we discuss the consequences that these findings have for the ongoing European standardization work to develop a common size labeling system. The technical and communicational aspects are important, that the system is flexible enough, easy to understand, and employed correctly. Another, often forgotten aspect for developing a better functioning system is that size labeling is not only a rational system for communication, but also connected to feelings and body ideals.

The report concludes by looking back on the myths that exists around clothes and size labeling. We did not find basis for an intentionally and systematically inaccurate labeling, but the results show the myths have not arisen without a reason. Current size labeling systems are not confusing only because so many different systems are used side by side, but also because they are not used correctly.
1. Introduction

The report discusses the relationship between clothes and size labeling, and also how consumers experience this relationship. Clothes were until the development of the ready-to-wear (RTW) industry made to individual dimensions and fit for each individual. Today’s clothing industry is based on a system where clothes are made in RTW sizes that are meant to fit most people. Size labeling is a communication system between manufacturers and consumers. The intention with the system is to make it simpler to find clothes that fit. It presupposes that the manufacturers label the sizes accurately, and that the consumers understand and trust the size labeling, but also that the clothes are fitted to the consumers’ bodies. The size labeling systems can be understood as rational systems, but they still raise emotive issues. The clothes are made and labeled to fit different bodies, but as long as body sizes and figures are two fields strewn with norms this will influence the labeling itself. It is conceivable that the norms are reflected in the way consumers comprehend the size labeling, but also the manufacturers’ choices in connection with which body figures they produce clothes for and how these are labeled. In order to analyze these conditions, three different types of materials were collected: size measurements of trousers in clothing stores, a consumer questionnaire and qualitative interviews. The results from these analyses are presented in this report.

1.1 Background and context

The relationship between clothing and clothing sizes is currently under revision due to bodily changes, technological development that open for new measurement methods\(^1\), and the international clothing industry that requires international, standardized solutions (Ullrich & Bryant 2006, Otieno & Fairhurst 2000, Bougourd et al 2000, Stylios 2005). Currently, the European committee for standardization is developing a common European size code for garments.\(^2\) The working group has experienced problems in reaching a common size code system which indicates clothing sizes accurately, and which still does not get too long and complicated for the consumers to understand or for the fashion manufactures to use. This report brings knowledge to this work through information about

\(^1\) Some stores have started to use body-scan technology in order to make more tailored clothes, but this is still a niche, and not available yet in Nordic countries

\(^2\) European committee for standardization: prEN 13402-4 Size designation of clothes - Part 4: Coding system
today’s systems and consumers’ problems with them. It is also important to bring Nordic perspectives to the committees’ work.

The connection between bodies and clothes is not only a question of technology or practicalities, but also involves deeper individual and social problems (Entwistle 2000, Turner 2004, Nettleton and Watson 1998, Shilling 2004, Fraser and Greco 2005, Howson 2004). Clothing sizes affect the way others comprehend the size of the body (Liu, Fan & Lau 2006). Nordic people have gained weight in later years and are facing increasing rates of overweight and obese people (Folkehelsen 2006). Still, the obesity rates (BMI over 30) are higher in Finland (13%) than in Norway (8%) (OECD Factbook 2005). At the same time, today’s body ideal is characterized by a thin and toned look (Guendouzi 2004). These conditions are likely to have an effect on the clothing habits in the Nordic countries. Earlier studies have called attention to large-sized consumers and their problems with finding fitting clothes (Collins 2004, 2006). We have reason to believe that these problems are different for men and women, as men have gained more weight than women (Meyer & Tverdal 2005). On the other hand, more women than men believe that they are overweight or have a weight problem (Rudd & Lennon 2000). While women’s bodies are the focus of attention in public (De Grazia & Fur-lough 2005), less attention is directed at men’s bodies. Their bodies get evaluated on other grounds than women’s. More often, men’s clothes cover and hide the body as opposed to women’s clothes that are displayed and formed by the body (Pedersen 2000). Hence, many women have reasons to oppose the general weight gain that has taken place the last years, and are more sensitive to weight changes and variations in clothing sizes.

The heavy focus on the female body may contribute to deliberately incorrect labeling of women’s clothes. Two contentions are proposed about the relation between real sizes and size labeling in the media today: fashion manufacturers mark the sizes too large, which implies that the clothes are smaller than the labels indicate intended as a marketing advantage for clothes that should only fit thin “trendy” bodies. The opposite to this is so-called “vanity labeling”, which means that the garments are labeled smaller than they actually are in order to flatter the female consumers as they fit into a smaller size than their “real” size.

However, today’s many labeling systems have implications for both men and women, as quite a few men let women buy their clothes. Besides, it causes difficulties for consumers who cannot try on clothes themselves in the store, or for those who buy clothes on the internet or get other’s to buy their clothes. The incorrect size labeling and use of different size codes makes it generally more difficult for the consumers to find clothes that fit.

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3 The Body Mass Index (BMI) is a scale that measures body weight per square meter (kg/m2). It is calculated by dividing the body weight in kilos by height x height. The number is then put within one of the scale’s four categories: underweight, normal weight, overweight or obese.
Mistake purchases caused by inadequate sizing systems and size labeling have environmental consequences and impede a sustainable development. A study of disposal of women’s clothes found that mistake purchases and problems related to the fit of clothes are important reasons to throw away clothes (Klepp 2001). Even though consumers throw away clothes on other grounds than inaccurate size labeling, correct size labeling will be an important factor for reducing textile disposal, and relieve the environmental burden caused by textiles.

1.2 Approach and methods

Figure 1–1 illustrates the approach we apply for studying the clothing sizes and size labeling in the project. The thought bubble symbolizes ideas, experiences and opinions consumers have. The human symbolizes the physical body, the trousers indicate garments and the size labels indicate the size code given for garments. This report examines the relationship between these four elements by different methods: clothing size measurements and a consumer survey supplemented with in-depth interviews. Clothing measurements contribute with information about the relationship between size codes and clothing measures. The consumer survey gives information of the relation between the clothes, body and labeling, as the consumers experience it. Some qualitative interviews are conducted in addition, in order to get more in-depth data than what the web survey could give. The ongoing standardization work focuses on the same four elements, but the working group concentrates on the size codes. They also collect information of people’s sizes in different European countries through anthropometric studies.
1.3 The project’s objectives

Methods and approaches that bring out knowledge about the material sides of the body and clothing are in demand within the social sciences (Fraser 2005, Nettleton & Watson 1998). This report contributes to this field, as it questions the relation between clothing sizes and size labeling, and experienced body size. The project seeks to shed light on the relation between “real” clothes and size labeling, and also consumer experiences with the labeling systems. More precisely, these are the questions that the report seeks to answer: do fashion manufacturers intentionally label clothes inaccurately? Does the size labeling affect the supplies of clothes in the Nordic countries, as some consumers have trouble finding clothes in the right sizes? Who are content with today’s size labeling systems? Are there certain consumer groups who consider it harder than others to find clothes? Do the same size-labeling refer to different clothing sizes in various clothing stores? Do for instance stores that sell clothes for young people have the smallest sizes and the ones for older people larger sizes? Can fashion clothing only be found in small sizes? The project will also concentrate on clothes for people in all ages and have a focus on the potential differences between men’s and women’s clothes; are for instance men’s clothes more accurately labeled than women’s clothes?
2. Size measurements

In order to study the correlation between clothing sizes and the size code, garments have been measured in clothing stores in three Nordic countries (Norway, Sweden and Finland). For this study, trousers were selected for measurement because their form is more homogeneous than most other garments. Shirts, sweaters and other clothing for the upper body come in so many different shapes and fits that a comparison would be very difficult. Trousers are also used both by men and women, and they are easily found in most clothing stores.

2.1 Method

The measurements were done in 2007 between May and September in four cities of the three Nordic countries: Oslo, Gothenburg, Stockholm and Helsinki. Stores in different categories were selected based on target customer age group, origin of the store/chain, origin of the clothing labels sold and price class. The study includes trousers for men and women in two sizes, small and large. This was done in order to be able to see the difference between the sizes within the same model, as well as to be able to compare different models with each other. In cases where the trousers were labeled with different sizing systems, the closest related size to S or L in that system was selected. Which the corresponding sizes would be was decided beforehand based on the standard “EN 13402–3:2004 Size designation of clothes - Part 3: Measurements and intervals” and on available size tables that the clothing companies use (for example mail-order and internet sales companies). There were differences between the companies, and here the most commonly used conversions were selected. The corresponding sizes are given at table 2–1. The comparison tables are attached as Appendix 2.

Table 2–1 Corresponding sizes in different sizing systems

<table>
<thead>
<tr>
<th>Size system</th>
<th>Women’s sizes</th>
<th>Men’s sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Small</td>
<td>Large</td>
</tr>
<tr>
<td>Waist size [cm]</td>
<td>68</td>
<td>84</td>
</tr>
<tr>
<td>Letter size</td>
<td>S</td>
<td>L</td>
</tr>
<tr>
<td>Number size</td>
<td>C36</td>
<td>C44</td>
</tr>
<tr>
<td>Jeans inch size</td>
<td>27”</td>
<td>33”</td>
</tr>
<tr>
<td>UK size</td>
<td>10</td>
<td>18</td>
</tr>
</tbody>
</table>
The selection of measurement points is based on standard “EN 134022:2002 Size designation of clothes - Part 2: Primary and secondary dimensions”. Standardised measurements points were length of the leg (both inner and outer seam was measured) and waist girth. Additional measurements on width of the thigh (measured at the widest part of the upper leg) and length of seat seam were taken in order to be able to compare trousers in different styles. Some variation in measurements is expected due to different design of trousers, such as height of the waist and how tight the fit should be.

In addition to the measurement results, other information of the trousers was also registered. The registered information includes the size label and whether a pictogram was used, label/producer name, price, fiber content, color, type of trousers, care labeling, and country of origin (when given). All of the measurements have been done by the same person in order to minimize the uncertainty of measurement. The registration form for size measurements is attached as Appendix 1.

In the stores trousers were selected quite randomly. The first priority was to find something labeled in letter sizes S and L. If there were no such trousers available, other size labeling systems were selected. If the store had several different sizing systems, trousers were selected in a way that more than one system was represented (where possible).

The type of trousers and fit was registered in order to make the comparisons easier. Five different classes for trouser types were used:

1. Jeans or similar
2. Straight/dress pants
3. Cargo
4. Sports pants or knitted
5. Other (free to describe)

The fit was registered according to the following categories:

1. Loose fit
2. Tight fit
3. Stretch material
4. Short leg (either ankle length, capri or shorts)
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Figure 2–1 Example of registration of different trouser types: 1) jeans, tight fit, stretch 2) straight/dress pants, loose fit 3) Cargo pants, loose fit, short leg 4) Leggings, tight fit, stretch, short leg.

The clothing stores were categorized into different groups based on several parameters:

- Country of origin (location of the chain head office or location of single stores)
- Type of chain based on size and location of headquarters (franchise and affiliates are counted as chains)
- Customer target age group: young, adult, or both/not known. The age limit between young and adult customer group was set to approximately 30 years.
- Price level given as average price of trousers categorized as low, medium or high. We chose to use both the price of the measured trousers, as well as the information that is available on the shop web page about their own prices.

2.1.1 Measurement difficulties and implications

To select the trousers for measurement turned out to be a problem in some stores due to the different labeling systems. For example, when looking for size 44 without store personnel’s help, size marked as EU 44 would have been selected. But when the personnel was contacted and informed of the size selection, they would recommend the German size DE 44, which is equivalent to European size 46 and, according to the personnel, should correspond to Nordic 44. This was one of the problems when selecting trousers - whether to follow the labeling strictly, or to follow the recommendations by the store personnel. For this project, we
used the German size 44 as this was a general recommendation in stores for finding size 44. Another similar problem occurred if we said we were looking for size large. The store personnel would often recommend size 40 or 42, as they would consider 44 as XL. This information was inconsistent between the stores, as some had started using the recommendations given by the sizing standard where one letter size corresponds to double number sizes, for example L equals to 44/46, whereas some followed the older system where a letter size corresponds to one number size, and L would be 40. Size 36 corresponds to S in both ways of converting the sizing systems.

Another problem was to find the same model of trousers in both sizes small and large. This was especially the case with large sizes for women, and sometimes the small sizes for men. Often the small “boutiques” did not have a wide size selection of each trouser type. It was easier to find both needed sizes in large chain stores. In stores specializing in large sizes there were no small sizes available for measurement.

Some stores did not have the size that should have been measured, and in those cases the closest size was taken instead. For example, some jeans stores did not have jeans in size 33” for girls, and in that case the largest available girls’ jeans were measured. This could be for example size 31”, that the sales personnel thought had a “generous fit”. When managing the results, these are not used when comparing large sizes. Some brands of jeans were only available either in even or uneven inch sizes, not both, and also in those cases the closest possible size is measured, but not used as a corresponding size in the comparison.

When looking for the trousers in specific sizes, the sales personnel often commented the sizes of their clothing. Typical examples were “Those trousers have small sizes, they are Italian”; or “That label has generous sizes”. However, it was much more common to hear comments that the sizes were small, than that they were larger than normal.

The measurement method had to be modified when measuring very elastic trousers. Two waist measurements were taken instead of one; minimum and stretched length. The average of these two measurements was used in the results. Afterwards, when examining the results, it became clear that the flexible, knitted trousers came out with the smallest waist values. These results have higher uncertainty of measurement, because there is no absolute value for waist circumference, but more of a range of possible values. Therefore, the results for waist girth do not include these types of trousers (10 pairs of trousers). The last pair of trousers in figure 2–1 is an example of typical trousers to be excluded from the results. However, trousers with only slightly elastic waists were included.
2.2 Variations in trousers’ measures

In total 152 different trousers models were measured in two sizes, giving a total of 304 trousers that were measured in 59 stores. Some of the trousers are not included in the comparison of sizes, because not all models were found in the correct sizes, and some materials were flexible and therefore the waist girth measurement became too uncertain. When the results are given, the number of trousers used is given as N.

2.2.1 Waist circumference

The results for waist circumference measurements are presented in table 2–2 for all the four measured categories (small and large sizes for women and men). Each measured category includes the mean value and variation in waist girth for the three most common size-labeling systems used in the Nordic countries.

Table 2–2 Waist girth results. The mean waist girth and variation for each measured size in three different sizing systems (These results exclude trousers made of highly elastic materials) N=263

<table>
<thead>
<tr>
<th>Women's small sizes</th>
<th>Women's large sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>To fit 68 cm waist</td>
<td>To fit 84 cm waist</td>
</tr>
<tr>
<td>Number size 36</td>
<td>Number size 44</td>
</tr>
<tr>
<td>Letter size S</td>
<td>Letter size L</td>
</tr>
<tr>
<td>Jeans size 27&quot;</td>
<td>Jeans size 33&quot;</td>
</tr>
<tr>
<td>Mean 76.5 cm</td>
<td>Mean 90.7 cm</td>
</tr>
<tr>
<td>Total variation 17 cm</td>
<td>Total variation 21 cm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Men's small sizes</th>
<th>Men's large sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td>To fit 80 cm waist</td>
<td>To fit 92 cm waist</td>
</tr>
<tr>
<td>Number size 46</td>
<td>Number size 52</td>
</tr>
<tr>
<td>Letter size S</td>
<td>Letter size L</td>
</tr>
<tr>
<td>Jeans size 31&quot;</td>
<td>Jeans size 36&quot;</td>
</tr>
<tr>
<td>Mean 83.4 cm</td>
<td>Mean 95.2 cm</td>
</tr>
<tr>
<td>Total variation 16 cm</td>
<td>Total variation 15 cm</td>
</tr>
</tbody>
</table>

The results show great variations in waist size between trousers that should be the same size according to the size code. A variation of over 15 cm in circumference was found in all the four categories. The greatest variation can be found in large sizes for women; a total of 21 cm. In some cases trousers size small have wider waist girth than trousers labeled size large. This is presented with a red area in figure 2–2. It suggests that a size medium would overlap both small and large sizes to a great extent.
Figure 2–2 Variation in measured waist circumferences. Area included both in small and large size is colored red. N=263

Table 2–2 also shows body dimension (waist circumference) for each size. When comparing this value to the measurements, it is important to take into account the difference between measures of the clothing sizes and measures of the human body. The waist circumference of a person should be a couple of centimeters less than the waist girth of trousers for suitable fit. The waist of some trousers was smaller than the body they should fit. The biggest difference was found within the large sizes for women, where the waist measurement of some trousers was 5 cm smaller than the body they should fit.

Some variation in waist girth is expected due to different design of trousers, such as height of the waist and how tight the fit should be. Women’s trousers with low waist could be expected to have larger waist girth, but the measurements did not indicate that. However, we saw a tendency that trousers with a higher waist were on average slightly smaller in girth.
The different sizing systems are compared in figure 2–3. It indicates that waist girth of trousers labeled as size 44 can vary from 85 to 100 cm. Trousers labeled size 44 are often larger than trousers labeled size L. The inch size is in between these two size groups. The difference between L and 44 might partly be due to the inconsistent correspondence of the two sizes, whether one letter size equals double number size, or just one, as discussed earlier.

The variation within the small sizes for women is generally less than within the large sizes. Still, when looking at the extremes within this size group, the smallest measured waist girth was 17 cm smaller than the largest. When comparing the different sizing systems, average S is only 2 cm smaller around the waist than an average 36, and size 27” is in between these two. The order is the same as for large sizes. The fact that size 36 equals small in both the old and the new way of converting the letter sizes may have helped to reduce the difference.

The variation in men’s clothing is almost at the same level as in the small women’s sizes; 15–16 cm in each size group. The average for all measured garments shows that inch sizes have the largest average waist size and letter sizes the smallest.
Figure 2–4 shows the difference in waist girth between the sizes small and large for each model of trousers. In some models the difference between small and large is only 6 cm, whereas in other models the difference is up to 21 cm.

2.2.2 Thigh circumference

The widest part of the upper trouser leg was measured at right angle from the crotch to the side of the trousers. This measuring point was used as it can be found in all trousers and makes it more comparable than a general hip or thigh measurement, where the measuring point could vary more and the result become more uncertain. The value was multiplied by two in order to get the complete circumference. The measurement is here called “thigh circumference”, even though it is not actually the same measurement as it would be on the human body.

As figure 2–5 indicates, the results of this measurement were similar to the waist measurements. The thigh circumference within each size group varied greatly, from 17 to 24 cm.
We also compared the different types of trousers in order to see if that affects the sizes (figure 2–6). In trousers for women the jeans had on average the smallest thigh and waist girth, and cargo pants the widest. In large sizes the straight/dress pants, too, had wide thigh measures. For men’s trousers, the straight/dress pants had the smallest waist, but jeans the smallest thigh circumference. Cargo pants had the widest thigh measures, but were almost on the same level on average waist measure as jeans. The thigh girth also corresponds to the registered fit of trousers; the loose models have on average larger girth than the tight-fitting models, as expected.
Figure 2–7 shows the differences in thigh circumference between the sizes small and large for each model of trousers. In some models the difference between small and large is only 3 cm, whereas in other models the difference is up to 14 cm.

![Figure 2–7 Difference in thigh circumference between sizes small and large (mean value and variation) N=126](image)

### 2.2.3 Length

Trousers’ inseam length was measured in order to be able to compare the leg lengths. The sample included trousers in full length, but also shorts and capri trousers. The complete variation of lengths is shown at Figure 2–8. The trousers with short legs are excluded later on from the results for the inseam length.
Only 28% of the size labeling of the measured trousers included information of the inseam length. When the length was given, the most common way is to give it as inch length. Some trousers were also labeled either with the length in centimeters, or with wording such as “long” or “regular”. The inch length was most common for jeans, and centimeters for men’s dress pants. In some of the shops there were trouser models available in more than one length, especially jeans. Some of the dress pants did not have ready-sewn legs, so the length would have to be adjusted afterwards to the customer’s leg length.

The mean, minimum and maximum inseam length of trousers is presented in figure 2–9. This figure includes only trousers where length is not given on the size label. The standard deviation in inseam length of the measured trousers was not as high as expected, varying only 2–3 cm on average, but there were some exceptions giving a higher total range of 9–14 cm within each size group. In all the measured size categories, the average trousers length was shortest when the waist size was given in letter sizing, and longest when the size was given in inch sizes.
Figure 2–9 Inseam length of trousers for the different size categories (mean value and variation) when the length is not given on the size label N=150

Figure 2–10 shows the inseam measurements for the trousers where the length is given on the size label. This illustrates that when the trousers length is given, it is quite accurate for all measured trousers. Normally, there is not more than 2 cm deviation, and average deviation is less than 1 cm.

Figure 2–10 Mean trousers inseam length for trousers where length is given on the size label
N=85 Figure includes all waist sizes and trousers for both genders
2.2.4 The relation between size variations, store categories and brands

The myths concerning vanity labeling, or the opposite, that clothes are smaller than the size labeling suggests, are associated with different types of stores and with the target age group of the customers. For this reason, we examine possible differences in sizes between store categories.

Customer target age group

The stores were divided into categories based on their target customer group’s age. For this project, a simple distinction between “young” and “adult” was used. When deciding the delineation of categories, both the store’s own descriptions of their customers (often available on the web page), as well as general impression of the store were used to aid the categorization. The approximate age limit between young and adult was set to 30 years. The distinction was not possible to make in some cases, for example when the store had a special style that was not age depended, or if the store had separate departments for young and adult, and it was not registered in which department the trousers were measured. These results were registered as “not known”. However, an attempt to categorize all stores was made in order to have a large enough database for making comparisons.

![Figure 2–11 Mean trousers waist and thigh circumferences in stores with different customer target age group N=212 The “not known” category is not included in this figure](image)

When comparing the average waist girth of trousers sold in stores aimed at different age categories, we can see a small difference in women’s clothing, but not in men’s (figure 2–11). The women’s small sizes have on average 2 cm smaller waist girths in stores for young than in stores for adults. The difference is even greater for large sizes; the difference between young and adult is about 5 cm. The same results can be seen when
comparing the thigh circumference. There is a significant difference in the thigh girth in women’s clothing (5–6 cm) when comparing the stores aimed at different age groups. These differences were not found in the measurements of men’s trousers. The same comparison was made when separating different trouser types and the results showed the same tendencies. Figure 2–12 shows these results for the two most common trouser types in the sample (jeans and straight/dress pants).

![Figure 2–12 Mean trousers waist circumference of jeans and straight/dress pants in stores with different customer target age group N=174](image)

Figure 2–13 presents the difference between size S and L for young and adult customer groups. The figure includes both waist and thigh measures, as well as trousers for men and women. The columns show average difference between the sizes, and the upper and lower limits show the total variation that could be found in the sample. The figure indicates that on average the difference between sizes S and L in women’s trousers is bigger for adults’ clothing than for clothing for the young. No such difference can be seen in the sample for men’s trousers.

A similar comparison was made for trouser inseam length, but no significant differences could be seen between sizes for different customer age groups.
Figure 2–13 Difference between size S and L waist and thigh circumferences for shops with different customer age groups (mean value and variation) \(N=102\)

Shop price level

The shops were divided into three categories based on the price level in order to study any systematic differences in trouser sizes between cheap and expensive shops. The division was mainly based on the price of the trousers that were measured. If several trousers were measured in the same store and they belonged to different price categories, the average store price category was either based on average price, or the higher price that would apply for jeans or dress pants instead of leggings. The categories used and the number of trousers belonging to each category is given in table 2–3.

**Table 2–3 Price categories**

<table>
<thead>
<tr>
<th>Price class</th>
<th>Average trouser price</th>
<th>Number of trousers in the category</th>
<th>Number of stores in the category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economy/low price</td>
<td>&lt;49 EUR</td>
<td>116 (38%)</td>
<td>21 (38%)</td>
</tr>
<tr>
<td>Average/ordinary price</td>
<td>50–99 EUR</td>
<td>123 (40%)</td>
<td>26 (44%)</td>
</tr>
<tr>
<td>Expensive/Exclusive</td>
<td>&gt;100 EUR</td>
<td>66 (22%)</td>
<td>12 (20%)</td>
</tr>
</tbody>
</table>

Figure 2–14 presents the results for average waist and thigh circumference of different price categories. There is a slightly smaller waist and thigh size in the economy/low price category for women’s trousers, but as it is only about 1 cm in the waist it cannot be considered as a significant difference. We cannot either see any significant difference between average-priced and expensive trousers in the sample’s sizes.
Brands
The shops are first categorized into four groups based on which types of brands they sell. The brands are specified as either the stores’ own, external, or “non-brands”. The shop categories are:

- Only own brand(s), for example H&M, Benetton group
- Mix of own and external brands, for example Match
- Only external brands. Includes mostly single stores, small chains or department stores.
- “Non-brands” (not recognized brand names). Includes mostly free-standing stores or very small chains.

Figure 2–15 does not show a difference between the trousers that are categorized as the store’s own or external brand, but we see a small difference in the “non-brand” category, where the trousers are smaller than average. When examining the stores listed in this category, we could see that they are mainly quite cheap, not connected to any chains, and more often sell women’s clothing. Unfortunately, in our sample only women’s trousers can be found in this category, and therefore we do not know if these trousers would have been smaller in men’s clothing as well. The sample included mainly jeans in this category. Earlier we showed that jeans have smaller average waist circumference in women’s trousers than other types of trousers, and therefore an additional comparison is made in figure 2–16 that only includes this type of trousers. It shows that the difference is still visible, especially for women’s large sizes.

The difference in sizes of “non-brand” products could partly be explained by economical reasons. These products are often made in companies located for example in Asia or South-Europe, but are sold interna-
tionally. The production is not ordered from North-Europe and the clothes are therefore not designed by Nordic designers. The step of re-labeling the products for adjusting them to different populations is missing, as it would add an extra cost. These “non-brand” trousers were often labeled with only one size code, such as L, whereas several of the brand products have size labeling with many different size codes valid for different countries. Naturally, the size Large for Asian population is different from the Large of North-European population, as long as there is no international standard defining the sizes.

![Image of Figure 2–15 Mean trousers waist circumference by store brands](image1)

**Figure 2–15 Mean trousers waist circumference by store brands N=257**

![Image of Figure 2–16: Mean waist circumference of women’s jeans by store brands](image2)

**Figure 2–16: Mean waist circumference of women’s jeans by store brands N=52**
Origin of the trousers
One typical claim is that the origin of the trousers affects the sizes, for instance that South-European trousers are smaller than North-European. In order to see if the origin of the trousers affect sizes, we have used three different categories for evaluating it:

1. Country of origin of the brand (in the case of chain store the location of the headquarters)
2. Production country of the trousers (when given)
3. Country where the trousers are measured for the study.

The information for the two first points was not always easy to find, and unfortunately some data is missing. However, we could place 88% of the trousers’ brands into categories based on their home countries. Figure 2–17 includes the average waist circumference results for the trousers in countries where there were at least three trousers per size group to be measured.

![Figure 2–17 Mean trousers waist circumference by brand origin (excludes results for trousers where less than three models per country are measured) N=247](image)

The origin of the brand does not seem to show any big, systematic differences in sizes. Some tendencies can be seen in Danish sizes that seem to be slightly larger than average in all four categories. For men, also the American sizes come out slightly larger. And surprisingly, for women the Spanish sizes are slightly above the average. The brands with unknown origin have the smallest size here, which correlates well with the earlier findings. The Finnish and Italian brands are among the smallest on average, closely followed by the Norwegian brands. However, several countries are underrepresented in our sample, by having only a few clothing
chains, for us to be able to make certain conclusions that would apply for the whole country. In order to get a larger data basis, we combined the different types of chains based on the size and location of their headquarters. These results are presented in figure 2–18.

![Figure 2–18 Mean trousers waist circumference by chain type and origin N=263](image)

The figure 2–18 shows that there is no significant difference between the sizes of North and South-European trousers, as opposed to what we expected. This may be explained by the fact that trousers were measured in Nordic Countries, and they were usually labeled with several size codes that were adjusted to the population of the different countries. The sample includes only large South-European chains that are used to operating in international markets. One can speculate that the measurement results may have been different if they were made in a South-European country. Figure 2–18 shows the same tendency as figure 2–15. The small chains and free-standing stores have slightly smaller trousers for women’s large sizes, and these are partly the same “non-brand” products as shown earlier.

The production country was given only in 30% of the trousers in the sample. Of these, 51% are made in Asia, 43% in Europe and 7% in Africa. In terms of countries, China, Turkey, Italy and Romania featured prominently in the sample. None of the trousers were labeled as made in the Nordic countries. When the sizes of trousers produced in different countries are compared with each other, there is very much variation, which is very random due to the small number of trousers that were labeled with country of origin, and of several countries only one pair of trousers was represented in the sample. Therefore, it is more reliable to compare only the two main production continents with each other, as it is

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4Zara, Mango and Benetton
done in figure 2–19. It shows that there are no significant differences in the sample between the production continents.

![Figure 2–19 Mean trousers waist circumference by production continent of the trousers N=258](image)

Finally, to see the difference between Nordic countries where the measurements were made, the average waist circumference for trousers measured in the three Nordic countries is shown in figure 2–20. The variation is minimal staying within 1 cm, and altering between the different size categories, and therefore we cannot see any significant systematic difference.

![Figure 2–20: Mean waist circumference by the country where the trousers were measured. N=263](image)

Our data does not indicate systematic differences based on origin of the brand, where the garment was produced, or the three Nordic countries...
where the measurements were made. Unfortunately, there was some data missing, as not all stores had the sizes that were to be measured, and were therefore left out of the study. Examples of these were exclusive stores that did not have size 44 for women, and stores specialized in large sizes did not have the small sizes.

We saw a variation between the measured trousers in most stores, and therefore we must not draw conclusions that all trousers in a store would be either larger or smaller than the average. However, we see some general tendencies. The stores which were not part of a chain and which sell unknown brands and cheaper clothes in young styles have smaller sizes than average. This was also the case with some chain stores aimed at teenagers such as Bik Bok. Some of the fashion brands, such as Armani jeans, were a bit smaller than average as well. However, other high-fashion brands had average-sized waist sizes.

There were also some stores where the clothes were slightly larger than average. These were usually average-priced and aimed at adults. Some examples of these were Finnkarelia and some of the IC Company’s brands sold in stores like In wear, Part two and Jackpot. Other Nordic-based international chains such as KappAhl, H&M, Cubus, Lindex and Seppälä were mostly quite average in waist sizes.

### 2.2.5 Smallest and largest sold size

One of the research questions was which were the smallest and largest sizes sold in the different shops. This question was placed to most of the visited stores to the sales personnel, or checked by studying the clothing selection available. Often the personnel had problems answering, as they had either different sizes in different clothing labels, or because they had a small selection of clothing that was sold in larges sizes, whereas most of them were not sold up to that size, for example only one type of jeans that would be sold in a couple of sizes larger than any other jeans sold in the store. Some jeans stores for young people had only up to size 32” in the girls’ section, but the personnel said it was not a problem, because larger sizes were available in the boys’ section. According to them, bigger girls could choose some trousers there that were considered to have unisex fit.

The availability of sizes varied especially according to the store size. Smaller stores have usually not so many of each trouser type, and not many sizes are taken in. Some stores had own clothing selection for larger sizes (usually starting from size 44) that is in a separate section of the store. These were typically the Nordic chains such as H&M; KappAhl, Lindex and Seppälä. The models that are sold in these sections are not the same as the ones that are sold in the section for sizes 42 and below. Some stores had a different approach and had a wider size selection up to size 46 of the same garments that are sold in small sizes, such as Cubus.
Sizes between 36 and 40 are easiest to find for women. Size 34 can be found in some places, whereas size 32 is quite rare. For bigger sizes it is quite easy to find size 42, and 44 is not too difficult either. For 46 or bigger you often need a specialized store or a separate department within the store. Mail-order companies often have a wider selection in larger sizes. When the sizes are labeled with letter sizing, it is often easy to find sizes between XS and L for women, a little bit more difficult to find XL, and even more rare to find sizes XXL or bigger. For men, it was rarer to see size XS than XL, and XXL was quite common too, at least in stores targeted for adult customers. We did not see a difference between the three Nordic countries in this matter.

Only one of the visited stores had an approach where all the garments were sorted on the shelves by size rather than model. This was the Norwegian company Adèle, where the selection started with two racks of clothes in size 36 and continued to size 50. They had the widest selection of clothes around size 42.

2.3 Summary: Immense variations, but the store type means less than expected

Measurements of the trousers waist girth, thigh girth and inseam length reveal that differences within clothing sizes are immense. A pair of trousers labeled L could be smaller than another labeled S. The inseam length was up to 14 cm different within trousers labeled as the same size. In general, we found discrepant sizes between trousers for men and women, as the size variations are more wide-ranging for women’s clothing than for men’s clothing. The results indicate that it is necessary to try on trousers before buying them; not only to see if the model fits, but also the size.

Even though the variations are immense, it is not easy to find systematic variations within sizes. Our data does not indicate systematic differences based on origin of the brand, where the garment was produced, or the three Nordic countries where the measurements were made. Different age profiles of the clothing stores appeared to have a minor impact on the sizes of the measured trousers. We saw a tendency indicating that stores selling trousers aimed at young females have slightly smaller sizes than stores aimed at adult women, but this difference is so small that it does not justify generalization. We did not see any systematic variations for men’s trousers.

There was variation between the measured trousers in most stores, and therefore it is not easy to draw conclusions that all trousers in a store would be either larger or smaller than the average. However, we see some general tendencies. The stores which were not a part of a chain and which sell unknown brands in cheap, young styles have smaller sizes than aver-
age. This was also the case with some chain stores aimed at teenagers such as Bik Bok. Some of the fashion brands, such as Armani jeans, were a bit smaller than average as well. However, other high-fashion brands had average-sized waist sizes.

There were also some stores where the clothes were slightly larger than average. These were usually average-priced and aimed at adults. Some examples of these were Finnkarelia and some of the Danish IC Company’s brands sold in stores like In wear, Part two and Jackpot. Other Nordic-based international chains such as KappAhl, H&M, Cubus, Lindex and Seppälä were mostly quite on the average in waist sizes.

Unfortunately, there was some data missing, as not all stores had the sizes that were to be measured, and were therefore left out of the study. Examples of these were exclusive stores that did not have size 44 for women, and stores specialized in large sizes did not have the small sizes.

The availability of sizes varied between the stores. It is more difficult to find big sizes for women and small sizes for men. Women using sizes 44 or bigger often have to go to special stores for big sizes, or separate departments in some chain stores. Girls that use over 32” jeans size may have to buy their jeans in boy’s section of a store if they wish to buy their trousers in jeans stores aimed for young people. For men, it is easier to find size XL than XS in most of the store’s selections.
3. Consumers’ opinions regarding clothing sizes and size labeling

In addition to the relationship between size labeling systems and clothing sizes, we wanted to collect information on consumers’ experiences and opinions concerning clothing sizes and size labeling, as well as the perception of the body. We were interested in consumers’ opinions on existing systems, and furthermore on the new proposed European size labeling system. We are going to discuss these themes in the context of consumers’ shopping habits, clothing styles and body size.

3.1 Methods

Quantitative data was collected with a web-based questionnaire in three Nordic countries. In order to develop a better understanding of how consumers experience shopping for clothes with today’s size labeling systems, the quantitative survey was subsequently supplemented with qualitative interviews of selected consumers in Norway. The methods were selected in order to gain a broad selection of Nordic consumers within a strict budget.

3.1.1 Qualitative data collection: In-depth interviews

Qualitative interviews are characterized by their descriptive form and intend to bring out the informants’ own depictions of their experiences of and reflections on a specific subject. This material is not representative of customers in general, but provides more in-depth comprehension.

The qualitative material consists of interviews with eight people; three men and five women aged 21–78 years. In this particular case, we were interested in gathering the Norwegian customers’ experiences with the size labeling systems; how do the customers keep informed and how do they comprehend today’s labeling systems? What is regarded problematic when it comes to buying clothes and how do they adapt their own shopping habits to the size labeling system?

The sample

Our intention with this project was to interview people with atypical body types, which may constitute an additional challenge when shopping for clothes? People who have experienced their body as an obstacle when
shopping clothes could possess valuable knowledge of today’s size labeling systems. Two examples of this would be large or unusually tall persons, as they meet challenges when shopping for clothes that would fit their bodies. We were especially interested in talking to men, because 81 percent of the respondents to the quantitative survey are women and consequently men’s experiences have been less illuminated by the web questionnaire.

In order to get in touch with informants matching our criteria, we attempted to get in touch with male customers while they were shopping clothes. We contacted a few stores that specialize in clothes for large and tall men and addressed our enquiry to the store managers to get permission to talk to the customers. However, the plan did not prove practical, as the customers did not have time to talk to us and loud music made it difficult to record the interviews. Three interviews were carried out with this approach, but they were too short to get a deeper understanding of the customers’ experiences. For this reason, we decided to widen our scope and recruit informants through colleagues who were familiar with the project. This approach resulted in five longer interviews with customers who had different clothing needs and habits, and all with different body types and experiences. The interviews were carried out by the three authors.

The interviews
There are different ways to make an interview guide, and we found the half-structured guide suitable. This implies that the topic is fixed, but not the order of the questions. The questions were formulated in a manner that made the informants describe and reflect on their experiences with the size labeling system. It all took the form of a conversation more than a interview proper with a pre-determined order of questions. This was important, as these interviews were supposed to bring supplementary information to the quantitative survey. We were looking for thick descriptions and experiences from customers who have met challenges when shopping clothes. The interviews lasted from two (in the stores) to 75 minutes. All interviews were tape-recorded and transcribed. The informants’ experiences with the size labeling system will be presented together with the quantitative material, in order to shed light on and exemplify the results from the survey. All informants are presented by gender, age and reported size in the analysis.

3.1.2 Quantitative data collection: Web survey
The survey was conducted through a web-based solution in order to get a large sample in a cost-effective way. Three Nordic countries were selected for the survey: Finland, Norway and Sweden. Answers from other countries were welcome as well, but no active recruitment for respon-
dents from elsewhere was carried out. The project web page and ques-
tionnaire were available in four languages: English, Swedish, Norwegian and Finnish. The questionnaire draft was discussed with the project part-
ners and tested by colleagues and some consumers before taken into use. The original questionnaire was prepared in English, while the final ver-
sion was also translated into the three respective languages by project partners. The questionnaire was available at www.sizes.no for 5 months from 25 October 2007 to 25 Mars 2008. It was programmed in PHP (Hy-
ertext preprocessor) language and the results were saved in a MySQL database. All the technical solutions and data processing were done by SIFO.

The questionnaire included a total of 28 questions, some of which are divided into different categories. The nine first questions concerned respondents’ social background. These background variables were:

- Gender
- Age
- Employment status
- Level of education
- Household type
- Number of children living in the household
- Yearly personal gross income
- Country of residence
- Area of living (size of the city and distance to closest store selling clothing)

The following 19 questions concerned the respondents’ experiences of his or her body type, clothing purchase habits, difficulties they may have with different types of clothing and with finding the correct sizes, experiences with clothing size labeling systems, and what they think of the new, proposed standardized size labeling. Most of the questions had alternative answers that the respondent could tick off. In addition to that, several questions included the option to write additional comments. Several re-
pondents utilized this opportunity and made personal comments. All comments that are used in the analysis were translated by the authors into English. Each quotation is presented with a code that gives information about the respondents: Nationality, gender, age and reported letter size, for instance Norwegian female, 25, size XL.

Most questions were obligatory, and it was not possible to send the questionnaire without answering them first. A few questions were op-
tional, such as yearly income, weight and height of the respondent, as well as all the comment fields. The original, English questionnaire is attached in Appendix 3.
Recruitment of respondents
The respondents were recruited through three channels:
1. Media publicity
2. The Finnish Consumer panel
3. Work-related and private contacts through e-mail lists and web pages

All three project partners used their available channels for recruitment, which resulted in different recruitment methods from the involved countries. All partners sought to get attention from the national media. The partners encouraged the media to write about clothing sizes, and at the same time mentioned the ongoing research and questionnaire available at www.sizes.no. This method worked with varied success. We had most success in Finland, where two major newspapers published small articles with request to fill in the questionnaire (Turun Sanomat Sunnuntai-sivut 4.11.2007, Helsingin sanomat 5.12.2007).

In Norway the project got a lot of publicity, but the request to fill in the questionnaire was not quite as pronounced as in Finland. A four-page article discussing clothing sizes and the perceived problems with these was published in the weekend magazine of Oslo’s leading newspaper. The article included information about the project and the address to the questionnaire, but it did not request the readers to answer the questionnaire, and the address was not easy to spot in the article text (Aftenposten A-magasinet 9.11.2007). A more successful publicity stunt was when the project leader was interviewed on the national radio-show Norgesglasset (7.12.2007) and the host of the show encouraged the listeners to fill in the questionnaire. The radio program has also a webpage with a written article of the interview and link to the webpage. In addition, a small article concerning clothing labeling including sizes were published in Norwegian Asthma and Allergy association’s bulletin (AstmaAllergi 6–2007) with a reference to the questionnaire.

The Swedish media did not show much interest in the project. A press release was sent to several newspapers, but unfortunately only one small article with the address to the questionnaire was published during the project time (Göteborgsposten 21.2.2008). The media showed a general interest in the topic body/clothing sizes, but did not mention the questionnaire.

The project partner in Finland (NCRC) has a panel of about 1000 consumers that are regularly used for conducting surveys. The participants are volunteers that receive a yearly subscription of a consumer magazine as a reward for their participation. According to NCRC, the participants take part in the panel because they wish to influence consumer matters, be informed of ongoing research, and get information about other consumers’ opinions. The membership is limited and new members are recruited by announcements in newspapers. The panel members (over 16 years old) and their family members were encouraged to answer the ques-
The third recruitment method was through internet-based channels such as postings to e-mail lists, newsletters and bulletins, links on project participant homepages, as well as work-related and private contacts. A Facebook-group was created and the invitation was mailed to all Facebook contacts and friends, and they were encouraged to forward the invitation to other contacts. In addition, different e-mail newsletters were used, for example a newsletter for Norwegian working group for environment and textiles (Grip). In Finland the questionnaire also got publicity in two discussion forums, where topics were created by users that had found out about the ongoing research. These were two very different forums, one for weight training (www.pakkotoisto.com) and one for the Martha organization5 (www.martat.fi). These were observed by the project leader after the survey was finished.

The data will, due to the selected research method, not be representative for the whole population. All of the respondents volunteered to take part in the research, and assumingly often participated because they have special interest in the subject (with the exception of the consumer panel in Finland). In addition to that, a web-based questionnaire excludes respondents that do not have access to the internet. However, we wished to get broad and comprehensive data and therefore set a high goal of receiving 3000 answers, out of which 1000 would preferably come from each participating country. This turned out to be difficult to obtain. The total number of respondents was 2834, which is not that far from our goal, but the distribution was very uneven. We will get back to the distribution of respondents in chapter 3.1.3.

Data processing

The answers sent from the web were saved in a database on SIFO’s server. In addition to the answers to the questionnaire, the database includes an ID number for each submitted form, as well as the exact time of when the answers were sent (timestamp). The database was first exported to Excel for further processing. Before taking the answers to analysis, a quality check had to be made in order to remove the answers that were sent when testing the questionnaire, the answers that were sent more than once, and the unserious answers. In cases where the respondent had sent the answers in twice, the later one was kept for the analysis and the first one omitted. The unserious answers were removed when it was obvious that the person had not bothered to answer the questions. Some of the respondents had spiced up the comments with a bit of humor. These responses were accepted as long as the answers were related to the ques-

5 The Martha organization is a Finnish home economics organization, which was founded in 1899 to promote the quality and standard of life in the home. It also carries out cultural and civic education.
tions and it did not look as if the respondent had been insincere. The total number of omitted answers was 35, out of which 17 were answers sent more than once, and 18 were unserious answers. These are not included in the analysis of the data. We also decided to exclude respondents under 15 years of age, because the survey was designed for adults. This excluded 25 answers. The number of respondents is hence 2834.

The fields that the respondents could fill in themselves had to be looked through in order to make them more homogenous and enable the statistical analyses. For example, when giving the yearly income several respondents wrote the sum in thousands of euros or kroner, instead of giving the complete value with all the zeros. Also, some respondents answered in writing instead of giving any sum, such as “student loan”. These written explanations are not changed into any numerical value as it is difficult to know how much exactly the students get in the different countries (the practices between student grant and loan varies between the countries). Some respondents gave estimates of their yearly spending on clothing, such as “200–300 euros”. To be able to process these answers statistically, they were changed to the average value of the estimate, in this case 250. The questionnaire did not include ready-made categories to the yearly income or spending on clothing, because the countries have different currencies and the respondent answering in one specific language could be living in another country. When the answers had been processed in Excel, they were exported to SPSS. All of the data processing was carried out by SIFO.

The cases are not weighted, because the selection is not representative for the whole population in each of the countries.

Problems with the web based questionnaire
All of the comment fields had a specified, limited amount of space (255 characters). Therefore, the last parts of some very long answers were not saved to the database. Luckily, there were not very many that long answers and in most of them the main point of the comment was at the beginning, and they often had an example at the end.

One programming failure occurred when processing the data. In question 22 “Do you often buy clothes for others than yourself?” the comments were not saved to the database, and answers ticked for alternative 4 and 6 did not get saved. This will reduce the possibilities to use these results further in the analysis. Fortunately, the other answer alternatives were saved as planned and will provide some information about the subject.
3.1.3 The quantitative sample – an overview

A total of 2834 people responded the web questionnaire. The respondents were mainly Finnish, as is seen in table 3–1. This may be caused, as seen in the previous chapter, by the Finnish consumer panel and a high rate of media publicity. Almost 500 Norwegians and about 300 Swedish participated, as well as a few respondents living in other countries.

Table 3–1: Total number of respondents from the different countries.

<table>
<thead>
<tr>
<th>Number of respondents</th>
<th>Finland</th>
<th>Norway</th>
<th>Sweden</th>
<th>Other countries</th>
<th>Total</th>
</tr>
</thead>
</table>

The background variables for the respondents are presented in table 3–2. The values are given as percentage for each country. We see an obvious female domination, as 81% of respondents are women. The most likely explanation to this is that women are often more interested in the survey topic; clothing and clothing sizes. Women are also generally more willing to answer surveys (Mordal 1989). A third explanation could be that the recruitment channels may have had greater appeal to them.

The two youngest age groups are overrepresented in comparison to the average of the population, and the oldest age group is underrepresented (the 60+ group is 27% of the total population, but only 7% of the respondents). The majority of respondents have higher education, and live either in the capital city or another large city. Both the age and the education distortion can partly be explained by the way the survey was conducted; the young and the well educated have more often access to the internet, and are more frequent internet users than the elderly or the lower educated. An additional possible explanation is that these groups may have a greater interest in the subject.

As the sample is not representative for the population of the three countries, we have taken that into account when conclusions are drawn. The results cannot be used for generalizations for the population of the countries as a whole, or for comparing the countries with each other. However, we still have a large number of respondents that can be compared with each other in the sample, and we can use the sample as an example of consumers in the Nordic countries. We have an overrepresentation of young female respondents and of Finns. This opens for more detailed analyses of these groups and for greater certainty in the conclusions we draw from our sample insofar as they concern the population groups to which these belong.
Table 3–2: Respondents divided by background variables given as percentage of each country and compared to population (15 years and older)\(^6\)

<table>
<thead>
<tr>
<th>BACKGROUND VARIABLES</th>
<th>Finland</th>
<th>Norway</th>
<th>Sweden</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sample [%]</td>
<td>Population [%]</td>
<td>Sample [%]</td>
</tr>
<tr>
<td><strong>GENDER</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>21</td>
<td>16</td>
<td>9</td>
</tr>
<tr>
<td>Female</td>
<td>79</td>
<td>84</td>
<td>91</td>
</tr>
<tr>
<td><strong>AGE GROUP</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15–24 years</td>
<td>21</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>25–39 years</td>
<td>41</td>
<td>49</td>
<td>42</td>
</tr>
<tr>
<td>40–59 years</td>
<td>30</td>
<td>28</td>
<td>33</td>
</tr>
<tr>
<td>&gt;60 years</td>
<td>8</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td><strong>EDUCATION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary and lower secondary school</td>
<td>10</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Upper secondary education</td>
<td>37</td>
<td>17</td>
<td>25</td>
</tr>
<tr>
<td>Higher education (university or college)</td>
<td>49</td>
<td>76</td>
<td>65</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td><strong>EMPLOYMENT STATUS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed (full or part time)</td>
<td>62</td>
<td>73</td>
<td>74</td>
</tr>
<tr>
<td>Unemployed</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Non working (retired, homemaker etc)</td>
<td>13</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Student</td>
<td>22</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>AREA OF LIVING</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital/large city</td>
<td>66</td>
<td>56</td>
<td>60</td>
</tr>
<tr>
<td>Medium/small city</td>
<td>25</td>
<td>23</td>
<td>26</td>
</tr>
<tr>
<td>Village/countryside</td>
<td>9</td>
<td>21</td>
<td>14</td>
</tr>
</tbody>
</table>

1) Figure gives percent of employment status of total population aged 16–64 years.
2) Figure gives percent of students of total population aged 15–74 years

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3.1.4 Background information

This chapter provides a presentation of the sample’s background information: how much does the sample make per year? How much of this is spent on clothing? This first section presents income levels according to gender, age and length of education in order to provide an overview.

![Figure 3–1: Yearly gross income before taxes and other deductions in Euros in 2007 for men and women. Percent. N = 2547](image)

As figure 3–1 shows, there are considerable differences between the genders in the four categories. Almost 2 out of 3 men make under €14999 or over €40001, while the women are relatively evenly distributed in the four categories. The differences even out if we look at the top two categories compared to the lower categories. It is important to underline that men generally are underrepresented in the sample, and also that the sample includes a large group of students (21 percent). Hence the results can be affected by these differences, as we see in figure 3–2 where we take a look at the income levels by age.
Most of the respondents under 24 years make under €14999 per year, and as previously mentioned this is probably caused by a large number of students in the sample. The highest income levels are found in the age group between 40 and 59 years, where we also find the fewest who make under €14999. This corresponds with statistics from Statistics Norway from 2007.7

As we see there is a connection between length of education and income level. The income levels increase with increasing length of education. For

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this reason the division of income categories can be characterized as suitable. It still is important to point out that this is not representative for the Nordic population, but only for this specific sample.

The informants were asked about how much they spent on clothing (except shoes) in 2007. The sample average was € 993, while the average for women was € 1030 and for men € 839. The figure below indicates that there are large differences between age groups and women and men.

![Figure 3-4: Estimated amount of Euros spent on clothing in 2007](image)

Both females and males between 25–39 years spend the highest amount on clothing; around €1100. The females in all age groups answered that they spend approximately the same amount, around €1000. On the other hand, we see that the amount the males spend varies a lot between the age groups. The males between 25–39 years also spend the highest amount; €1139. It is also interesting that the males under 24 and over 60 years all spend around €550. These differences imply that the males’ clothing practices vary with age and life situation. As previously mentioned this may be caused by a large part of the male students who may not have the economy to spend large amounts on clothes, while the older males are maybe used to getting clothes as gifts or having someone else buy clothes for them. It is also possible that this is a generational phenomenon, and that the younger boys will spend more money on clothes when they get older, but it is hard to say anything about this from this data material. One last explanation is that it can be difficult to estimate the amount spent on clothes for a whole year, and therefore the numbers may not be realistic. This difference is also clear in the following figure where the ratio between income and amount spent on clothing is presented.

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8 The respondents were asked to estimate the amount in their respective currencies and we converted these into Euros.
Women spend a larger amount of their income on clothes than men in both age categories. The differences between men and women increase the older they get; almost 70 percent of the men over 40 years say that they spend between 1 and 2.5 percent of their income on clothes, compared to 38 percent of the men under 40 years. We see a similar tendency when it comes to the women; still there are fewer women than men that say that they spend between 1 and 2.5% of their income on clothes. As we have seen earlier this can be caused by higher income levels among the older men, and therefore they spend a relatively smaller ratio of their income on clothing. This can also be the case for the youngest group, but the other way around: they have lower incomes and therefore maybe spend a higher ratio of their income on clothing. The youngest may also to a larger extent receive money and support from parents or student loans (Andersen 2008) and have the possibility of spending over 100 percent of their income on clothes. Another possible explanation for this tendency is that the males get their partners to buy clothes for them and/or they receive clothes as gifts, and consequently do not spend money on clothes themselves. Still, the figure indicates that this may be a cohort-related phenomenon; today’s young men will perhaps to a larger extent buy more clothes when they get older.

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9 The informants were asked to fill in their income in their local currency (SEK, NOK and Euros), and we converted the SEK and NOK values into Euros. We can therefore assume that someone misconstrued the question and filled out the fields incorrectly by not choosing the right currency.

10 269 respondents were taken out of this figure because their ratio between income and money spent on clothes was 0 %. We therefore have reason to believe that they incorrectly filled out either the income or money spent on clothing field. Another 602 are also missing from this figure because they did not fill out either the income field or the field where they estimated the amount spent on clothing in 2007. This means that a total of 326 men and 1637 women are included in the figure.
3.2 Shopping and style habits

In order to analyze how customers manage today’s sizing systems we need to know more about their shopping habits. Is it easy for customers to find clothes that fit their bodies? Do some groups consider it harder than others? And what about finding clothes that fit their desired style? Does everyone try on clothes before buying them and what garments do people buy from mail order or internet companies?

3.2.1 Clothing styles and style habits

The sample was asked to describe their clothing styles and choose from 22 different styles (and could also choose to have “no specific style” or “other” style). Figure 3–6 shows that men and women have different preferences when it comes to their styles. The comfortable style is the most representative for the sample; over 60 percent state that they have a comfortable style. The four most popular styles after comfortable are practical, simple, relaxed and classical. This corresponds with earlier findings; one study found that the most popular styles for women in the 40s were simple and classical (Klepp 2001). We see this tendency in this sample as well. Still, the comfortable style is the most popular style among women, followed by the practical, simple, classical and relaxed styles. More men describe their style as relaxed - over 50 percent of the sample say they have a relaxed style. Also among men the comfortable style is the most popular. Around 55 percent of the men describe their

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11 Styles were ordered according to popularity among men and women, but as women are over-represented in the material, their preferences weigh heavily in the figure.
style like that. The most popular men’s styles are comfortable, relaxed, practical, simple and neutral. The next figure takes up the possible relation between clothing styles and body mass index.

![Figure 3–7. Description of clothing styles by BMI groups over 25 (overweight or obese) or under 25 (normal/underweight)
Percent. 12 selected styles. N = 11779](image)

The 12 styles that most of the sample agreed on were analyzed according to body mass index to check if there was a correlation between weight and desired style. The figure illustrates that there are a few differences when it comes to styles and body mass index, especially for the ones that describe their style as comfortable, practical, sporty, fashionable or trendy. People with different body mass indices have different style preferences. More people with a BMI over 25 say that they have a comfortable or practical style than the ones with a BMI under 25. Correspondingly, more of the ones who say that they have a BMI under 25 describe their style as sporty, fashionable or trendy.

In order to investigate which styles were easy to find today in shops with different sizing systems. The informants were also asked if they found it easy to find clothes that fit their style, as well as their body shape and size. The results are presented in the next figure.
This figure is ordered in the same way as the previous figure, but based on frequencies. As we see in this figure, most people, irrespective of style, have to use time to find something that fits their style, body shape and size. Around 50 percent agree with this assertion, while 30–40 percent say it is easy to find something that fits. Around 10 percent have difficulties finding clothes that fit their body size and shape and have to use time to find something that fits. Approximately 50 percent of the ones that say that they have fashionable, trendy, expensive and hip-hop styles consider it easy to find clothes. This tendency may be age-related. 58 percent of the ones under 24 who have a trendy style, and 61 percent with a fashionable style say that it is easy to find clothes. One possible explanation is that trendy clothes appeal to the younger ones who might fit into the trendy clothes better than the older ones. Earlier studies have for instance shown that grown-up women feel that fashion and trends are primarily for adolescents (Klepp & Storm-Mathisen 2005). Almost 60 percent of the youngest group who describe their style as expensive say that they find it easy to find clothes that fit, compared to around 45 percent of the other age groups. We see a similar trend when it comes to the hip-hop style, as this is most popular among the youngest ones in the sample. The hip-hop style is a leading clothing style today, mainly used by young boys and is characterized by baggy jeans and hooded sweatshirts inspired by American rapper sub-culture (Kirkemo 2007, Morgado 2007). These clothes are widely available and not as tight fitting as other clothes, and

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12 The transvestite category was removed from this figure, as there were only two respondents (and not appropriate to calculate percentage of their habits). However, both of them checked off that they "had to use time to find something that fits".
may be the reason why people consider it easy to do find clothes that fit their style.

3.2.2 Does everyone find clothes that fit their style?

We have now seen a summary of informant’s styles, while we do not know if everyone finds clothes that fit his or her style. This chapter discusses this issue, and we start by looking at the seemingly gender-related differences.

The figure above underlines that men and women have different opinions when it comes to the possibility of finding clothes that fit their body sizes and body shapes, and also their desired styles. Over 50 percent of the men think it is very or quite easy to find clothes, while 37 percent of the women think the same. The situation is the opposite when it comes to the ones who have to use time to find something that fits: 38 percent of the men and 50 percent of the women agree with this statement. Around 10 percent of both genders find it hard to find clothes with their style as well as their size they prefer. A study that focused on age-related differences between young girls’ and grown-up women’s clothing practices found large differences in how they expressed themselves through clothes, especially when it comes to trendy clothes (Klepp & Storm-Mathisen 2005). For this reason the next figure presents different age-groups and their experiences with finding clothes that fit their desired style, as well as their body shape and size.
Figure 3–10 supports the assumption that younger people find it easier than older ones to get clothes that fit their clothing styles, body shape and size, as over 52 percent respond that this is very or quite easy. The satisfaction rate falls with increasing age; one of three informants over 40 years says that it is easy, while the discontentment rate goes up with increasing age. Around 65 percent of the informants over 40 say that they have to use time to find something that fits or that the style they like is almost never sold in their size. This corresponds with earlier studies; most grown-up women experience bodily changes and interpret these as negative, as it is more complicated to dress well and in accordance with the prevailing beauty ideals (Klepp & Storm-Mathisen 2005). A quick comparison between body mass indices and age groups demonstrate that older people have a higher body mass index than younger people. Over 50 percent of the informants over 60 are classified as overweight or obese, compared to 24 percent for the youngest group. Hence we assume a tendency that older and larger people think that it is harder to find clothes that fit their style, body shape and size.
Large? Clothing sizes and size labeling

Figure 3–11. Ease of finding clothes that fit desired style, as well as body shape and size by BMI and age. Female.
Percent. N = 2070 (90% of the total 2300 females)

Figure 3–11 shows there is a strong relation between body mass index and ease of finding clothes that fit both the desired style and body shape and size. This has a larger significance than age, as is shown in the figure. Females with a BMI under 25 have approximately the same experiences with finding clothes in the right style that fit their body shape and size as men; around 50 percent of the group find this very or quite easy. Still, two in five women in this category have to use time to find something that fits.

Generally, females with a BMI under 25 are more satisfied than females with a BMI over 25. Fewer have problems with finding clothes that fit. This figure calls attention to the fact that females with BMI over 25 find it very hard to find clothes that fit. BMI matters more than age when it comes to finding clothes in the preferred style. Three out of five women with a BMI over 25, regardless of age, have to use time to get something that fits, and around one in four women cannot find clothes with the style they wish to have.

An analysis of the relation between clothing sizes (in letters) and contentment of finding clothes that fit style, body shape and size supports this finding: the larger the size people use, the fewer think it is easy to find clothes. Over 25 percent of the ones using size XL or above say that the style of clothing they like is almost never sold in their size. The ones who use size M or L are the most content.
As can be seen in figure 3–12, males’ experiences are similar to those of females: men with a BMI under 25 consider it easier to find clothes that are in accordance with their own style, body shape and size. Between 60 and 70 percent of the men with a BMI under 25 have positive experiences of finding clothes that fit their style and size, compared to around 40 percent of the men with a BMI over 25. They have more mixed experiences and find it difficult to get something that fits them or cannot find the style of clothing they like at all. These results are supported by earlier studies (Brattland 1997, Chapman 1999, Hauge 2007, Tunaley, Walsh & Nicolson 1999).

Body mass index is used as a criterion for medical intervention for obese people, and has been criticized for being inaccurate as it does not differentiate between fat and muscles (Jensen 2007). This criticism has also been a question of how the data is collected, as some surveys have uncovered unusually low occurrence of obesity, and the representativeness of the data is therefore tenuous (Ulset et al 2007). With this in mind, we have in addition to body mass index also worked out another way of estimating body types, weight and height. We asked the informants to describe their bodies’ height and weight, and they could choose from nine alternatives (e.g. normal height, thinner than average). As we have seen, there is a relation between the sample’s body mass index and how the informants experience finding clothes that fit their own style, body shape and size. Hence, we did another analysis of this relationship, based on the description of body weight instead of body mass index:
Large? Clothing sizes and size labeling

Figure 3–13. Ease of finding clothes that fit desired style, as well as body shape and size by gender and respondent’s own description of body weight.

Percent. N = 2737

The figure emphasizes that there is a correlation between “normal” weight and ease of finding clothes according to style, body shape and size. 85 percent of the females who describe themselves as larger/rounder than average do not consider it is easy to find clothes. Compared to the two other groups (normal/thinner than average), this is a huge difference. We also see a similar tendency in the male selection, even though the percentage is lower. 62 percent of the men who consider themselves to be larger/rounder than average find it hard to get clothes. One unusual example of this is found in the interview material: a man could not find clothes that fitted his body because he had an “athletic fit”: wide shoulders and small waist. In Europe, he normally only found clothes that fitted men with the opposite body type: Narrow shoulders and large waist. He solved this by shopping clothes in the US where the assortment of clothes in both “big and tall” sizes were available. He also hired a tailor to sew his clothes when he needed more formal outfits.

As we see, the males with normal weight and the women that are thinner than average are the groups that find it simpler to buy clothes. Almost 70 percent of the men agree that it is easy to find clothes that fit their style, body shape and size and almost 60 percent of the women do the same. In order to know which parts of the body that makes it difficult for consumers to find clothes that fit their personal style, body shape and size, we asked the respondents to describe their body parts (arms, legs, chest, waist, hip girth, shoulders and the balance between the upper and lower body). This was analyzed in orders to look for specific bodily difficulties that make it hard for consumers to find suiting clothes. The results demonstrate that body parts experienced as being otherwise than those of the “normal” and “ideal” make it hard to find clothes. 81 percent of the men who described their arms and back (71%) as short, their shoulders as
narrow (68%) their bottom (67%) and chest (65%) large consider it hard to find clothes that fit their style. Women with a large belly/waist (85%), large bust (80%), short arms (79%), large bottom (78%) and wide shoulders (75%) also say that it is not easy to find clothes that fit their style, as well as their body shape and size.

We still see a strong tendency that large people think it is more complicated to find clothes when it comes to garments that fit their personal style, body shape and size. There are also significantly more women who have this experience than men.

3.2.3 Who tries on clothes before buying them?

As seen in the previous chapter, there are huge differences between men and women’s styles and style habits. Compared to men, women generally express that it is hard to find clothes that fit their style, body shape and size. So how do women and men respectively act when buying clothes? Do they also have different habits when trying clothes on? These habits form the informants’ knowledge of sizing systems and size labeling, which is discussed in chapter 3.3.

As is apparent from this and the next figure a lot more women try on clothes before buying them than men. Women always or usually try on most clothes before buying them, with socks as the obvious exception. Over half of the women do not try on underwear before buying it.13 These are the most apparent garments that women do not try on. Women have a wider range of clothes to choose from, and one might think that

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13 Signs that prohibit to try on underwear are common in fitting rooms.
this has an impact on women’s habits when it comes to what garments they try on. It is worth noting that the informants can comprehend the ten garment categories differently; a jacket can have different connotations for young and old, men and women (e.g. an outdoor jacket, a blazer, a cardigan and so on). This may influence to what extent men and women state that they try on different clothes.

Almost all women in the sample try on jackets and trousers, and over 90 percent try on skirts. These are all clothes that generally are supposed to fit the body. Four in five women also try on bras, suits, blouses or sweaters and shirts before buying them. The gender differences are huge and may be caused by the differences in amount of available clothes for men and women and how fitting the clothes are supposed to be. Women normally wear tighter clothes than men do, and men also have fewer garments to choose from and the garment repertoire reduces the range of possible outfits. This may also imply that young and old men have different habits when it comes to trying on clothes as they normally wear different kinds of clothes.

![Figure 3–15. Clothes that men try on before buying them](image)

Around five different garments stand out as the ones that men always or usually try on. Over 50 percent of the men always or usually try around five different garments before buying them: Over 90 percent of the men always or usually try on jackets and trousers before buying them, while over half of the male sample always or usually try on sweaters, suits and shirts. Around 20 percent state that they do not buy suits. Trousers were the garment that caused most irritation among the male informants we

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14 The skirt and bra categories were removed from this figure, as almost no men stated that they buy those kinds of clothes.
interviewed. For instance a man\textsuperscript{15} got frustrated over the inconsistency between sizes within the same brand and store: “If I try on a pair of trousers in size 38 and they fit pretty well, and then try on another model of trousers in size 38 in the same store, it may have a totally different fit and be tighter around the legs and thighs (…) Even though it’s the same brand and store”. He also says that “I always have to try on five different pairs of trousers, even though I’m only looking for one pair”.

As we see, t-shirts are usually not tried on before they are bought. Only around 25 percent try on t-shirts. Most of the men do not try on underwear and socks before buying them, presumably because these garments cannot be tried on as they often come wrapped in plastic in the stores.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure3_16.png}
\caption{Garments that are always or usually tried on before buying them. Females under and over 40 years. Percent. N = 2299.}
\end{figure}

In figure 3–16 and 3–17 we separated the males and females who answered that they always or usually try the different garments in order to see if there were any age-related practices when it comes to trying on clothes. When we compare this and the next figure for men, the age-related differences are smaller in the female group. Generally, most females try on the majority of clothes, with underwear and socks as the exception. A small difference between the genders can be found when looking at t-shirts, shirts, blouses/sweaters and dresses/suits.

\textsuperscript{15} Norwegian, male, 1960, size XL+ - from the interview material
As it is shown in the figure we see some huge differences in practices: young men generally try on more garments than older men do. This is the case with t-shirts, shirts, sweaters and underwear in particular. Fewer than 10 percent of the males over 40 try on t-shirts, compared to nearly 40 percent of the males under 40, and the differences are even larger when we look at shirts: 70 percent of the males under 40 try on shirts, but only around 25 percent of the males over 40. The age differences may be caused by a shift in men’s clothing habits. More of the younger men may tend to buy body-fitting clothes than the older ones, and looks may be more important to young men than to the older ones. This can imply a possible generational shift in the way men dress and will be discussed in the last chapter.

These figures underline the point from figures 3–14 and 3–16 that women generally try on more garments than men do.

3.2.4 Shopping practices – who shop from mail order or online?

Norwegian retail sales rates\(^\text{17}\) show that shopping on the internet or from mail order have increased over the last years. This chapter will tell more about those who shop clothes online or through mail order. Who are they and what garments do they shop? As previously indicated, men and women have different habits when it comes to how much they spend on clothes, how easy they find clothes in their styles that also fit their bodies and sizes and what garments they usually try on before buying them. This

\(^{16}\) In this figure, the skirt and bra categories were removed, as most male respondents answered that they did not buy those clothes.

\(^{17}\) Index of retail sales, June 2008, Statistics Norway. Downloaded 18.8.08 from http://www.ssb.no/vis/cmmnr/08/03/20/doi/main.html
may indicate that the habits difference according to gender also when we look at the online or mail order shoppers.

Figure 3–18. Clothes that women buy from mail order or internet shops.
Percent. N = 2300

Around one in three females have bought t-shirts or blouses/sweaters from mail order or internet shops, while one in four have bought shirts. About two in five have bought skirts, trousers, underwear or socks. But there are also women who do not buy anything from mail order or online shops. Roughly four in five women seldom or never purchase anything from these kinds of shops.

Figure 3–19. Clothes that men buy from mail order or internet shops.
Percent. N = 534

Men generally buy fewer clothes from mail order or internet shops than women do. T-shirts are the most popular garments; almost one in four
men have bought t-shirts from this kind of shops. T-shirts are one of the garments that quite few men try on before buying them, as we also saw in chapter 3.2.3. This suggests that t-shirts are easier to buy compared to other garments; they do not have to be that tight fitting and is considered an article of consumption. Almost one in five men buy shirts and trousers from mail order or internet shops. One of the men we interviewed said that he probably would shop more often online if the sizes were unitary and predictable.

Chapter 3.2.2 showed that higher BMI made it more difficult to find clothes that were in accordance with preferred styles, body shapes and sizes. This may imply that larger people use other ways of shopping in order to find something that fits. An example of this found in the interviews, is the large, broad-shouldered man aged 38, previously mentioned. He either employed a tailor that adapted shirts to his body shape, or bought clothes in the USA where the assortments are wider in order to find clothes that fit his body. He did not consider it an option to shop online yet, as he thought the sizing systems were hard to interpret online as well as in regular clothing stores.

![Figure 3–20. Clothes that women often or sometimes buy from mail order or internet shops by clothing size. Percent. N = 2206](image)

This figure shows that bigger women to a larger extent buy clothes from mail order or internet shops compared to smaller women. We see that a greater part of the women that use size large and above large buy clothes from mail order or internet shops, with skirts as the exception. Still, the differences are not very big between the women who use size medium or under and the women who use size large and above large.

18 Norwegian male, 1960, XXL.
Figure 3–21 shows that there are only minor differences in males’ order habits, with jackets and trousers as the exception. These categories demonstrate that more men with sizes medium or under medium say that they have bought these clothes from mail order or internet shops than the men that use large or above. Hence we see no obvious tendencies that larger men have to find other ways of finding clothes compared to the smaller men. Another aspect of buying clothes from mail order or internet shops is the geographical distance to (other) clothing stores.

The figure supports the presumption that people who have a longer distance to the nearest clothing shop to a larger degree buy clothes on the
internet or from mail order. Norwegian Statistics\textsuperscript{19} from the island \textit{Svalbard} showed that people living relatively isolated on the island buy much more clothes from mail order. We therefore see a tendency that people who have longer distances to the nearest clothing shops also buy more clothes from mail order or internet shops.

\begin{center}
\begin{figure}
\includegraphics[width=\textwidth]{figure3-23.png}
\caption{Clothes bought for other people than oneself by gender. \textit{Percent. N = 2834}}
\end{figure}
\end{center}

Women buy clothes more often for other people than men do. One in three women buy clothes for their children or their partner, while 37 percent of the men say they never buy clothes for others. It is hence likely that there is a relationship between the ones that buy clothes for others and their family status. This is the topic of the next figure:

This figure shows that people with their own family buy clothes for others to a larger extent than those without children. Almost nine in ten women with families buy clothes for their children, compared to one in three men. Almost two in five men do not buy clothes for anyone but themselves, compared to around three percent of the women with families and ten percent of those without families. We see a tendency that more women buy clothes for others than men do, irrespectively of family status.

3.2.5 Summary: Poorest clothing selection for large women

This chapter discussed style and style habits, as well as how easy it is to find clothes that fit people’s desired styles according to their body shape and size. Women describe their style as comfortable (63%), followed by practical (49%), simple (46%), classical (42%) and relaxed (41%). Also most men describe their style as comfortable (55%). More men than women characterize their style as relaxed (53%); and then practical (46%), simple (33%) and neutral (30%). Both men and women with a BMI over 25 (overweight or obese) describe their style as comfortable or practical compared to those with a BMI under 25 (normal/underweight). More people with a BMI under 25 (normal/underweight) than those with a BMI over 25, describe their style as sporty, fashionable or trendy.

Females in general have a harder time finding clothes that fit their style, body shape and size. Over 60 percent have to use time to find something that fits or cannot get clothes with their preferred style that are sold in their size. When looking at age-related experiences, the older women find it more difficult to find clothes that fit their style than the
young girls. Around half the men in all age categories find it easy to find clothes to suit their style. We see a similar tendency when looking at body mass index (BMI) and age in relation to the experiences people have with finding clothes that fit their style, body shape and size. Both men and women with a BMI over 25 find it harder and have to use time to find something that fits. This effect is, as we have seen, stronger than age as both men and women over and under 40 years with a BMI over 25 express a similar experience with finding clothes that fit their style. When comparing the results from Finland, Norway and Sweden, the results are different when it comes to their experiences with finding clothes that fit their style, body shapes and sizes. Over 50 percent of the Finnish, over 40 percent of the Norwegian and around 35 percent of the Swedish people say they have to use time to find something that fits. 55 percent of the Swedes find it very or quite easy to find clothes that fit. The results were also compared with BMI values over or under 25. Generally, people with a BMI below 25 in all three countries find it easy to find clothes that fit their style. The Finnish people are still ambivalent: 45 percent with a BMI under 25 say that they have to use time to find something that fits. Compared to Sweden and Norway fewer Finnish people with a low BMI are content when it comes to finding clothes that fit their style.

Another aspect of shopping habits is which garments people try on before buying them. Most women try on t-shirts, shirts, blouses or sweaters, skirts, dresses and trousers, while men have different practices when it comes to what garments they try on before buying them. Less than one third of the men try on t-shirts, more than 50 percent try shirts, and around 70 percent try on sweaters or suits, if they consider buying them. Over 90 percent try on jackets and trousers, while they seldom try on underwear or socks. The trying-on habits were also compared to age under or over 40; and we see no age-related differences in women’s trying-on habits. We did, however, find differences in men’s trying-on habits related to age: generally, more men under 40 try on clothes than those over 40. This is especially the case with t-shirts, shirts and sweaters. Still, more women than men try on clothes, irrespective of age.

The mail-order habits show a similar tendency as the informants’ trying-on habits. More women often or sometimes buy t-shirts, shirts, sweaters, trousers and underwear than men. About one fourth of the women often or sometimes buy clothes from mail order or on the internet, and approximately one in five men do the same. The garments that the most men buy are t-shirts, trousers and shirts. We also see a small tendency that more women who use size large and above, and also men that use size medium and smaller buy clothes from mail order or on the internet. This is also the case with those that have more than 4 kilometers to the nearest clothing shop.

The last topic of this chapter is whether one buys clothes for other people than oneself. As we saw, a larger part of the women than of the
men buy clothes for their children and partner, and also for other family members and relatives, as well as for other people’s children. Nearly two in five men never buy clothes for others. Men who live in a family with children do so to a greater extent buy clothes for their children. Still, 34 percent of the men who live like this never buy for anyone else. Almost nine in ten women who live in a family buy clothes for their children.

3.3 Size labeling systems and standardization

In this chapter we look into the size labeling systems, both the existing ones and the new system that the clothing size standardization group is preparing. We asked for the samples’ experiences of the existing systems, if they think that the size codes work, and if there are systematic differences between different types of stores or brands. In the questionnaire we gave a short description of the new labeling system, and asked the respondents’ opinion of it.

3.3.1 Variation within sizes

As figure 3–25 shows, over 98% of respondents say that they find variations in clothing sizes, either very big differences or at least some variations. Less than one percent of respondents say that they can always use the same size. These figures can be seen as very significant criticism of how sizing labeling works at the moment.
Most women find very big differences in sizes, whereas a majority of men think that they find just some variations. More men also more often answer that they don’t know. When dividing the respondents into different age groups, we can see that age seems to have a small effect on what the female respondents think of size differences (figure 3–26). The higher the age, the more they feel that there are differences within sizes. The same applies to men, but only up to 59 years of age.
As figure 3–27 shows, respondents’ BMI has more significant effect on their opinion on sizing systems than age. Normal weight respondents in both genders find the least variation in sizes, followed by underweight respondents. The overweight and the obese find the most variations. This corresponds well with the earlier findings from the size measurements in stores. When looking at the few respondents saying that they can always use the same size, we find the same tendency as pointed out earlier: the labeling systems function best for men who have normal weight and women who have normal weight or are underweight.

![Figure 3–28: The opinion about the variation in clothing sizes between different brands or stores by gender and country.](image)

When comparing the respondents from three countries (figure 3–28), we see that the Swedish respondents more often find only some variation, compared to Norwegians that more often find big variations. Finns are between these two extremes. However, the main tendencies are the same; women in all three countries find more variations in clothing sizes than men.

We asked the respondents which size they usually use, both in the letter sizing system and in number sizes. One of the options in this question was to answer that it is not possible to give any specific size, because it varies too much. Only three percent selected this option, which means that even though they find variations within sizes, they can still select a size they think they often can use. Respondents had also the opportunity to comment their answer, and this was a very popular option. Every third commented their answer to specify the size, for example that sizes for upper and lower body are different, or that they can use everything from S to L, often depending on where they buy the clothes. “My wardrobe in-
cludes clothes from S to XL, and they all fit. "Several comments also showed that respondents were really frustrated with the variations within sizes. "Everything between S-L and 38–42. It’s very confusing and I have to bring several sizes into the fitting room."  

We wanted to know whether the respondents feel that the sizes vary systematically based on the store type or brand. Therefore we asked if respondents think that clothes would be smaller or larger than the size code indicates in different stores. Options were to choose between given shop categories such as stores for young people, South-European chains or mail-order companies. The results are presented at figure 3–29.

Figure 3–29: The opinion about the average sizes at different types of shops compared to own size  
Percent. N=2834

In general, we can see that there are much more “smaller than average” than “larger than average” answers (figure 3–29). The majority of respondents feel that clothes are smaller than average in stores aimed at young customers, and in South-European chains. The percentage of small clothes in high-fashion stores is high, too, but first of all the number of “don’t know” answers is very high, indicating that most respondents do not usually buy clothes in these types of stores. The majority of respondents think that sizes are closest to average size in large chains, followed by stores for adults and mail-order companies. A small number of respondents answered that some store categories have clothing sizes larger than the size code indicates. The category with the highest number of respondents who answered “larger than average” are the stores aimed at adults.

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20 Finnish female, 32, size M  
21 Norwegian female, 25, size L
When comparing men and women, we see that men more often answer “don’t know” in almost all categories. If these answers are left out, as in figure 3–30, we can see that men more often answer that the sizes are average, but otherwise there are not very big differences between the genders in their opinions on whether the clothes are smaller or larger in different store types.

A mean value of the respondents’ answers for all store categories has been calculated in order to see where the emphasis lies. “Don’t know” answers are left out from the calculation. Figure 3–31 shows these results.
There is a clear tendency that respondents with higher BMI more often think that clothes are smaller than average, and respondents with lower BMI were more likely to think that the clothes are larger than average in more store categories. As expected, there are most “clothes sizes are average” answers in the normal weight category.

16% of the respondents wrote comments for this question. Many criticized the available answer categories, as they regard that sizes vary within the listed store categories as well. For example, they think that mail-order companies are all different, as well as the large chains, or southern chains. Typical comments were:

“The categories don't quite match: Zara's clothes are huge, Mango's are average, Benetton's are smaller. H&M is smaller than KappAhl, where I never find anything.” 22

“Sizes in H&M are at least one size smaller than in KappAhl!” 23

“Bik Bok has tiny sizes, JC has normal. They can’t be compared!” 24

Very many respondents also comment that the sizes vary even within the chain/store:

“Sizes within the chains vary a lot, for example I just tried on two shirts in Vero Moda, one in size L and the other in XL. The one in L was bit too big, whereas the XL was too small. The same applies to H&M: the sizes vary a lot and I have clothes from M to XL from there.” 25

“Even clothes in the same store have variation up to two sizes!” 26

Several comments are very personal. They were concerning in which stores the respondents would usually prefer to shop in order to find clothes either in suitable size, or with the fit and style they want. It is often mentioned that it is not only the size labeling that is the problem, but also to find clothes that fit different body types and heights, or the fact that the size is not available at all (usually large sizes, but some small as well). There is a lot of frustration over the sizes and sizing differences:

“Sizes are arbitrary, you can’t trust them.” 27

“In Zara a size XL jacket was too small, in Lindex I have bought even size S...” 28

“The size markings are changing. I trust my own eyes and gut feeling.” 29

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22 Finnish female, 35, size XXS
23 Finnish female, 24, size S
24 Norwegian female, 17, size S/M
25 Finnish female, 28, size L
26 Finnish female, 28, size S
27 Finnish female, 62, size XL
28 Finnish female, 31, size M
“I have never found a fitting size in a youth store, South-European chain or a fashion store. They are all too small.” 30

“My size is exactly the smallest size in the chain stores’ "fat-department”, which gives, to say the least, a very limited range. I can just forget about the brand and youth stores. Unfortunately, it seems that all have forgotten that women have busts. I never fit in the clothes and I’m so tired.” 31

3.3.2 Satisfaction for size labeling systems

In this chapter we examine the sample’s satisfaction with different size labeling systems. As figure 3–32 indicates, the majority of respondents say that they are satisfied with most sizing systems, with the exception of systems based on children’s age, or other (foreign) systems such as the labeling used in the United Kingdom.

However, the respondents seem less satisfied when we read the comments. 18% of the respondents specified their answers, and one of the most common comments is that the respondents do not care which code system is used, as long as the clothing sizes are consistent.

“I don’t mind which system it is, as long as there would be the same sizes everywhere.” 32

"The size labeling is a jungle; you can’t buy anything without trying it on first.” 33

“The problem is that the same size marking means in practice different sized clothes in different stores.” 34

“None of the systems works well enough that you could buy clothes without trying them on.” 35

Another point of discontent is the confusion between the different systems:

“It is often difficult to interpret or distinguish the different codes from each other.” 36

“When the size is given in letter code, it should also be mentioned whether it is for men, women or unisex.” 37

29 Finnish female, 67, size M
30 Swedish female, 62, size XXL
31 Swedish female, 32, size varies
32 Finnish female, 44, size M
33 Finnish female, 66, size XL
34 Finnish female, 41, size L
35 Finnish female, 43, size S
36 Finnish female, 29, size M
37 Finnish male, 65, size L
“It is very confusing when one garment is labeled with several different systems.”

Yet another point of dissatisfaction is that the size labeling systems are not satisfactory as they are now, because the different body types and lengths are often not given in the label. There are numerous comments saying that the length of trousers should be included more often in the size code.

“For trousers there should more often be available different lengths of the models - short, normal, long.”

“The size labeling does not take different body shapes sufficiently into account.”

“I wish there was more variation in the width of women’s clothing, like there is for men.”

In order to simplify the further analysis, the two different levels of satisfaction or dissatisfaction have been combined, as well as the “don’t know” and “don’t buy” categories. These results are given in figure 3–33 for adults’ clothing and figure 3–35 for children’s clothing.

In general, women are more satisfied with the number size labeling system than the letter system, whereas men are more satisfied with letter sizes than number sizes. Women often commented that they are happy

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38 Finnish female, 33, size M
39 Finnish female, 42, size M
40 Finnish female, 42, size M
41 Swedish female, 57, size XL
with women’s number sizes, but that double sizes do not work, as the size in between would have fitted better.

“So-called double-sizes such as 36/38 and 40/42 cause problems, because sometimes it is not possible to find suitable size, as the smaller size can be too tight from the waist, but the next size is a huge tent!”[42]

“36–38–40 size labeling system would have worked, if they were not put together. For example, 38–40 and 40–42 there seems to be always missing a size.”[43]

Some also wish for even smaller gaps between sizes:

“It would be good if there were more in-between sizes available, for example in women’s number labeling size 35.”[44]

Only about 15% of the men report their opinion on women’s size labeling systems, as opposed to 45% of women who have an opinion of men’s size labeling systems. This implies that they are more familiar with the labeling systems for the opposite sex than the men are.

Both genders are more satisfied with letter size labeling than jeans inch size labeling. Based on the comments, it is mostly because they are not as used to using inches as a measure, and could not remember the size code. Some also find the different width and length figures confusing. However, many respondents comment that they are more satisfied with jeans size labeling, because then it is more often possible to find trousers with correct length. Many would just have preferred to have the same measures in centimeters instead of inches.

A majority of respondents are dissatisfied with foreign labeling systems. Comments revealed that they are confusing to many and often even unknown. A few more women are familiar with them than men, and younger respondents were more satisfied with them than the older ones.

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[42] Finnish female, 28, size M
[43] Finnish female, 29, size XL
[44] Finnish female, 16, size S
In figure 3–34 the answers for the four most common size labeling systems are sorted by respondents’ age. We can see that it has a significant influence on the opinions. For letter labeling, the respondents get less and less satisfied with increasing age (both genders included). For women’s size labeling, we see a similar tendency. For men’s size labeling, it is exactly the opposite and male respondents are more content with the system with increase in age. For jeans inch labeling, the number of “don’t know” answers is higher, especially in the oldest age group. 25– to 39–year-old respondents are most satisfied with the system, followed by the
youngest age group. The majority of respondents in the two groups with the oldest respondents are dissatisfied with jeans size labeling system.

Figure 3–35: Satisfaction with existing size labeling systems for children’s clothing by gender. Percent. N=2834.

For children the size labeling system based on height is a lot more popular than the one based on age (figure 3–35). The majority of respondents that are familiar with the age-based labeling system for children find it dissatisfying. When men’s and women’s answers were counted, it was found that a higher percentage of women have an opinion concerning the children’s labeling systems. This indicates that they know them better. There are also lots of comments concerning sizes in children’s clothing.

“It is funny that age-based sizes for children are used, because same-aged children can be of very different sizes.”

“The age in years does not say much in children’s clothing. Even children from the same family can be built completely different. Our first grader is taller than the third grader. The labeling system based on height is much better.”

“In children’s clothing even the height-based sizes vary a lot. In addition it would be good to have wider and slimmer fits for children as well. Sizes based on age are not reliable, because children develop at a different pace.”

“In children’s clothing the unambiguous centimeter sizes vary, for example the same garment can have size code F 102 cm, D 98 cm. Can’t they use the same tape measure?”

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45 Finnish female, 36, size L
46 Finnish female, 29, size M
47 Finnish female, 32, size M
48 Finnish female, 35, size S
There are also a few positive comments concerning the age-based size labeling system:

“Age-based sizes are helpful for random buyers to get a better picture of the size that is needed.”

We wanted to see if the respondents’ own reported size affects the satisfaction with the letter size labeling system. The results are presented in figure 3–36. It is obvious that there is a correlation between them, as the respondents using sizes S and M are most content with the system, whereas the ones using larger sizes or extra small are less satisfied. Surprisingly, the majority of the ones that could not give their own size because it varies too much are still satisfied with the labeling system.

### 3.3.3 New size labeling system

We also asked the respondents if they think it would be practical to have a new labeling system, with the same sizes in all European countries. The majority of respondents (83%) agree that it would be very helpful, and less than 10% are content with the existing ones. As figure 3–37 indicates, there are no significant differences between men and women, but a few more men are happy with the existing systems than women. Age seems to play a significant role in whether the female respondents are happy with the existing systems. The youngest age group is most satisfied

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49 Finnish female, 43, size L
with the existing systems and the oldest group the least. The tendency is similar when it comes to men’s answers, but not as clear.

Figure 3–37: Opinions about a new labeling system with the same sizes in all European countries by gender and age.
Percent. N=2833

The impact of respondents’ BMI seems to be a more significant factor for their opinion on labeling systems, than gender or age. Figure 3–38 supports the earlier finding that the respondents using bigger sizes are less satisfied with the existing sizing systems, and are hoping for a better functioning system.

Figure 3–38: Opinions about a new labeling system with the same sizes in all European countries by BMI.
Percent N=2597
Figure 3–39: Opinions about a new labeling system with the same sizes in all European countries by country. Percent. N=2786

As figure 3–39 reveals, there are not very big differences between the respondents from the three Nordic countries. A majority of respondents from all three countries think that it would be practical to have the same labeling systems everywhere. The Finns are most eager to have a new labeling system, whereas Swedes and Norwegians are slightly more satisfied with the existing systems.

A short description of the new proposed labeling system was given in the questionnaire (see appendix 3). The explanation included an example of the size pictogram and its corresponding size code. We asked the respondents if they think that the new labeling system is informative and easy to understand.

Figure 3–40: Opinions about the new size labeling system by gender. Percent. N=2834
As figure 3–40 indicates, the majority of both genders are positive to the new system, but almost 50% had trouble understanding it. 13% of the respondents are negative towards it, as they think it is neither informative nor easy to understand. There is a slight difference between the genders. Women more often think that it is informative but that it is difficult to understand the coding, whereas men score slightly more in the other categories, either thinking that it is both informative and easy to understand, or neither.

When comparing the different age groups of respondents (figure 3–41), we see that the age group over 60 is the most positive to the proposal, followed by 40–59-year-olds. This came as a small surprise, since it is often thought that older consumers can have more trouble learning new things. However, this correlates well with the earlier finding that these consumers are the least satisfied with the existing labeling systems and wish to get more information on the size label. Another explanation might be that some of the consumers over 60 could find it physically more difficult to try on clothes in stores.

![Figure 3–41: Opinions about the new size labeling system by age. Percent. N=2834](image-url)
**Figure 3–42: Opinions about the new size labeling system by level of education.**
Percent. N=2723

In figure 3–42 the answers are sorted by three basic education levels. Respondents with upper secondary education or higher education seem to be more positive towards the proposed new size labeling system. They feel that it is both informative and easy to understand more often than the respondents with primary and lower secondary school education only.

**Figure 3–43: Opinions about the new size labeling system by respondents’ reported size.**
Percent. N=2831

When comparing the answers from respondents with different sizes (figure 3–43), we can see that there is a general tendency that the bigger the reported size, the more positive to the proposal the respondents are, as
they more often feel that it is both informative and easy to understand. This tendency is not completely linear in the negative category, as respondents that reported size M or XL and larger are a bit more negative towards the proposal than the other sizes.

Figure 3–44: Opinions about the new size labeling system by country. Percent. N=2786

The majority of respondents from all three countries think that the new size labeling proposal seems informative but they have some trouble understanding it (figure 3–44). About every third respondent from each country is very positive to the proposal and thinks that it is both informative and easy. However, some differences between countries can be seen, as almost every fifth Norwegian respondent is negative towards the proposal and consider it neither informative nor easy to understand, as compared to only about every tenth Finn.

28% of respondents wrote comments regarding the new standard size labeling system proposal. It is obvious that many have not understood the explanation given in the questionnaire. This is partly due to the fact that the explanation had to be short so that the respondents would not need to spend too long time reading it, and therefore not all details could be included. Several respondents do not understand that size measures given in the code were just a size example. These respondents are very negative to the proposal, because they assume all clothes would be fitted for person in the given length (166–170 cm) or waist-hip ratio. In addition to that misunderstanding, there are a lot of follow-up questions concerning the code and the consequences to sizes or fit.

A very common opinion expressed in the comments is that the given main girth measure in centimeters is easy to understand, but that the letter codes are less popular. Either they are not that well understood, would be
hard to remember, or at least there should be tables easily available for checking it in the store.

“088 is easy to understand. I don’t understand the letter codes that well.”

Respondents often suggest different types of labeling that they would prefer instead of using letter codes. Two main suggestions are either to give all the measures in centimeters, or give different options in writing for length and width measures.

“168/88/92 would be a much more clear way, as there would be no need for coding.”

“I would prefer "size 32 short & slim", and just make sure each country understands the size charts the same way.”

Many respondents comment that they do not like the size code that much, but in their opinion the picture with size measures is a good idea. Several also comment that the text and the picture itself should be large enough, as there are so many small numbers and not everybody brings reading glasses to the clothing store.

“The picture says everything and is very illustrative, but it is difficult to remember codes G and F, if G was 168 or 186 etc. You could probably remember what the number in the middle means.”

“You will always need to have glasses unless the size is written much bigger.”

A number of consumers are worried that the size code does not include all necessary information, such as sleeve length, trouser length, back length, hip-waist ratio, thigh width, collar size, shoulder width and so on. Several comment that height alone is not enough to get the trouser length correct, because people are built differently.

“It feels a bit strange to buy trousers based on the body height, because the height relation between upper and lower body varies very much between individuals (and even how you want to wear the garment).”

One of the most common comments is that the system seems either a bit complicated or hard to remember, but that most likely people would get used to it after a while. Quite a few respondents also think that they themselves do not have any trouble understanding or even remembering the code, but that it could be difficult for others.

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50 Norwegian female, 34, size M
51 Finnish male, 21, size M
52 Finnish female, 35, size XXS
53 Finnish female, 31, size XXL
54 Finnish female, 55, size M
55 Swedish female, 24, size M
“Probably difficult for many people, such as the elderly.”

“Women will probably remember their size measures, but I doubt men will.”

“We got used to Euros, so why not this system, too. It would be important to specify if the given measure is of the garment or of the potential user’s body dimension. Then it would be easier to select the fit one prefers, loose or close fit.”

“It would require a lot of work to teach people the new system.”

A big part of the sample is more interested in getting more sizes or different fits for different body types available in stores, than in getting a new size code. In their opinion, a new code alone is not helpful. Some are more optimistic and pleased that finally different fits of garments will be made available. The opposite of this are the consumers that suppose it would be more difficult to find clothes on store shelves when there will be a jungle of different sizes available.

“There must be more sizes available!!”

“It is the combinations that are missing; such as wider bust-normal sleeve length, or wide hip-small waist.”

“It looks good, but it won’t help to get clothes for adults’ size class 150 cm.”

“It is informative but there are too many figures to think about when looking for the product. The stores don’t organize the products well enough on the shelves etc...”

“The code is informative, but I wonder if it will be difficult to search for the right size in a pile of clothes, when there are so many variables.”

Some respondents state that they already have experiences of similar labeling systems, and that, in their opinion, they work well (these systems vary, but are often based on military clothing).

“We had it in the military, and then the clothing always fitted well.”

Some respondents are positive towards the proposal, but only if it would fulfill some conditions. Such conditions are for example that all agree to use it, all (European) countries would have the same labeling, there

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56 Finnish female, 33, size 4XL
57 Finnish female, 43, size L
58 Finnish female, 25, size M
59 Finnish female, 22, size M
60 Swedish female, 16, size M
61 Swedish female, 35, size varies
62 Finnish female, 56, size M
63 Finnish female, 57, size M
64 Finnish female, 21, size XS
65 Norwegian male, 29, size M
would be different fits available, size code tables would be made available in stores, or that they would get help to measure themselves the first time, and so on. Several suggest that stores should offer a code card where you could write your and your family members’ measures.

There are also a lot of remarks concerning buying clothes for others, that it would be either more or less difficult. The ones that assume it would become easier were thinking of having a code card with family members’ size measures, and that they could buy clothes based on that, and the clothes would fit even without trying them on in the store. Negative respondents assume that it would be more difficult to remember the codes. According to them, this would be especially the case for children’s clothing, because children grow fast and the code would therefore change frequently.

Some respondents are worried of having to know their exact body measures, as, in their opinion, it would be too depressing, or could cause higher focus on dieting or idealisation of the thin. Others are worried of having to divulge their measures to store personnel, as they consider it too personal or embarrassing.

“Oh how unfortunate having to expose your exact measures when buying clothes!”

Generally, there are a lot of contradictions in the given comments, and opinions vary greatly between the individuals. However, it seems that a majority of consumers are ready to learn a new system based on centimeters, and are quite happy to get more information about the size in the form of a pictogram. They are more skeptical towards coding measures in letters, as that is not intuitively as easy to understand or remember.

3.3.4 Summary: Labeling practices are criticized, not the systems

This chapter discusses the size labeling systems and variations within sizes. Based on the survey answers, it is obvious that there are problems connected with the existing sizes and size labeling systems. Over 98% of respondents say that they find variations in clothing sizes, either very big differences or at least some variations. Less than one percent of respondents say that they can always use the same size. These figures can be seen as very significant criticism of how sizing labeling works at the moment. However, when the respondents were asked to give the size which they usually use, only three percent were not able answer because they thought it varied too much. This means that even though there are variations within sizes, the respondents can still usually select a size they think they often can use.

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66 Swedish female, 36, size M
When comparing the different consumer groups, women find more variations in sizes than men do, and normal weight respondents find the least variation in sizes, followed by underweight respondents. The overweight and obese find the most variations. These results correspond well with the earlier findings from the size measurements in stores. When looking at the few respondents that say that they can always use the same size, we find the same tendency as pointed out earlier: the labeling systems function best for men who have normal weight and women who have normal weight or are underweight.

The respondents had opinions of systematic variations in size labeling between different types of stores. Generally, we can see that there were much more “clothes smaller than average” than “clothes larger than average” answers. The majority of respondents feel that clothes are smaller than average in stores aimed at young customers, and in South-European chains. The percentage of small clothes in high-fashion stores is high, too, but the number of “don’t know” answers is very high, indicating that most respondents do not usually buy clothes in these types of stores. A majority of respondents think that sizes are closest to average size in large chains, followed by stores for adults and mail-order companies. A small number of respondents answered that some store categories have clothing sizes larger than the size code indicates. The category with the highest number of respondents who answered “larger than average” are the stores aimed at adults. The difference between the genders was not great, but a few more men answered “clothes are average size” than women did in most shop categories. Very many respondents commented that the sizes vary even within the chain/store.

Regardless of the fact that almost all of the respondents say that they find variations in clothing sizes, the majority still say that they are satisfied with most of the size labeling systems that are either based on letter sizes, common number sizes for men/women, the jeans inch sizes or the children’s sizes based on height. The exception to this are the systems based on children’s age and foreign systems which are found unsatisfactory. However, the respondents seem less satisfied than the results indicate when reading the large number of comments. One of the most common statements is that the respondents do not care which code system is used, as long as the clothing sizes are consistent. It is often mentioned that it is not only the size labeling that is the problem, but also to find clothes which fit different body types and heights, or the fact that the size is not available at all (usually concerning large sizes, but some small as well). This may indicate that many are satisfied with the labeling system itself, but all the less satisfied with the fact that there are variations within sizes and the availability of some sizes. When the respondents are dissatisfied with the actual size labeling systems, it is often due to the fact that different body types and lengths are often not given. There are numerous
comments that the trousers length should be included more often in the size code.

We also asked the respondents if they think it would be practical to have a new size labeling system, with the same sizes in all European countries, or if they prefer the existing systems. The majority of respondents (83%) agree that it would be very helpful to have a new size labeling system, whereas less than 10% are content with the existing ones. Based on the sample, men, young people, and the underweight or the normal weight respondents are more satisfied with the existing systems than women over 40 years old or overweight/obese respondents.

There are not very big differences between the respondents from the three Nordic countries. The majority of respondents from all three countries think that it would be practical to have the same size labeling systems everywhere. The Finns are most eager to have a new labeling system, whereas Swedes and Norwegians are slightly more satisfied with the existing systems.

When an example of the new proposed standard size labeling system is presented, the majority of both men and women are positive to the new system, but almost 50% has trouble understanding it. 13% of the respondents are negative towards it, as they think it is neither informative nor easy to understand. Women more often think that it is informative but difficult to understand the coding, whereas men score slightly more in the other categories, either considering it both informative and easy to understand, or neither. The age group over 60 is most positive to the proposal, followed by 40–59-year-olds. This came as a small surprise, as it is often thought that older consumers could have more trouble learning new things. However, this correlates well with the earlier finding that these consumers are the least satisfied with the existing labeling systems and wish to get more information on the size label. Another explanation might be that some of the consumers over 60 could find it physically more difficult to try on the clothes in stores.

The majority of respondents from all three countries think that the new size proposal seems informative but have some trouble understanding it. About every third respondent from each country is very positive to the proposal and thinks that it is both informative and easy. However, some differences between countries can be observed, as almost every fifth Norwegian respondent is negative towards the proposal and consider it neither informative nor easy to understand, as opposed to only about every tenth Finn. Nevertheless, one must take into account that the sample is not representative for the three countries.

A very common opinion based on the comments is that the pictogram with size measures is a good idea, and that the given main girth measure in centimeters is easy to understand, but the letter codes are less popular. Either they are not that well understood, would be hard to remember, or at least there should be tables easily available for checking it in the store.
Respondents often suggest different types of labeling that they would prefer to letter codes. Two main suggestions are either to give all the measures in centimeters, or to give different options in writing for length and width measures, such as long & slim fit.
4 Discussion and conclusions

This report discusses the relationship between clothes and size labeling, and how consumers experience this relationship. Three different types of materials were collected: size measurements of trousers in clothing stores, a consumer questionnaire and qualitative interviews. Chapters 2 and 3 presented these findings. In conclusion, we will combine and compare the results from the different sources in chapter 4.1. In the following chapter 4.2 we will discuss the size labeling system as a rational and emotive system. In chapter 4.3 we will see what the material reveals about the clothing size labeling myths that we presented in our introduction.

4.1 Different methods, similar results

The report is based on very different data sources. Method triangulation is not uncommon in the social sciences, but it is more unusual to combine methods from the social and natural sciences, like we have done here. We have also used both qualitative and quantitative social studies data sources. In addition to interviews the qualitative material included open questions and commentary fields in web surveys. A surprisingly large share of the respondents has used this opportunity, and the qualitative material is therefore much larger than we expected.

This material is interesting, but time consuming to analyze. In this report it is particularly time consuming because it is written in several different languages (Finnish, Norwegian, Swedish and English). In the report we have not taken full advantage of the potential that lies in the commentaries, but only extracted some main tendencies. The number of commentaries and their content show that size labeling is an issue that stirs up emotions. We wish to take the analysis of this material further, particularly with regard to how beauty ideals and gender stereotypes materialize in the clothes that are made easily available on the market.

In our work we were surprised to see the strong correlation between the different data sources. This is particularly true with regard to the respondents’ comments about how hard or easy it is to find clothes and their confidence in the labeling systems. Great variation in sizes of women’s clothing corresponds well to the project’s survey answers. Less than 1% of the survey respondents could always use the same size. The majority of women (65%) say that they find big size differences between different labels or stores, whereas the majority of men (51%) only find some variations. The survey material and measurements both show the same varia-
tion: Women have more problems than men, and big women have more problem than average sized women. In other words we get the same result regardless of whether we ask about confidence in the labeling system, problems with finding clothes, or if we go out and look for clothes and measure how the labeling system works.

In one sense this is a very positive result. It shows that our findings are not random, but part of a pattern that emerges regardless of method. But at the same time there is a sad reality behind our findings. This is reinforced by the fact that the groups concerned are also those who have the greatest difficulties in appearing well-dressed even when they find clothes that fit their size. Dressing a body that deviates from current beauty ideals is more difficult than dressing the ideal body (Entwistle 2000). Appearing well-dressed, modern, cool etc is problematic even if the clothes in themselves are right and fit their body size. In today's women's fashion the relationship between the body and the clothes is crucial. It is on the slim female body that the clothes appear “right”. At the same time, a body in accordance with current body ideals will easily be perceived as beautiful and modern, regardless of whether the clothes are (Klepp & Storm-Mathisen 2005 and 2006, Rysst 2008). Ideally, then, it should be the other way around: Big women have the greatest need for a wide selection of clothes.

The correspondence between beauty ideals and problems with both labeling and availability applies to women's clothes. The focus on the appearance of the male body is weaker, the clothes less tight fitting and the labeling system works better. The latter emerges both in the survey answers and our measurings. Moreover, the variation in men's clothing is smaller and clothes norms for men are more unequivocal (Klepp 2004). Both these factors indicate that it is easier to dress a man than a woman, but that violations of the norms have more severe consequences. Beauty ideals for men are not only less explicit, but also different than for women. It is the small men and not the big ones who most easily fall short of the ideal. It is therefore worth noticing that the measurings showed a tendency that clothes for small men have greater variations in size than clothes for big men. This tendency is weak and non-significant, but interesting nevertheless. It strengthens the assumption that there is a connection between beauty ideals and what the clothes business prioritizes. This applies not only to the size of clothes produced and how they are marketed, but also in details such as control with the right use of the labeling systems.
4.2 The size labeling systems as rational and emotive systems

An important goal of this project was to collect information that could contribute towards the on-going standardization work. We imagined that our most important contribution would be to obtain consumers’ reactions to the planned system. We now realize that other aspects that have emerged may be equally relevant and important.

We see that there are a lot of contradictions in the comments concerning the new proposed labeling system. However, it seems that a majority of consumers are ready to learn a new system based on centimetres, and are quite happy to get more information about the size in the form of a pictogram. They are more sceptical of coding measures into letters, since this is not intuitively easy to understand or remember.

All of the answers to different questions concerning satisfaction with sizing systems support the earlier finding that the respondents who use bigger sizes are less satisfied with the existing sizing systems, and hope for a better functioning system.

Both the qualitative interviews and the commentaries in the web questionnaire show that size labeling not only acts as a way to find clothes that fit the body. The clothes measurements refer to the measurements of the body, which again are measures of beauty and self-control, particularly for women. Getting into a particular size thus becomes a goal in itself. We see an increasing tendency that tape measures replace the scale in magazine coverage of dieting. The shift of focus from body weight to a toned and correct body shape indicates that clothing sizes will remain crucial in the struggle to obtain the perfect body. In our report we simply have not had the chance to exploit the potential in the collected data material or in combining it with other types of sources. These are themes that we would like to explore further.

As mentioned in the introduction, today’s clothing industry is dependent on a system where clothes are made in RTW sizes that are meant to fit most people. Size labeling is a communication system between manufacturers and consumers. The purpose of the system; to make it simpler to find clothes that fit, presupposes three things: the manufacturers must label the sizes correctly, the consumers must understand and trust the size labeling and the clothes must fit the consumers’ bodies. The material revealed flaws in all these three areas. Producers label the clothes incorrectly and produce too little selection in the big sizes. Consumers, on the other hand, do not trust the labeling system – for good reasons. In addition they attribute intrinsic value to the symbols used to indicate clothing sizes. A system that was developed to indicate the measurements of clothes has become a normative system connected with body ideals. Developing a labeling system that works better thus entails challenges on several levels. A main challenge is of course to systematize information
and make it easily available. But this must be done in a way that does not reinforce the stigmatizing aspects of the sizes that do not fit the prevailing beauty ideals. In the short term a change of systems may break down the intrinsic value that is attributed to the different symbols today. It will take some time until new abbreviations create the same associations as 38 or 40 today. But such an effect will probably only be temporary.

A more functional system will also depend on correct use by the producers. In order to ensure this, the new system must be more transparent, consumers' rights must be strengthened, and other possible forms of sanctions against incorrect labeling should be considered.

4.3 Only myths, but not unjustified

We started this report by referring to two claims that are often made concerning real sizes and size labelling: fashion manufacturers mark the sizes too big, which implies that the clothes are smaller than the labels indicate. The opposite to this is so-called “vanity labeling”, which means that the garments are labeled smaller than they actually are in order to flatter the female consumers as they fit into a smaller size than their “real” size. It is worth noticing that these myths are connected with women's clothes and female body ideals.

The analysis of the survey material shows that female respondents believe that they experience both types of systematic mislabeling. They answer that there are systematic variations in size labeling between different types of stores. Generally, we find that there were much more “clothes smaller than average” than “clothes larger than average” answers. The majority of respondents feel that clothes are smaller than average in stores aimed at young customers, and in South-European chains.

The percentage of small clothes in high-fashion stores is high, too, but the number of “don’t know” answers is very high, indicating that most respondents do not usually buy clothes in these types of stores. A majority of respondents think that sizes are closest to average size in large chains, followed by stores for adults and mail-order companies. A small number of respondents answered that some store categories have clothing sizes larger than the size code indicates. The category with the highest number of respondents who answered “larger than average” are the stores aimed at adults. One problem with discursive material is that there is no way of knowing whether the answers refer to the respondents' own experiences, or to how they think something is. It is also possible to imagine something in between; that experiences that conform to expectations are noticed and ascribed more weight than other, more random experiences.

The measurements of clothes in stores provide a material that is not influenced by this discussion. Thus it is better suited to determine
whether or not the myths are rooted in the way the labeling system is practiced. Results from the measurements do not confirm the myths. The different age profiles of the clothing stores appeared to have a minor impact on the sizes of the measured trousers. Nevertheless, we saw a tendency that stores that sold trousers aimed at young women have slightly smaller sizes than stores aimed at adult women, but this difference is so small that it does not justify generalization. The differences between stores that target different age groups are small compared to the great variation in labeling in general. Thus it is possible to find both small and big clothes within the same size in most stores. We found no indication of the other type of systematic mislabeling, vanity labeling. Nor was there any correlation with the type of store or the price level. The claim that South European clothes were smaller than Scandinavian clothes was not substantiated. However, we found differences between the Scandinavian countries, although we should stress that the material is small when we get to this level of detailing.

The fact that we cannot confirm the myth's claim of intentional misuse of the labeling system does not mean that the myth is unjustified. The measurements show that there is good reason to question how the labeling systems work. Measurements of trouser waist girth, upper leg girth and inseam length reveal that differences within clothing sizes are immense. A pair of trousers labeled L could be smaller than another labeled S. The inseam length differed by up to 14 cm between trousers labeled as the same size. In general, we found discrepancies in trouser sizes for both men and women, but the size variations are greater for women.

The results indicate that it is necessary to try on trousers before buying them; not only to see if the model fits, but also the size.

The myths of systematically inaccurate labeling have not arisen without a reason. However, in the myths there is a claim of intention; that the clothes are mislabeled in order to sell more, whether it is intended as a marketing advantage for clothes that should only fit thin “trendy” bodies, or the opposite, that the labeling flatters the customer who fits into a smaller size. We did not find any evidence of such intentional and organized mislabeling, but only saw small tendencies of this. This does not mean that the variations are random; they are systematic in the sense that they are directly connected to the larger sizes for women, but the conscious motive seems to be missing. We cannot fully explain why this is the case, but believe that it has more to do with the lower priority given to the work of scaling up the sizes than with intentional errors. Regardless of the reason, it has consequences for the consumers.

When smaller sizes for men and larger sizes for women are hard to find, it may be more difficult for these groups to find the correct clothing sizes in stores. The further a person is from size medium, the more difficult it becomes to find clothing that fits. The fact that small men and large women have a poor selection of clothes, as well as non-functioning sizing
systems for the latter group, is not a coincidence if we look at the beauty ideals and gender stereotypes. First of all, women experience more focus on their looks and body shape than men do (Williams & Germow, 2004 and Sobal & Maurer, 1999). Secondly, the opposites of tall men and small women are favored as ideals (Nettle 2002). The notion that all men are tall and all women are small is not realistic, as there is a great overlap between genders in size and height (Vézina & Courville 1992). This tendency could be interpreted as giving lower priority to consumers who differ from the ideals since clothes selection is narrower and models are different than clothes sold in smaller sizes.

The measurement results and the problems encountered when measuring the garments indicate that the sizing systems are confusing and full of disparities. The labeling system that the European Standardization Committee is developing will first of all be an advantage to many consumers. In particular, it will be of great importance to groups who find current size labeling insufficient, and for consumers who are not able to try on clothes in the stores themselves. Secondly, a better understanding of the relationship between bodies, clothes and size labeling will be useful in future discussions, due to the growing focus on body and dieting, as well as the increased weight of the population. And finally, a diminishing number of mistake purchases will be beneficial for the environment as it decreases the disposal of textiles.
References


EN 13402–3 (2004): Size designation of clothes - Part 3: Measurements and intervals


Klepp, Ingun Grimstad & Storm-Mathisen, Ardis (2005): Reading fas-


Nordic statistical yearbook (2007): Nordic Council of Ministers


prEN 13402–4 (2007): Size designation of clothes - Part 4: Coding system


Sammanfattning


Varken varumärkets ursprungsland, tillverkningsland, eller vilket av de tre deltagande länderna plaggens var inköpta i påverkade förhållandet mellan storleksmärkning och klädstorlek på något entydigt sätt. Byxor sålda i affärer menade för unga kvinnor var något mindre än byxor märkta på samma sätt i affärer tänkta för vuxna kvinnor, men skillnaden var liten i förhållande till variationen totalt sett. Vi såg inte heller någon systematisk variation när det gäller herrbyxornas storlekar relaterat till märkningen av dem. Den uppmätta storleken på byxor som skulle motsvara en och samma storlek, varierade mellan de flesta affärerna. Därför var det svårt att dra slutsatser om systematiska skillnader. Dock hade affärer som inte ingick i någon affärskedja, och som sålde billiga kläder av okända märken i ungdomlig stil, i genomsnitt mindre plagg i en viss storlek, än vad som var genomsnittet för kläder i samma storlek i kedjeaffärer som sålde välkända märken.

Arbetet med att mäta byxor i butikerna gav information om var man kunde hitta de olika storleknarna. Det är svårt att finna stora storlekar för kvinnor och små storlekar för män. Möjligheten att köpa kläder av en viss storlek skiljer sig också åt mellan affärerna. Kvinnor som använder storlek 44 eller större behöver ofta gå till speciella affärer för stora storlekar, eller separata avdelningar i affärskedjornas butiker. Flickor som använder
större än 32'' i jeans storlek kan behöva köpa sina jeans på herravdelningen, om de vill köpa sina byxor i jeansbutiker som riktar sig till unga människor.

För det andra diskuterar rapporten resultaten från konsumentenkäten och intervjuerna. Den tar upp shoppingvanor och stil. Fokus ligger på dem som inte kan hitta kläder som passar deras stil, kroppsform eller storlek. Generellt har kvinnor svåratre att finna kläder som passar såväl deras stil, som kroppsform och storlek. Över 60% måste lägga ner tid på att hitta något som passar eller kan inte hitta kläder i den stil de föredrar, som säljs i deras storlek. Äldre kvinnor tycker att det är svåratre att hitta kläder i ”sin stil” än vad unga kvinnor gör. Runt hälften av männen i alla kategorier tycker att det är lätt att finna kläder som passar deras stil. Vi ser en liknande tendens när vi tittar på body mass index (BMI) och ålder i relation till de erfarenheter människor har av att hitta kläder som passar deras stil, kroppsform och storlek. Att hitta kläder som passar både till kropp och stil blir svåratre med ökande BMI, ett resultat som stämmer väl överens med den ökande tendensen till fokus på kroppen i kläderna, framför på kläderna i sig. Det finns vissa skillnader mellan de tre länderna. Över 50% av de finska, 40% av de norska och runt 35% av de svenska informanterna säger att de behöver lägga ner tid på att hitta något som passar. Generellt tycker människor med BMI under 25 i alla tre länderna att det är lätt att hitta kläder som passar deras stil, men även i det avseendet är de finska informanterna minst nöjda.


Nästa del av rapporten diskuterar konsumenters uppfattningar om storleksmärkningsystemet och variationer inom storlekar. Enkätvaren visar att det är uppenbart att det finns problem som hänger samman med de existerande storlekar och storleksmärkningsystemen. Över 98% av respondenterna säger att de märker variationer när det gäller kläder märkta med samma storleksbeteckning. Under 1% anger att de alltid kan ha samma storlek. Kvinnor upplever mer variationer inom storlekar än vad män gör. Normalviktiga respondenter, följd av underviktiga, upplever minst variationer. Överviktiga och mycket överviktiga upplever störst
variationer på kläder märkta med en och samma storlek. Dessa resultat överensstämmer väl med resultaten från storleksmätningarna i affärerna. Respondenterna hade åsikter om systematiska variationer i storleksmärkningen mellan olika typer av affärer. Generellt kan sägas att många fler svarade att "kläderna är mindre än genomsnittligt" än tvärtom. Majoriteten av respondenterna har uppfattningen att kläder är mindre än genomsnittligt i affärer riktade till unga konsumenter och i Syd Europeiska kedjor. En majoritet av respondenterna tycker att kläder är närmast genomsnittlig storlek i stora klädkedjors butiker, följt av affärer för vuxna och postorder-företag.


I rapportens avslutning sammanställs och jämförs resultaten från varje del med varandra och viktiga teman för fortsatta studier pekas ut. Även om källmaterialet rapporten baseras på är varierande så sammanfaller resultaten i stor utsträckning. Detta stärker resultatens validitet. Storvuxna kvinnor rapporterar de största problemen med att finna kläder som passar och de har också minst tilltro till storleksmärknings systemen. Detta stämmer väl överens med resultaten från mätningarna av byxor i affärerna.

Vidare diskuteras vilka konsekvenser rapportens resultat har för det pågående Europeiska standardiseingsarbetset med att utveckla ett gemensamt storleksmärkningssystem. De tekniska och kommunikativa aspekterna är viktiga. Systemet bör vara tillräckligt flexibelt, samt lätt att förstå och tillämpa korrekt. Ytterligare en, ofta bortglömd aspekt, för att utveckla ett mer välfungerande system är att storleksmärkning inte bara är ett
rationellt system för kommunikation, utan också sammankopplad med känslor och kroppsideal.

Rapporten avslutas genom en tillbakablick på myterna som existerar när det gäller klädstorlekar och storleksmärkning. Vi fann inte medveten eller organisierad felmärkning, men resultaten visar att myterna inte har uppstått utan skäl. Dagens storleksmärkningssystem är inte förvirrande bara för så många olika system används sida vid sida, utan också eftersom de inte används korrekt.


Vaatemittausten yhteydessä havaittiin myös, että eri kokojen saatavuus vaihteli myymälöittäin. Naiset, jotka käyttävät kokoja 44 tai sitä suurempia kokoja, joutuivat usein menemään ostoksille ”isojen tyttöjen” myymälöihin tai vaateketjun myymälän erilliselle osastolle. Isompien kuin 32 tuuman farkkuja käyttävät tytöt puolestaan saattavat löytää sopivat farkut ainoastaan miesten osastolta, mikäli haluavat ostaa farkkuja nuor-ten vaatemyyjien myymälöissä.


vaateketjuissa. Lähinnä keskimääräistä olevat vaatekoot löytyvät suurimman osan mieletä isojen vaateketjujen myymälöistä ja seuraavaksi useimmin aikuisille suunnatuista myymälöistä sekä postimyynnistä.


Yhteenvetona voidaan sanoa, että erilaisista tutkimusmenetelmiä huolimatta tulokset ovat hyvin samansuuntaiset, mikä vahvistaa tulosten luotettavuutta. Isokokoisilla naisilla on eniten ongelmia sopivan kokoisten vaatteiden löytämisessä ja vähiten luottamusta kokomerkintöjä kohtaan. Heidän ongelmansa ovat hyvin ymmärtäviä kaupassa tehtyjen mittausperusteella.

Mitä vaikutuksia tuloksilla voisi olla meneillään olevaan eurooppalaiseen kokomerkintöjen standardisointityöhön? Merkinnän tekniset ja kommunikatiiviset tekijät ovat tärkeitä, jotta järjestelmä olisi riittävä joustavuudella, helposti ymmärtettävän ja oikein käytettävän. Toinen, usein unohtettu näkökulma kehittää paremmin toimivaa järjestelmää korostaa, ettei kokomerkintä ole vain järkevä kommunikointijärjestelmä, vaan liittyy myös tuntemuksiin ja vartalohanteisiin.

Appendices

Appendix 1
Form for size measurement of trousers

Appendix 2
Size comparison tables

Appendix 3
Questionnaire
Appendix 1 Form for size measurements of trousers

Form for size measurements of trousers

<table>
<thead>
<tr>
<th>Shop:</th>
<th>City:</th>
<th>Specimen No:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Label/producer/name:</th>
<th>Price:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fibre content:</th>
<th>Colour:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Type of trousers:**
- Jeans
- Loose
- Cargo
- Tight
- Stretch
- Straight
- Ankle length
- Capri/shorts
- Other: ___________

**Wash:**
- □ Wash
- □ Wash separately
- □ Shrink __% 

**Size label:**
- □ Pictogram: Yes
- □ No

**Smallest sold size:** ___________

**Largest sold size:** ___________

<table>
<thead>
<tr>
<th>Measurements</th>
<th>Size S=</th>
<th>Size L=</th>
<th>Size</th>
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</thead>
<tbody>
<tr>
<td>Waist Ø</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hip/widest tight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seat seam</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inside leg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outside leg</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

□ Female: S or 36 or jeans size 27” and L or 44 or jeans size 33”

□ Male: S or 46 or jeans size 31” and L or 52 or jeans size 36”

**Other information/comments:** __________________________
Appendix 2 Size comparison tables

Size tables based on EN 13402-3:2004 Size designation of clothes - Part 3: Measurements and intervals

Combined information from table 27 Letter code for women and table 2 Bust, waist and hip girth measurements for women

<table>
<thead>
<tr>
<th>Bust [cm]</th>
<th>XS</th>
<th>S</th>
<th>M</th>
<th>L</th>
<th>XL</th>
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Range: 68-74, 74-82, 82-90, 90-98, 98-106, 106-114, 114-131, 131-143

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<th>Waist girth [cm]</th>
<th>XS</th>
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<th>M</th>
<th>L</th>
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Corresponds to Nordic size 1: C36 C38 C40 C42 C44 C46

Combined information from table 28 Letter code for men and table 10 Chest and waist measurements for men (shows a drop of minus 12 cm)

<table>
<thead>
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<th>Chest [cm]</th>
<th>XS</th>
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<table>
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<th>XL</th>
<th>XXL</th>
</tr>
</thead>
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<td>110</td>
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Range: 65-73, 73-81, 81-89, 89-97, 97-105, 105-113, 113-121, 121-129, 129-137

Corresponds to Nordic size 1: C44 C46 C48 C50 C52 C54

Sizes that were selected for measurements in shops are marked with grey background.

---

1 According to Nordic mail-order companies size tables
Comparison of size tables of mail-order shops (body dimensions)

### Women’s size C36 (or S if 36 not given)

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<th></th>
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<th></th>
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<td>84</td>
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<tr>
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<td>92</td>
<td>27</td>
<td>C36</td>
<td>S</td>
<td>S=34/36</td>
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<tr>
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<td>S</td>
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<tr>
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<td>36</td>
<td>S</td>
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<td>S</td>
<td>S=34/36</td>
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<td>90-99</td>
<td>91-94</td>
<td>26-27</td>
<td>US 4-44</td>
<td>S</td>
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<td>88-93</td>
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### Women’s size C44 (or L if 44 not used)

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<th>Denim [inch]</th>
<th>Given size</th>
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<th>Other information</th>
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<td>XL</td>
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<td>106</td>
<td>33</td>
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<td>44</td>
<td>L</td>
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<td>S</td>
<td>S=46</td>
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<td>S</td>
<td>-</td>
</tr>
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<td>Habi</td>
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<td>46</td>
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<td>Sportsmann</td>
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<td>Gap</td>
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<td>Celina</td>
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</tr>
<tr>
<td>La Redoute</td>
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<tr>
<td>Smart plus</td>
<td>-</td>
</tr>
</tbody>
</table>
Appendix 3 Questionnaire

Questionnaire

1. Gender:  O Male  O Female

2. Age:  _____ years

3. Working status:
   O Employed full time
   O Employed part-time
   O Student
   O Non working/homemaker
   O Unemployed
   O Retired
   O Other

4. Education:
   O Primary and lower secondary school
   O Upper secondary education
   O Higher education (University or college)
   O Other

5. Household type:
   O Single
   O Two adults (married, part-time etc)
   O Family with children (1 or 2 parents and children under 18 years old)
   O Other household type

6. Number of children under 18 years old in the household:  _____

7. What is your approximately yearly gross income before taxes and other deductions?  _____ [currency]

8. In which country do you live?
   O Denmark
   O Finland
   O Iceland
   O Norway
   O Sweden
   O Other (If other, which?  _____)

9. Where do you live?
   O Capital city area
   O Large city (over 100 000 inhabitants)
   O Medium size city (20 000-100 000 inhabitants)
   O Small city (less than 20 000 inhabitants)
   O County or village
   O Countryside
   O Other/Don't know

10. How far from your home is the nearest shop that sells clothes? Approximately  _____ km
11. Which of the following do you think describes your body type and size best? (select one)
   O Quite normal height and body type
   O Quite normal height but thinner than average
   O Quite normal height but rounder/more stout than average
   O Shorter than average but normal body type
   O Shorter and thinner than average
   O Shorter and rounder/more stout than average
   O Taller than average but normal body type
   O Taller and thinner than average
   O Taller and rounder/more stout than average
   O None of the above describes my body type, which is:

12. How would you describe the size of your following body parts?

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<th>O Normal length</th>
<th>O Short</th>
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<td></td>
</tr>
<tr>
<td>Leg</td>
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<tr>
<td>Back</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chest/bust girth</td>
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<td>O Normal size</td>
<td>O Small</td>
</tr>
<tr>
<td>Waist girth</td>
<td>O Large</td>
<td>O Normal size</td>
<td>O Small</td>
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<tr>
<td>Hip girth</td>
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<td>O Small</td>
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<tr>
<td>Shoulders</td>
<td>O Wide</td>
<td>O Normal size</td>
<td>O Narrow</td>
</tr>
<tr>
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<td>O Lower body is larger than upper body</td>
<td>O Balanced upper and lower body size</td>
<td>O Upper body is larger than lower body</td>
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<tr>
<td>Other comments?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. Is it easy for you to find clothes that fit your body shape and size? (select one)
   O Yes
   O No, because my body shape is not standard (for example different size of upper and lower body)
   O No, because my size is often not available at shops
   O Some types of clothing are easy, others are difficult. Give examples of clothes that are difficult:

14. Is it easy for you to find clothes that both fit the style you wish to have, as well as your size and shape?
   O Yes, it is very easy
   O Yes, quite easy
   O No, I have to use a lot of time to find something that fits both style and size
   O No, the style of clothing I like is almost never sold in my size
   O I don't buy clothes for myself
   O Don't know

15. How would you describe your clothing styles? (you can select several options)
   O Classical
   O Stylish
   O Fashionable
   O Comfortable
   O Trendy
   O Nordic design
   O Colorful
   O Neutral
   O Simple
   O Relaxed
   O Sporty
   O Practical
   O Rocker
   O Punk
   O Hip Hop or Skate-board
   O Gothic
   O Hippie
   O Retro
   O Ethnic or folklore
   O Expensive
   O Cheap
   O Cross-dresser or transvestite
   O I have no specific style
   O Other, what?
16. Which clothing size do you usually use?

Lettercode:
- O XXXS
- O XXS
- O XS
- O S
- O M
- O L
- O XL
- O XXL
- O XXXL
- O 4XL or larger
- O Can't say, varies too much
- O Wish not to tell
- O Don't know

Numbercode:
- O 30 or smaller
- O 32
- O 34
- O 36
- O 38
- O 40
- O 42
- O 44
- O 46
- O 48
- O 50
- O 52
- O 54
- O 56
- O 58
- O 60
- O 62
- O 64
- O 66
- O 68
- O 70
- O 72 or larger
- O Can't say, varies too much
- O Wish not to tell
- O Don't know
- O Comments: ____

17. How tall are you? ____ cm (optional to answer)

18. How much do you weigh? ____ kg (optional to answer)

19. Do you try on these clothes in a shop before buying them to yourself?

<table>
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<th></th>
<th>Always</th>
<th>Usually</th>
<th>Sometimes</th>
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<td>O</td>
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<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Dress or suit</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Trousers</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Underwear</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Bra</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Socks</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>
20. Do you buy these clothes from post order or internet shops?

<table>
<thead>
<tr>
<th>Type</th>
<th>Often</th>
<th>Sometimes</th>
<th>Seldom</th>
<th>Never</th>
<th>Don't buy that kind of clothes</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-shirt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shirt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blouse or sweater</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jacket</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skirt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dress or suit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trousers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Underwear</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bra</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

21. How much money would you estimate you spent on your own clothing in 2007? (Shoes NOT included)
About ______ [currency]

22. Do you often buy clothes to others than yourself? (you can select several options)
- Yes, to my children
- Yes, to my spouse or partner
- Yes, to some other family members or relatives
- Yes, to my friends
- Yes, to children of my friends/relatives
- No, I seldom buy clothes to others
- No, I never buy clothes for others
- Don’t know
- Comments:

23. Have you sometimes bought a bit too tight garment because you have been planning to get thinner?
- Yes, it has happened often
- Yes, but only once or twice
- No
- Don’t know
- Comments:

24. Do you think that the clothing sizes are varying between different labels or stores?
- No, I can always use the same size
- Yes, I find some variations
- Yes, I find very big differences
- I don’t know

25. Do you think that the clothes in your size are smaller or larger than average at following types of shops:

<table>
<thead>
<tr>
<th>Type</th>
<th>Smaller</th>
<th>Average</th>
<th>Larger</th>
<th>Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stores aimed for young people, such as JC or BikkBik</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stores aimed for adults</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large chains for whole family, such as KappAhl or H&amp;M</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High fashion stores that sell designer brands such as Armani, Gucci or Prada</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South-European chains such as Zara, Mango or Benetton</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Street- or market stalls</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post order or internet shops, such as Ellos or H&amp;M &amp; MRose</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments:
26. How satisfied are you with existing sizing systems?

<table>
<thead>
<tr>
<th>Type</th>
<th>Very satisfied</th>
<th>Satisfied</th>
<th>Dissatisfied</th>
<th>Very dissatisfied</th>
<th>Don't buy that kind of clothes</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter sizing, such as S - M - L</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Women's sizes, such as 36 - 38 - 40 - 42</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Men's sizes, such as 46 - 48 - 50 - 52</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Jeans sizes in inches such as 27&quot; - 28&quot; - 29&quot;</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Children's centimeter sizes such as 150 - 154 - 140 cm</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Children's sizes based on age such as 1 - 2 - 3 years</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Other sizes such as UK 8 - 10 - 12 - 14</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

Comments:

27. Do you think it would be practical to have a new sizing system, with the same sizes in all European countries?
   - O No, the existing ones are fine
   - O Yes, it would be very helpful
   - O Don't know
   - O Comments:

This is a proposal for a new size labelling system in Europe. It includes a pictogram with body dimensions and a code based on the measurements.

![Pictogram](image)

Code: G083E

The new sizing codes will include the circumference of the main body dimension in three numbers, which will be either the chest or the waist measurement depending on the type of clothing. Clothing for lower body will be based on waist measurement, whereas clothing for upper body will be based on chest measurement, as in the example above where 088 means 88 cm chest circumference. Additional information of body type and height can be given with letter codes. In the example, the first letter indicates the height (168 cm = G) and the last letter indicates the hip girth (92 cm hip = F). When buying clothes you must know at least your chest and waist circumference and compare them to the pictogram and/or the three numbers of coding.

28. Do you think this system is informative and easy to understand?
   - O Yes, both informative and easy to understand
   - O It seems informative but difficult to understand the coding
   - O No, neither informative nor easy to understand
   - O Don't know
   - O Comments: