

An Ethnographic Examination of the Role of Energy Efficiency in the Sale and Purchase of Large Household Appliances in Scandinavia

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This paper is an examination of the role of energy efficiency in the sale and purchase of large household appliances in the Nordic countries. We have focused on the environment in the retail stores where the sale of appliances takes place. This investigation is based on interviews with sales personnel in 54 different household appliance stores in Stockholm, Oslo, Helsinki and Copenhagen. In addition we have carried out a content analysis of 76 product catalogues. We have examined what sales personnel and customers emphasize in the transaction and how the issue of energy efficiency fits into the process and the role of energy efficiency in sales training and the sales literature. Finally, we examine the potential for better reporting of energy consumption in both catalogues and in energy labels for the appliances. In addition, we examine the potential for better sales training. In general, we have found that energy efficiency plays only a small role in the sales process. Energy efficiency had a low priority in the sales training and in the sales literature. It was often seen as a minor technical characteristic which is of little interest to the sales personnel. Efficiency was not a sales argument and therefore sales personnel are not interested in promoting it in the same way they promote the size, quality, price and functions of the appliances.

Introduction

There are wide variations in the efficiency of the household appliances which are sold in the Nordic countries, but our findings show that these differences play a minimal role in their sale. For example, an investigation by Nørgård showed that the average refrigerator in use in 1988 consumed 388% more electricity per year than the most efficient brand available on the market. He also found that the average washing machine used 166% more than the most efficient machine on the market, the average dish washer used 161% more and the average clothes dryer used 148% more (Nørgård 1989). In Figure 1 we show that there were wide variations in the efficiency between the most and least efficient refrigerators for sale in Denmark in 1991. In spite of these variations in efficiency, we have found that neither the sales personnel nor the customers are particularly knowledgeable when it comes to energy efficiency in household appliances. In addition, we have found that efficiency plays a minimal role in the sale and purchase of appliances.

The focus of this study focus has been on the environment in which the sale of appliances is actually transacted, the retail store. We have been interested in finding out what the sales personnel and customers emphasize in the transaction and how the issue of energy efficiency fits into the

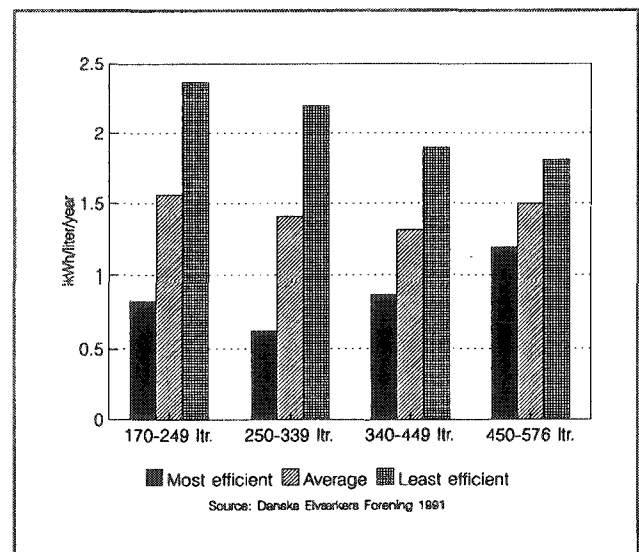


Figure 1. Efficiency Differences for Refrigerators Available in Denmark, by Capacity, 1991

process. An understanding of these issues will help us to understand the retail environment and help to develop policies which can increase the role of energy efficiency.

After a discussion of the methods used in the study, we examine how sales personnel differentiate between "sales arguments" and "technical details." Then we discuss the role of energy efficiency in sales training and in the sales literature. Next, we review our findings on energy efficiency as seen by both the sales personnel and by the customers. Finally, we explore several issues associated with strengthening the role of energy efficiency.

Methods

This investigation has been based on interviews with sales personnel in 54 different household appliance stores in Stockholm, Oslo, Helsinki and Copenhagen. We interviewed 13 sales personnel in Oslo, 12 in Copenhagen, 16 in Stockholm and 13 in Helsinki. In addition, we have interviewed 20 customers on their experiences in the purchase of large household appliances.¹ We used information from appliance wholesalers and telephone directory listings to locate stores in the downtown areas, in the older, more established, residential areas and in the newer shopping centers in the outskirts of the cities we visited. The stores included both owner run establishments and those which were parts of larger chains. We have interviewed sales people in approximately 20-30% of the appliance stores in the different cities. We feel that we have gained a representative record of attitudes and practices related to the sale and purchase of household appliances.

Upon entering a store we were met by a sales person to whom we presented ourselves as researchers. We explained, in general terms, our work and asked for permission to interview the sales person. In most cases, the interview took place over the next 10 to 15 minutes. In some cases we were referred to a supervisor or an owner. In four cases we were not allowed to carry out the interview, generally because the sales personnel had other, more pressing matters to deal with. On the whole our questions were answered cheerfully and the sales people seemed interested in contributing to our study.

In the interviews we gathered information on the sales presentation and the sales personnel's perceptions of the customer's shopping habits. In addition, we examined the role of energy efficiency in the training which the sales people receive and collected opinions on the advantages and disadvantages of an appliance efficiency labeling system.

In several of the stores we asked for, and were granted, permission to interview customers. In these interviews, the customers were asked which characteristics were important when they were shopping for larger appliances, how

they went about shopping for these appliances and what role energy efficiency played in their decision to buy a particular machine.

During our visits we also collected examples of the sales literature which were available to customers. We collected 76 different catalogues covering 20 different manufacturers and examined them in relation to the five major appliance types. We examined the catalogues for, among other things, accessibility and presentation of consumption information, consistency in the presentation of data, and information on testing procedures.

Finally, we did several short interviews with the people who were responsible for organizing the manufacturer's sales courses for the sales personnel.

The Role of Energy Efficiency in the Sales Process

Sales Arguments

A general finding from our examination of sales training and the sales literature is that energy consumption information is characterized as a technical detail, not a sales argument. In the words of one of our respondents, "The training concentrates on sales arguments, information like that (energy efficiency) is in the literature." This quote contains the basic dichotomy of sales arguments vs. technical details which is reflected in the training and, in spite of the respondents contention, in the catalogues. Sales arguments are made up of information which will convince customers to purchase a particular appliance. Indeed, along with smiles and shoeshines, sales arguments are the stuff that a sale is made of. In the stores we visited, and the catalogues we examined, the sales arguments included characteristics such as size, price, quality, and functions. Technical details are other characteristics of the machines, such as number of shelves in refrigerators, the appliance's weight, and, quite often, the energy consumption, which are treated as background information and are of only limited use in the sale of appliances.

We have found that sales personnel have developed strategies to steer customers away from the issue of energy efficiency. In many of our interviews it did not take the sales representative long to tell us that energy efficiency was not an important consideration. We were told that there were not significant differences between the efficiency of the appliances and that efficiency is irrelevant because energy is cheap.

Sales Training

There are both formal and informal types of training available to the sales personnel. Formal training consists of courses offered by producers or, in some cases the retail outlet. Informal training is largely in-store socialization by fellow workers. We did not find a strong emphasis on energy efficiency in either the formal sales courses or the informal socialization of sales personnel.

We found that the sales personnel in Copenhagen had access to a wider range of training than their colleagues in the other countries. For example, a Danish sales person reported that he had been through "a 14 days course with, among other things, 4 days on energy." We did not find a similar commitment to sales training in the other cities nor did we find a similar focus on energy efficiency issues.

Manufacturer sponsored sales courses are the major form of formal training. About 75% of the sales personnel to whom we spoke indicated that they had participated in manufacturer sponsored courses held either in a course center or in the retail store. Our respondents indicated that these courses often corresponded to the introduction of new models of appliances.

"Every time a new product comes out on the market there is a course held by either the producer or the chain."

The purpose of the courses are to provide the sales people with sales arguments.

"They (the courses) are positive because we know what we are selling."

"I must know about the machines. If I do not know about them I cannot sell them."

Another focus of the sales courses is to give sales personnel tips on how to approach different types of customers.

"They teach us how to manipulate customers, how to try to figure out the person,"

"They teach us how to sell, what is new, how to handle customers."

The courses also focus on teaching the personnel a limited number of salient arguments. As one sales man said "(There are) not too many details" about the appliances. We found that energy efficiency is very often classified as one of the "details" and thus, there is only a limited focus

on this issue in the courses. One sales person said that "The sales training does not have much on energy use, we read about it in the sales brochures." This lack of priority was also verified in discussions with those responsible for organizing the sales courses. In Norway, for example, we were told that there was not a focus on energy efficiency in the sales courses because "that is not an important sales argument. Energy is too cheap in Norway." We were met with similar sentiments in Stockholm and Helsinki. This underscores the sense that energy efficiency is often seen as only a background fact, not something that sells appliances.

Another method for training sales personnel which was mentioned in the interviews was the informal socialization in the stores. As one man said, "I have learned the most in the store." A man in Helsinki noted proudly that he learned the most from reading the sales brochures and operating instructions provided by the manufacturers. Several other respondents noted that they learned as much from each other as they did from the sales courses. This is an undeniably important form for imparting knowledge to new sales personnel. However, like other aspects of the information delivery process, it is almost totally devoid of an emphasis on energy efficiency. Since sales personnel receive little information on energy consumption in either their formal or informal instruction, they usually chose to either avoid the subject in their sales presentation or they minimized its importance. A sales woman in Oslo noted that "You do not point customers in the direction of things that you are not sure about." Sales personnel often avoided the issue with arguments such as "Most appliances use about the same," or as a sales man in Stockholm said "Most refrigerators are the same." Another version of this strategy was used by a sales man who argued against labeling by saying that "energy is cheap." Regardless of their actual merit, these arguments indicate that there are many false notions about the energy consumption of appliances. There is a need to introduce adequate information on energy consumption into sales training.

Product Catalogues

Several of the sales personnel we interviewed indicated that the sales literature is an important source of reference. It is seen as a source for in-store education and as a backup for issues not covered in the sales courses. In addition, the catalogues are taken into active use in the sale of appliances in the sense that they, in effect, extend the sales presentation beyond the store into the homes of the customers. Thus, their presentation of energy efficiency information is critical.

We gathered sales literature and analyzed the way in which it reported energy use. In general, we found that it was somewhat difficult to find energy consumption information in the catalogues. While the information is comparable from catalogue to catalogue for some appliances--most notably refrigerators--and while some manufacturers are more complete in their information than others, there are many problems with the sales literature which make it difficult for the reader, be it a customer or a sales person, to gain insight into energy efficiency.

Our examination of the catalogues resulted in the following findings:

- Many manufacturers do not always list energy consumption information in their catalogues, making comparison across brands impossible.
- Energy efficiency issues are rarely given any significant focus in the catalogues.
- The units of measurement are not always provided in the catalogues.
- The testing conditions are almost never specified and when they are specified they vary from manufacturer to manufacturer.
- When data is listed, it is given in such a way so as to make it difficult to determine lifecycle energy costs.

When considering the specific appliances, we found that the information on refrigerators was the most complete of the appliances we considered. This does not mean, however, that the presentation was problem free. The information on refrigerators was most commonly in kWh/24 hours, a statistic which camouflages lifetime costs of the appliance. Customers would receive a more realistic understanding of consumption if it were listed as kWh per year. Under the current system one refrigerator may be shown as consuming 1.5 kWh per day while another consumes 2.5. When shown in this way difference appears to be marginal. In reality however, the first machine consumes only 60% of the electricity consumed by the second machine. A similar form of presentation is used for washing machines and dishwashers, where the consumption is listed on a per load basis. Neither of these approaches provide the reader with a basis for understanding what the consumption statistics will mean in practice over the long term.

When it was listed, the information on refrigerators was such that, with a certain amount of calculation, one could usually work out a comparison of energy use from brand to brand. To take the example of refrigerators in

Norwegian catalogues, the majority of catalogues gave the energy consumption in kWh/24 hours. However, in one catalogue only a kWh statistic, with no time period was given. The reader was left to assume that it covered a 24 hour period. In two other catalogues the kWh/24 hours was given on a per 100 liter basis. Thus, for the Norwegian catalogues, there was no direct method of comparing the efficiency across brands. A compounding factor in efforts to compare consumption across brands was that information was not always given. For example, we found that about 10% of the catalogues which included refrigerators did not have consumption information.²

The consumption information on washing machines, dryers, ovens and dishwashers is presented in such a way that it was often impossible to compare information across brands. There are several different forms of consumption given for the different brands, there are various test conditions used to arrive at the consumption levels and the statistics which are used hid the long-term operating costs of the appliances. To illustrate the problems with testing conditions, the energy consumption information on dishwashers in some catalogues gives the energy consumption under the assumption that the machine is attached to a hot water heater. In other catalogues the temperature of water used in the machine was not specified, making it difficult for the reader to compare the actual consumption across brands. Overall, about 50% of the catalogues displaying dishwashers had some sort of consumption information. The information was quite often given only in tables in the rear of the catalogues, where it is relegated to the status of a "technical detail," not a sales argument.

The test basis was also mystified in the case of clothes dryers. It was often unclear whether or not the data was based on a full or a partial load. Another problem was that the centrifuge time was not always specified. In one case the test results were based on clothes which had been centrifuged at 1200 rpm for a non-specified period of time. About 40% of the catalogues containing information on dryers had no energy consumption information. As in the case of dishwashers, those catalogues which had energy information often listed it as a technical detail in the rear of the catalogue.

Our analysis has also shown that manufacturers often used energy efficiency in different ways in their marketing strategies in the various countries. For example, while some manufacturers gave fairly detailed energy use information in their Swedish sales literature, there is little or no information in their Finnish catalogues. In other cases there was fairly complete and comprehensive coverage in the Norwegian literature while its Danish material was not as comprehensive.

While there were not many catalogues which did a good job of presenting energy consumption information, a few stood out. They had some form of energy consumption information for all of the appliances examined in the brochures. In addition, these manufacturers often had discussions of energy efficiency and consumption data for longer periods of time. Other manufacturers gave far more limited information. In some cases only one in ten appliances had consumption information. The preponderance of appliances lay somewhere between these two extremes.

In a country by country analysis, Danish catalogues were the most thorough in their presentation of energy consumption information. More than 80% of the appliances in the catalogues had some form of consumption listed. It was somewhat surprising to find that the catalogues collected in Oslo had the second highest levels of consumption information, since the sales personnel and the customers there had the lowest levels of energy awareness among the cities we visited. Our analysis showed about 77% of the appliances shown in the catalogues from Oslo had some form of consumption information. Slightly less than 60% of the appliances in the Swedish catalogues had consumption information while only about 44% of the Finnish catalogues had similar information.

Given the poor and confusing information in the catalogues, it is perhaps not surprising that we found problems with the way that the literature was used in sales presentations. One problem is that the information in the catalogues is one of the few references that the sales personnel have when questions about appliances arise. Thus, sales literature is seen as an unimpeachable source of information on the consumption of appliances by the sales personnel, in spite of the many flaws in the data. Our analysis, however, indicates that this represents a misplaced trust in the validity of the data presented there.

Unfortunately, the problem may go beyond poor reference material. When one considers that a sales situation is an attempt to convince a person, facts can become elaborated and extended beyond their intended meaning. In this vein, we have experienced situations where sales personnel cited information on energy consumption from the catalogues which we were unable to find upon closer examination.³ This speaks to the need for standardization of testing practices and uniformity in the presentation of consumption information.

In summary, we found a lack of consistency among catalogues, a lack of information on, and variation in, testing standards, poor presentation of consumption material, differences in testing conditions, and in some cases,

inappropriate use of the catalogues by the sales representatives. In addition, the catalogues minimize the importance of energy consumption by treating it as a technical detail rather than as a sales argument. These issues make it difficult for an individual, particularly those of us who are not technically educated, to compare the electrical consumption and life costs of the various machines on the market. These problems also reduce the likelihood that energy efficiency will play a role in the purchase decision.

The Customer

The sales training and the catalogues are structured in order to satisfy the perceived information needs of the customer. But who are the customers, and what are their interests? In order to determine customer's interest in energy efficiency we asked sales personnel for their assessments of customer interest. We also interviewed customers. We asked both groups which aspects of appliances were of particular interest to the customers, and how energy efficiency fit into the customer's purchase decisions. In addition, we gathered information on what the customer decision making process entails in order to understand the interaction between the sales personnel and the customers.

The Customer as Seen by the Sales Personnel

While interest in energy efficiency among customers varies from place to place, it is fair to say that according to the sales personnel it is not a very important factor in the decision making process in any of the cities we visited. According to the sales representatives we interviewed, price was the most important characteristic of the appliances in the eyes of their customers. In most cases energy efficiency was only a minor factor, rated far behind such issues as price, quality, size, brand, and features. The case of Oslo stands out here due to the extremely low interest in energy use. On the average, the sales representatives estimated that about one in ten customers asked about energy use. Customers in Helsinki and Stockholm displayed slightly more interest. We were told that about 30-40% of the customers request information on energy efficiency. The highest levels of interest were displayed in Copenhagen. According to the sales representatives there, energy use was seen as having a more important role in the decision making process. About 80% of the customers were interested in finding out about energy efficiency. The higher levels of interest in Denmark may be partially the result of higher electricity prices.⁴

Results from the Customer Interviews

Energy efficiency was also given a low priority by the customers whom we interviewed. In most cases it was only a minor consideration behind such issues as quality, size, brand, price and features. Many customers did not even mention energy efficiency as a factor of interest. The following quotes from two customers illustrate the low priority which energy use has in the decision making process.

Interviewer: Is energy use (in a freezer) important for you?

Customer #1: I have not thought about that.

Interviewer: Is it easy to find out about energy use in the different freezers?

Customer #1: I have not thought about that.

The comments of the second interviewee reflect the same ideas

Interviewer: Are there different brands of washing machines which use less electricity than others?

Customer #2: No, I do not think so. That is not what one thinks about or gives the most emphasis to.

Size and features were the characteristics which were of importance to customers. These priorities roughly reflect the findings of Dyer and Maroni (1988) in their analysis of labeling in the U.S. and ANOP (1985, 6) in their analysis of the Australian market. It is interesting to note that price, which was highest on the list of the sales personnel's perceptions of their customer's interest, was not as important to the customers themselves. One must interpret this result with the sales/purchase process in mind. A better understanding of this process also shows that if energy efficiency is to have saliency in the sales process, it needs to be introduced early in the process (de Looor and Zeelenberg 1991; see also Verplanken 1990 and Bettman 1979).

According to the customers and the sales personnel with whom we spoke, this sales process has several different stages. This is illustrated in this discussion with a male customer in a busy downtown store in Copenhagen who had recently bought a washing machine.

Respondent: We went around, my wife and I, and collected information and catalogues and then we discussed what we wanted.

Interviewer: So it was 'Not that one or that one but perhaps these here.'

Respondent: Yea, we reduced it down to two or three machines and agreed that if we had enough money we will take that one, or the next best one in our price range. You have to be sure of what you are paying for.

Interviewer: So the first round was to eliminate that which you didn't want.

Respondent: We wanted to stay away from the low price machines. In the same way we could eliminate the high price machines. So, we found a level that we could live with.

Interviewer: The first round was price, and after you had found the price....

Respondent: No, the first thing we agreed on was that we will have a solid machine. That was important.

Another woman, who was in the early stages of shopping for an oven, described the process as follows:

Respondent: At this point I am just looking at the size, the models available and what they cost. I will take the literature home and look at it more carefully.

These customers indicated that they were going through an extended version of the purchase process involving a period of needs definition, collection of information on appliance features and price, decision making and finally bargaining. Neither of these customers were bound by either brand loyalty or acute need which might well have shortened the process.

In both cases, at the outset of the process, price was a criteria which bracketed the appliances in which they were interested. Other characteristics were then weighed and considered during the information collection phase. In the first case cited above, after the man and his wife had arrived at a short list of potential models, price again began to become more and more important. Since it is at the point when the customer begins to seriously consider price that they have their most intense interaction with the sales personnel, it is not surprising that there is a different estimation of the importance of price in the sales process. In addition, it is worth noting that in neither case was there a particular concern for the role of energy efficiency present during the early information gathering stage of the process, where it could have played a stronger role in the decision process.

Strengthening the Role of Energy Efficiency

Improve the Information Available in the Stores

Based on our analysis, there are several approaches that one can use to give energy efficiency a higher profile in the sales process. The most obvious of these is energy labeling and a more prominent use of efficiency information in the sales literature. In addition, one can consider improving the training of sales personnel and targeting information to market segments. In this section we will review these possibilities

Improvements to Sales Catalogues. In a previous section we have analyzed the contents of the sales literature. We found that the lack of data, the variation in the way that data was presented, the differences between the testing procedures for the various brands, the inappropriate use of the catalogues by the sales representatives and the marginalization of information on efficiency all contribute to the fact that the catalogues may confuse rather than enlighten the reader. These problems reduce the likelihood that energy efficiency will play a role in the purchase decision. These issues must be addressed before the sales literature can be seen as having a positive contribution to the reader's understanding of energy efficiency in household appliances.

In order to correct this situation the energy consumption information in the catalogues needs to be more comprehensive. Every major appliance should be required to have its consumption listed. In order to increase the comparability across brands, standardized testing procedures and standardized forms of data presentation should be developed. For example, the testing conditions for refrigerators should specify the inside and outside temperature which are required, the number of times the door is opened, etc. Finally, if there is truly an interest in increasing consciousness about energy efficiency issues, the consumption data should not be treated as a technical detail and relegated to the tables in the back of the catalogues.

Labeling: Its Perceived Benefits and Disadvantages.

An obvious method to increase the prominence of energy efficiency in the sales process is to include mandatory energy labeling on all appliances--though appliance labeling is being considered in the Nordic countries, it is not yet in place. This would introduce energy efficiency information into the sales process.

We asked the sales personnel for their opinions on labeling. Many thought that energy labeling would make it easier for them to do their work. On the negative side many thought that it would reduce the sales of the less expensive appliances.

To take up the positive responses first, many sales persons said that energy labeling of appliances would increase customer awareness of energy efficiency. In addition, they suggested that labeling would make their jobs easier by allowing them to avoid looking up consumption information in catalogues.

"The customers can read for themselves. It will make it easier for us."

"We can avoid looking it up in the catalogues and the customer can make up their own minds."

A slightly different version of their perspective was given by a sales person who suggested labeling would provide an absolute measure of comparison. This would make it easier to assess the differences between machines for both sales people and customers and it would eliminate the self-congratulatory statistics which the individual producers include in their sales literature. Another positive response, which comes from a sales person in Helsinki, was that the labeling system would help stores to sell more expensive appliances.

On the negative side, the most common argument against a labeling system was that consumption labels would cut into the sales of the less expensive and less efficient appliances. We met several sales people who use words to the effect that "[Labeling] will make it difficult to sell machines with the worst results."

A variation of this theme, which is perhaps more a rationalization than a valid concern, was that labeling will hurt the efforts of the developing and transforming economies since they are the producers of the less expensive, and less efficient appliances. One sales man said "Eastern European countries will suffer (since they can not sell their products)."

Another issue which we uncovered was a concern for the reputation of the store. A sales man in Finland noted that the labeling system could cause problems for the store if the efficiency of the appliance did not match the efficiency on the label. He thought that this might be a source of complaints.

There were several sales people who were quite skeptical to the idea of energy labeling. For example, some sales

personnel felt that the information is already there if people want to dig for it. Others questioned the validity of labeling. Some said that the labeling of, for example, refrigerators would be unreliable since they perform differently due to icing over their life time. We were also met with the arguments that efficiency does not matter because energy is cheap and that there are not big differences between the various machines. Finally, were told that labeling would cause resentment among customers since it would imply status differences between customers. As one sales man said--in a small leap of faith "People do not like to be classified by the label they buy." Many of these arguments illustrate a skepticism toward the potential of energy labeling. However, they also illustrate different aspects of the sales culture which has grown up around the sales of appliances that gives energy efficiency a low priority. Therefore, any serious attempt at labeling will require that these myths be eliminated.

Better Training in Energy Efficiency

Research has shown that customer interest in energy consumption is increased if there is emphasis placed on it by the sales personnel (Claxton and Anderson 1980). This effect will be lost, however, if sales personnel are skeptical to labeling. If this skepticism to be eliminated, there will have to be an effort by governmental authorities to inform both the sellers and the purchasers of appliances how the labeling system functions and how it will benefit them.

If the skepticism of the sales people is to be eliminated and if they are to adopt energy conservation into their sales arguments, they will need to have an understanding of how the testing takes place and how the system functions in order that they would be willing to invest legitimacy in the system. They will have to know, concretely, that the testing conditions give a fair and just comparison of the appliances. In addition, they will have to know that the statistics are reliably reported in the catalogues. If they carry the sense that the system is random in its assignment of consumption statistics, and that the testing does not take important factors into account, they will oppose its use and they will continue to minimize it, or avoid it in their sales presentations.

If misunderstandings of the testing procedures mean that the system does not enjoy the legitimacy of the sales personnel, then it is likely that arguments, which are either factual or fictional, will arise which debase the system and which will be used as sales arguments against the labeling.

Market Segments

As part of our analysis we were interested in finding out which types of customers the sales personnel thought were particularly open to energy efficiency arguments. This information can give policy makers insight into whom they can focus energy efficiency information on in order to maximize its effect.

According to the sales personnel, women have a disproportionate influence in the decision making process. According to both the sales personnel and the customers themselves, women are more active in the needs definition, information gathering and decision making stages of appliance purchases than men. This finding is in accordance with the findings of other studies (ANOP 1985; Hedges 1991, 40-44; Ling et al. 1991c). For example, a woman in Copenhagen said: "I get to decide on what I want. My husband is satisfied with it. If it is what I want, then I am allowed to get it (laugh)." According to the sales personnel and the customers, it is predominately women who gather information on the appliances and decide on which functions are important. As one sales person said, "Women decide more on the functions." In addition, women were seen to have a strong influence on the purchase decision. More than half of the sales personnel said that it was the women who made the final choice. As one sales person in Helsinki ironically stated "Men are afraid to decide by themselves."

The sales personnel said that male customers were reported to be concerned about budgetary and technical issues. A sales man in Helsinki said "The man only wants the price" and one in Stockholm said that "it is often the men who... decide on the price."

In terms of other groups of customers, about a third of the sales representatives said that younger customers were the most interested in energy efficiency, due to their environmental ideology. In addition, several sales people said that elderly "thrifty" shoppers were likely to be concerned with efficiency.

These findings give some insight into the division of labor as it relates to the purchase of appliances and the groups who have a stronger interest in energy efficiency issues.

Conclusion

In general, we have found that energy efficiency plays only a negligible role in the sales process. Energy efficiency had a low priority in the sales training and it has been marginalized in the sales literature. Energy efficiency was reported to be a minor characteristic which

is of little interest to the sales personnel or their clients. It did not have the status of being a sales argument. Because of this it was not being promoted in the same way that other "more salient" characteristics were.

In terms of comparisons between countries, the highest levels of interest in energy efficiency were in Copenhagen. The Danish sales personnel have access to better sales training, and their catalogues feature more energy consumption information. In addition, we noted that energy efficiency information was posted on many refrigerators in the Danish stores we visited. We did not observe the same practice in the Norwegian, Swedish or the Finnish stores. While there are many factors which account for this, Figure 2 shows that the higher levels of concern for energy efficiency probably result in lower consumption of electricity in Denmark.

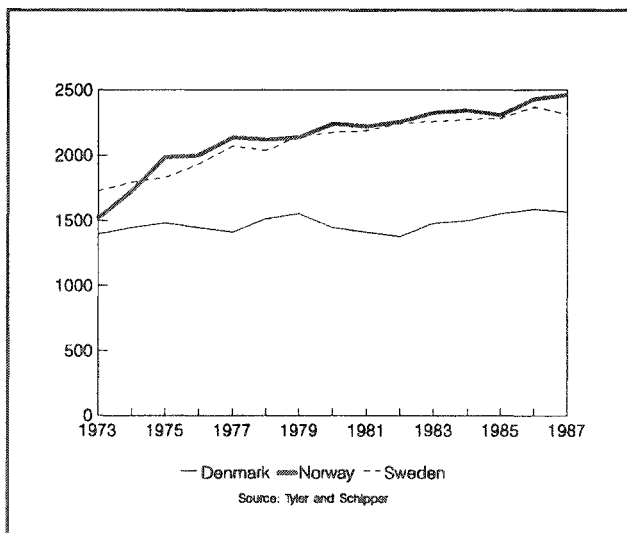


Figure 2. Appliance Electricity Use by Country, 1973-1987

The ideology which is beginning to develop in Denmark could be set in motion in other the other Nordic countries through the development of appliance labeling, better training for sales personnel and better presentation of energy consumption information in the sales literature. The example of Denmark points out that increased efforts such as improved sales literature and sales training could lead to more energy awareness in the sale of household appliances. There are many barriers which stand in the way to the successful implementation of energy labeling. However, by using well thought out measures, such as improved literature and better training, there is a great potential which can be realized.

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Endnotes

1. The appliances which were included in this analysis included refrigerators, ovens/ranges, dishwashers, clothes washers, and clothes dryers.
2. We have not done a specific analysis of combi-refrigerators or freezers. However, we have done a spot check and in every situation where there is an energy consumption analysis of refrigerators, there is a similar analysis for combi refrigerators and freezers.
3. For example, one sales representative in Finland said that the catalogue gave the consumption data for a 20 year-lifetime. Closer examination of the catalogue in question failed to turn up the information.
4. The statistics reported here may be somewhat inflated since the sales personnel may have been interested in indulging us. While there may have been such an effect, we assume that it was about as strong in each of the interviewing locations.

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