An Analysis of Western Europe’s Food Retailers’ Buying Behaviour

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Abstract

A study concerning food retailers’ buying behaviour is presented. A conjoint analysis has been conducted in 17 West European countries. The study encompasses the retail buyers’ buying behavior towards pork, fish and cheese products. The paper presents the background for the study, the outline of the study and segmentations of the retailers.

The Aim of the study

The aim of the study has been two-sided. Firstly, there has been a theory-focused approach i.e. one intention was to find a pattern in retailers’ buying behaviour towards different product groups, which, to a certain extent, is abstract and generalizable across buyers, companies, and countries. Secondly, a problem-focused approach has been pursued i.e. how is the actual buying behaviour of food retailers and how can knowledge about their buying behaviour be used by suppliers.

This paper is based on the theory-focused approach. The problem-focused approach is presented elsewhere (Skytte 1999).

The background for the study

For several decades a substantial amount of research on consumer buying behaviour (for an overview e.g. Solomon, Bamossy & Askegaard 1999) and also, to a lesser degree, for many years research on organisational buying behaviour (for an overview e.g Johnston & Lewin 1996) has been conducted. This research has provided a great deal of knowledge on these areas. Different from that not much research has been done on retail buying behaviour. To a certain degree it can be said that theory on organisational buying behaviour also has validity for retail buying behaviour, but as Sheth (1981) states the retailer is neither like a consumer nor like a producer, he is unique. In the eighties several authors (e.g Sheth 1981; McGoldrick & Douglas 1983) noted the lack of a conceptual model of retailer buying behaviour. Since then some analysis of the buying process as well as some work on a conceptualisation of retailer buying behaviour have been done (e.g. Cravens & Finn 1983; Nilsson & Host 1987; and McLaughlin & Rao 1990).

Outline of the study

In this paper eight main steps of the project is presented:
1. Review and integration of research on retailer buying behaviour.

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2. Informal discussions with food producers and trade buyers.

3. Qualitative studies to develop a comprehensive list of decision attributes.

4. Collection and analysis of secondary data in order to reveal the structure of the food retailing in the various countries and establish a list of potential respondents.

5. Development of a framework for analysing retail buying behaviour in various food sectors.

6. Data collection in seventeen countries.

7. Conjoint analysis of the collected data.

8. Segmentation of trade buyers.

Previous research

To establish a comprehensive platform for this study a literature review was conducted. Seven international marketing journals from 1975 to 1996 were reviewed. This gave a total of 71 references related to retailer buying behaviour.

The presented results in these papers were analysed and compared (Hansen & Skytte, 1998), and this work formed the platform for the subsequent steps in this study.

The review of previous research revealed that numerous lists of decision criteria had been generated. However, it was also learned that retailer buying behaviour is much embedded in the context so lists of criteria are of little use without knowledge of the factors that influence the different criteria. The scattered previous research findings suggest three broad types of factors that influence the decision criteria: retailer characteristics, buyer characteristics and product characteristics.

In continuation of the work mentioned above, the aim of this study was to reveal trade buyers’ buying behaviour in general, and in particular to uncover whether there are any differences between retail buying behaviour in various countries; in various retail chains with different formats; differences between the buying behaviour of retailer brands and manufacturer brands; and between trade buyers’ behaviour in various food departments (different products) in the chains.

Informal discussions with food producers and trade buyers

Based on the literature review, informal discussions with a number of food producers and trade buyers were conducted to improve the validity of the study. The interviewees were chosen from various food sectors. From the discussions it was learned which products and supplier attributes they considered important, but what was more important was that a trend was traced in what the trade buyers were looking for. This trend was reflected in the fact that quite a few buyers took several attributes for granted, for example a certain level of product quality and the suppliers’ ability to meet the agreed delivery schedules. The trade buyers were now looking for some additional product and supplier attributes.

Qualitative studies
To find the most salient attributes to use in the analysis, results from previous qualitative studies, in which we have been involved, were also used. These studies included a beef study in Great Britain, Germany, France and Spain; a milk study in Germany; and a study on Danish pastry conducted in Great Britain, Germany, and France. Altogether, more than 100 semi-structured face-to-face interviews with trade buyers were made in these three projects.

The main results from these studies were that the retail buyers stressed salient attributes not only in connection with the general four P’s, but also attributes in connection with suppliers and with traceability of the raw materials.

The complete results from the qualitative studies are reported elsewhere.

Potential respondents

To be able to analyse the trade buyers’ behaviour in the various countries the potential respondent companies had to be identified, and therefore collection and analysis of secondary data were conducted. The retail companies were described on the following variables:

1. Number of food retail organisations in the various countries.

2. The retail organisations’ format (Chain retailer, co-op, etc.).

3. Chain types under the various retail organisations (chains of supermarkets, chains of discount stores etc.).

4. Number of outlets under each chain. It was decided only to include chains with at least five outlets.

As a result of this work a list for each country comprising all food retailing companies was developed, and eventually a database of about 1,000 European food retail chains was established.

Framework for analysing retail buying behaviour

The information from the literature review and from the informal discussions with food producers and trade buyers was combined with the outcome of the qualitative studies. These three sources combined formed a framework for the analysis of retail buying behaviour in the various countries. In this framework it is presupposed that the buyers’ evaluation of the product and supplier attributes depends on different context or background variables.

The background variables which were found to be the most interesting from the three sources were the buyer’s nationality and characteristics of the buying organisation, the buying centre, the product, current suppliers and characteristics of the buyer.

The most salient attributes found in the three sources included attributes in connection with products, suppliers, traceability of raw materials, and different organisational patterns between suppliers and retailers. With the three sources in mind, it was not reasonable to reduce the number of attributes to less than 11 in order to describe the

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hypothetical offers. The attributes were given two or three levels each. The attributes chosen are listed below (for pork, not ranked):

1. Quality of product.
2. Product price.
3. Consistency of product quality from one delivery to the next.
4. Whether the supplier's product is developed on the basis of market information from consumers in the buyer's country.
5. Whether the producer can guarantee acceptable breeding and feeding conditions for the animals.
6. Whether the producer is able to supply sufficient quantities to meet the whole chain's demand for his products.
7. The level of the producer's support for advertising, and in-store promotion of the product.
8. The producer's ability to supply a broad range of cheese products.
9. Whether the producer is interested in developing a long-term relationship with the chain.
10. The producer's reputation among retailers.
11. Whether the producer is national or foreign.

In studies of the impact of various factors on trade buyers listing of new products/suppliers a broad spectrum of data collection methods could be used. At one extreme we find the realistic but time consuming mapping of all buying decisions made in a retail chain during a year (e.g. Rao & McLaughlin 1989). At the other extreme we find the one-shot interview, where the buyer is asked to weight the decision criteria on a five- or seven-point scale (e.g. Wall et al. 1994).

The first-mentioned method requires a close co-operation with the chain, and the number of chains will necessarily be very limited. While the last-mentioned method is easy to perform it is of course unrealistic and prone to after rationalisation and "acceptable" answers.

Conjoint analysis (e.g. Wagner et al. 1989) seems to be a sound compromise between the two extremes: it is much more realistic than the use of self-explicated weights, and at the same time opens up for using enough respondents to generalise the results. Besides, the use of an orthogonal experimental design avoids co-linearity problems.

It is assumed that the trade buyers are expressing the retail chain's buying policy of the particular food product category when they evaluate the conjoint cards. At the same time it is assumed that the intentions they are expressing when they mark how likely it is that they will buy the product from the vendor described on the cards, are the immediate determinant of their behaviour in connection with choice of products and suppliers. It is to say that their behaviour is under volitional control and thus predictable from intentions. According to Ajzen and Fishbein (1980) an important factor when evaluating the strength of the relationship between intention and behaviour is the degree of correspondence between the measure of intention and the behavioural criterion. To strengthen this relationship the trade buyers were asked to evaluate cards describing the

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type of products they bought ‘most of’ or ‘second most’. In that way they were only asked to evaluate product types with which they were very experienced. This should ensure that the measured intention, i.e. the measure of the indicated likelihood of making a purchase, will lead to a very accurate prediction of buying behaviour, at least at the aggregate segment level where the idiosyncratic events on the whole are assumed to balance out.

For each profile, the trade buyers were asked to indicate the likelihood of making a purchase of the product from the vendor described. In this connection it is important to realize that the evaluations take place in a comparison context. The trade buyers compare the product and supplier attributes with what they are buying at that point in time and in comparison with what they see of available products and suppliers. It is worth noting that the evaluation of the cards depends on the trade buyers’ decision environment i.e. the task environment interpreted by each trade buyer (Schommer 1995) and not on the suppliers’ assessment of competing products and suppliers. Therefore questions about the respondents’ current suppliers are included. The complete framework is shown in table 1.

Based on the literature review and the results from the qualitative studies we developed a number of hypotheses about the expected relationships between attributes and background variables.

Data collection

After reviewing the literature on conjoint analyses and after talking to buyers during the pre-test it became clear that 11 features on each card were too many to evaluate in one go.

<table>
<thead>
<tr>
<th>BACKGROUND VARIABLES</th>
<th>ATTRIBUTES</th>
<th>DEPENDENT VARIABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buyer’s nationality</td>
<td>Product quality</td>
<td>Product vendor evaluation:</td>
</tr>
<tr>
<td>Characteristics of the buying organisation</td>
<td>Price</td>
<td>How likely is it that you will buy this product from this supplier [based on the above information]</td>
</tr>
<tr>
<td>Characteristics of the buying centre</td>
<td>Consistency of product policy</td>
<td></td>
</tr>
<tr>
<td>Characteristics of the product</td>
<td>Market information</td>
<td></td>
</tr>
<tr>
<td>Characteristics of the current supplier</td>
<td>Traceability</td>
<td></td>
</tr>
<tr>
<td>Characteristics of the buyer</td>
<td>Sufficient quantities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Promotional activities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Product range</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Long-term oriented</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Supplier’s reputation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>National/foreign supplier</td>
<td></td>
</tr>
</tbody>
</table>

Table 1 Background variables and product/vendor attributes affecting the buying decision

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We suspected that it would produce information overload and lower the validity of the study. Therefore, we decided to develop two card designs with seven and six features respectively. Each card contained two overlapping bridging features, which were price and product quality. Two sets of cards each containing 17 cards, including hold out cards, were used. Each respondent had to evaluate all 34 profiles. On the front of the cards we asked the respondent to indicate which product he is thinking of when assessing the cards. The front for pork is shown in the appendix.

From our qualitative studies we know that in some chains a buying committee evaluates the suppliers’ offers, while in other chains there is only one single buyer for each product category who evaluates the offers. However, only asking the person in charge of buying fish and cheese for an evaluation of the cards is not seen as a major problem as the buying committee almost always follows his/her recommendations. According to McLaughlin and Rao (1991) the buying committee accepts about 90 pct. of the buyer’s recommendations.

Conjoint analysis: mapping the utilities

We decided to bridge the attributes quality and price because if one of these attributes were missing in a conjoint job, the respondent would most certainly use the included attribute as an indicator of the other one. If both were missing the respondent would base his evaluations on assumptions about the levels of these two attributes. Therefore, we had no other choice than to bridge on these two attributes. However, it turned out that for several respondents these two attributes played so little a role compared to some of the other attributes, that the estimated utilities could be considered the result of a random process, and therefore they did not correlate well between the two sets of cards.

This problem deserves special mention, as part of the reason for doing this project was that we thought that other attributes than the traditional four Ps were gaining in importance. It can be said that the failure of the two factors to bridge supported this hypothesis. However, from a technical point of view the randomness connected with the evaluation of the bridging factors was a problem.

This randomness showed up as very small differences in utility for the various levels of the attributes at the same time as people preferred high prices to low ones (for the same quality) and/or low quality to high quality (at the same price). In order to overcome this problem the utility functions were re-estimated by using a non-linear least squares optimisation algorithm, placing order restrictions on the various coefficients.

As you will see from table 1, the levels for most of the attributes are logically ordered, and consequently we placed order restrictions on all, but the following:

1. Support for promotion (perhaps this seems a little surprising, but the reason is given later).
2. Willingness to engage in long-time relationships.

As a respondent’s breaking of a natural order generally was connected with low weight on the attribute in question, this procedure will most certainly increase the predictive validity of the study.

Only 19 of the 1,132 returned questionnaires were not bridged because lack of variation in the utilities of the bridging factors. We decided however to use only bridged questionnaires, where:

1. R squared (between observed and predicted utility for a concept) was greater the 0.30 for both sets of cards.

2. The correlation between the evaluations of the bridging attributes in both sets of cards was greater than 0.30.

3. The average ratio between the utility for the same attribute levels for the bridging attributes was in the interval 0.3 to 3.0.

One could argue, that these conditions are too restrictive and in fact they reduced the number of “successful” bridgings to 669 compared with the 1,132 returned questionnaires. It must, however, be emphasized that an analysis of the connection between the background variables and the evaluation of the crucial attributes does not necessitate a bridging, but can be performed on the separate card sets. Such an analysis can be based on about 1,100 questionnaires fulfilling the first restriction (a loss of less than 3 pct.). So we see that the problems is not with the original conjoint jobs, but alone with bridging. And we will try comfort ourselves by keeping in mind that the relative failure of the bridging supports our point, that quality and price are indeed loosing relative importance as decision criteria.

The utility functions in table 2 look remarkably alike. The most striking differences being that:

1. Traceability seems to play a larger role for pork than for the two other products, probably because “green thinking” originated around agricultural products, which still make up the majority of “green products.”

2. Sufficient quantities seem less important for pork than for the other two products. One explanation could be that it is easier to make pork from different sources look similar in the cold counter than it would be to do so with fish and cheese, and branded products plays a smaller role for pork than for the two other products.

3. The tendency to prefer making business with suppliers in one’s own country seems to play the largest role for pork and the smallest for cheese, fish coming in-between. Perhaps the local kitchen plays the largest role with the main course of the meal – such as meat – a lesser role with the first course – e.g. fish – and the least with delicatessen such as cheese and the like.

Also observe that while the crucial factor in the case of pork is whether the supplier is a national of the buyer’s country, in the case of cheese it is whether the supplier is represented in the country –fish again falling in between these two extremes.

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<table>
<thead>
<tr>
<th>Quality of product</th>
<th>PORK</th>
<th>FISH</th>
<th>CHEESE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rl=12</td>
<td>average average premium</td>
<td>Rl=13</td>
<td>average average premium</td>
</tr>
<tr>
<td>-0.74</td>
<td>0.08</td>
<td>0.65</td>
<td>-0.84</td>
</tr>
<tr>
<td>Product price</td>
<td>Rl=9</td>
<td>-0.11</td>
<td>(vector)</td>
</tr>
<tr>
<td>Consistency</td>
<td>Rl=6</td>
<td>average superior</td>
<td>Rl=6</td>
</tr>
<tr>
<td>-0.34</td>
<td>0.34</td>
<td>-0.34</td>
<td>0.34</td>
</tr>
<tr>
<td>Market information</td>
<td>Rl=6</td>
<td>no yes</td>
<td>Rl=6</td>
</tr>
<tr>
<td>-0.35</td>
<td>0.35</td>
<td>-0.34</td>
<td>0.34</td>
</tr>
<tr>
<td>Traceability</td>
<td>Rl=14</td>
<td>no yes</td>
<td>Rl=11</td>
</tr>
<tr>
<td>-0.82</td>
<td>0.82</td>
<td>-0.65</td>
<td>0.65</td>
</tr>
<tr>
<td>Sufficient quantities</td>
<td>Rl=13</td>
<td>no yes</td>
<td>Rl=16</td>
</tr>
<tr>
<td>-0.80</td>
<td>0.80</td>
<td>-0.93</td>
<td>0.93</td>
</tr>
<tr>
<td>Promotion</td>
<td>Rl=2</td>
<td>average superior</td>
<td>Rl=2</td>
</tr>
<tr>
<td>-0.12</td>
<td>0.12</td>
<td>-0.10</td>
<td>0.10</td>
</tr>
<tr>
<td>Wide range</td>
<td>Rl=4</td>
<td>average superior</td>
<td>Rl=5</td>
</tr>
<tr>
<td>-0.24</td>
<td>0.24</td>
<td>-0.30</td>
<td>0.30</td>
</tr>
<tr>
<td>Long-term relationship</td>
<td>Rl=16</td>
<td>no yes</td>
<td>Rl=17</td>
</tr>
<tr>
<td>-0.93</td>
<td>0.93</td>
<td>-1.02</td>
<td>1.02</td>
</tr>
<tr>
<td>Reputation</td>
<td>Rl=6</td>
<td>average superior</td>
<td>Rl=6</td>
</tr>
<tr>
<td>-0.34</td>
<td>0.34</td>
<td>-0.37</td>
<td>0.37</td>
</tr>
<tr>
<td>National/foreign</td>
<td>Rl=13</td>
<td>foreign without sales office</td>
<td>Rl=10</td>
</tr>
<tr>
<td>foreign without sales office</td>
<td>foreign with sales office</td>
<td>National with sales office</td>
<td>National with sales office</td>
</tr>
<tr>
<td>-0.67</td>
<td>-0.24</td>
<td>0.91</td>
<td>-0.63</td>
</tr>
</tbody>
</table>

Table 2 Average utility functions
Apart from these differences, the picture is one of similarity between the three products:

1. In general the three factors “traceability”, “sufficient quantities”, and “long-term relationship” play a larger role than the traditional three P’s. For pork and fish the a-fore-mentioned preference for making business with a supplier in one’s own country is also very eye-catching.

2. Among the three P’s that of promotion is by and large negligible. From our interviews we know that many retailers prefer to run this activity with as little interference from the supplier as possible.

3. As far as price and quality is concerned, we do not think that the rather modest role these two traditional factors seem to play in the buyers’ listing decisions is a true picture of their influence. Rather there are perhaps certain standards that the supplier should live up to in order to be taken into consideration – standards which are taken for granted by the buyer as well as the seller.

4. However, it should be kept in mind that the relative influence of quality and price on the buying decision (provided they are up to the general standards) is even smaller than that reported in the table. Remember that about one third of the conjoint jobs could not be satisfactorily bridged due to small weight placed on these two attributes.

5. Also other more traditional factors such as consistency, market information, and product range has very little influence.

The conclusion is: The traditional product and supplier attributes, which are given less weight, cannot be neglected. As a supplier you have to live up to certain standards in order to be taken into consideration by the buyer. But you cannot use these attributes to differentiate yourself from your competitors. As means for differentiation and preference you have to use the attributes mentioned in item 1 above – and perhaps establish a sales office in the buyer’s country.

As an average is only an average, the next question is: Are these new tendencies evenly spread among the buyers in the market, or are they confined to special segments of the market? If so, how do the various attributes combine as decision criteria in the various segments? And what sort of buyers are we likely to find in the various segments?

As the attributes with the largest spread are exactly the attributes with largest relative importance, these are the factors, which could be expected to define the various segments.

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A cluster analysis based on the utility functions using Ward's algorithm, resulted in four clusters for pork and cheese and five for fish. Table 2 shows the median relative importance in the various segments. We use median instead of mean in the description of the segments, as the distributions of relative importance are rather skew.

Taking a look across the various segments in the table, it is striking that some factors, which should have importance – at least in some segments of the market – seem to be of minimal importance in all segments. We have mentioned promotion above, but the same goes for consistency, market information, ability to deliver a wide range of products, and the suppliers' reputation.

Now, looking at the segments for fish, we see that the largest segment – segment 2 – is the more “traditional” segment, which lays relatively heavier weight on quality and price than the other segments. In addition, sufficient quantities and to a lesser degree “national/foreign” are the most important factors.

<table>
<thead>
<tr>
<th>Product</th>
<th>Fish</th>
<th>Cheese</th>
<th>Pork</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Segment size in pct</td>
<td>2%</td>
<td>37%</td>
<td>25%</td>
</tr>
<tr>
<td>Quality of product</td>
<td>6</td>
<td>13</td>
<td>9</td>
</tr>
<tr>
<td>Product price</td>
<td>3</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>Consistency</td>
<td>2</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Market information</td>
<td>4</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Traceability</td>
<td>3</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Sufficient quantities</td>
<td>10</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>Promotion</td>
<td>3</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Wide range</td>
<td>5</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Long-term relations</td>
<td>39</td>
<td>9</td>
<td>22</td>
</tr>
<tr>
<td>Reputuation</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>National/foreign</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Median number of outlets per chain</td>
<td>11</td>
<td>33</td>
<td>82</td>
</tr>
</tbody>
</table>

Table 3 Relative importance of attributes: median RI per segment in pct.

From this segment, the other segments differ in various ways:

**Segment 1** lays heavy weight on the suppliers’ willingness to enter into long-term relationship. About 40% of the weight are placed on this attribute, and this is about four times the weight of the second most important factors, sufficient quantities and the supplier’s presence in the country.

**Segment 3.** In this segment the willingness to engage in long-term relationship is the crucial factor, and the ability to deliver sufficient quantities is also important. These two factors taken together receive about 40% of the weight.

**Segment 4** is the “green segment”. About one quarter of the weight is placed on traceability, while “the ability to deliver sufficient quantities” quantities and “the willingness to engage in long-term relationship” each receive a weight of 15%. Taken together these three factors account for more than 50% of the decision-determining factors.

**Segment 5** is the “stay-at-home segment”, and could consequently be hard to reach for a foreign supplier.

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Now for the segmentation of cheese. We find that segment 1 has roughly the same profile as fish segment 2 – and the two segments are the largest in their respective markets. Segment 2 corresponds to fish segment 3 in that the supplier’s ability to deliver sufficient quantities to cover the need of the whole chain and his willingness to engage in long-term relationship are the most important criteria. Segment 3 corresponds to fish segment 4 in that traceability is the crucial factor. Finally segment 4 corresponds to fish segment 1 in that the crucial factor in this segment is the supplier’s willingness to engage in long-term relationship. There is no analogue to fish segment 5, the “stay-at-home segment” (c.f. the comments (item 3) to figure 2).

If we use the word “traditional” to designate chains, where most weight are placed on the traditional factors, such as quality, price and sufficient quantities, and less weight placed on “new” attributes such as “traceability” and “long-term”, we observe again a difference between the three products:

For fish and cheese, the traditional segments (segment 2 for fish and 1 for cheese) are the largest, and buyers who place heavy weight on the “new” attributes are found in smaller segments of the market.

For pork, however, traceability is a crucial factor for 1/2 of the chains i.e. the chains in segment 3 and this factor also is among the most important in segment 2, which comprises further 20 pct. of the market. Only 5 pct. of the market (segment 1) do not emphasise the “new” factors. In this segment the crucial factor is the presence of the seller in the buyer’s country – a factor which is also prominent in segments 2 and 4, and therefore is an important criteria in about half of the market.

Sufficient quantities is a crucial factor in segment 3, which comprise about half of the market, and the ability to engage in long-term-relationship is the criterion in segment 4 which comprise about 20 pct. of the market.

The next step is of course to find out what apart from the utility functions characterise firms in the various segments.

Who are in the segments?

Now, the variables influencing the utility function of the buyer could be grouped as follows:

5. Attributes characterising the organisation of the chain:
   chain retailer, co-ops etc. and number of outlets.

6. The face of the chain as seen from the customers:
   department store, supermarket, discounts etc.

7. What is being bought: own label, manufacturers brand
   or no-name products? Fresh or chilled products? etc.

8. The organisation of the buying process: existence of
   buying centre, number of members, etc
9. Attributes of the buyer: education, experience, sex etc.

A detailed analysis of the influence of variables such as these is most effectively carried out based on individual observations, and the full set of (1,100) returned questionnaires.

However, a rough overview of the composition of the segments as far as the first three groups of background variables is concerned could perhaps be in order:

Let us first have a look at the fish segments. We called segment 2 the “traditional segment”, and looking at its composition, it still deserves this designation. The segment is dominated by small to medium seized chains (the median number of outlets being 33). Half of all co-ops are found in this segment and so are half of the discount chains and half of all delicatessen chains (the other half is in the “green” segment 4). Of the transactions making up this segment, roughly speaking, 10 pet. is for buying retail brands, 45 pet. for manufacturer’s brand and the same share for no-name products.

In segment 1, which place heavy weight on the suppliers willingness to enter into long-time relationship (more than 90 pet. of the buyers in this segment prefer to deal with a supplier who is willing to engage in long-time relationship), consists wholly of chain retailers. There is no fishmongers or delicatessen shops in this segment. The median size of the chains is 11 outlets, so the chains are rather small.

If the reader’s first thought is that the argument for preferring long-time relation with the buyer is the possibilities of working together on product development etc. one should expect this segment to be made up of large chains. However, one could also argue that the relatively limited recourses of a small chain would make it desirable to have a fixed supplier and thus minimising the cost involved in establishing new supplier relations. In fact a further analysis shows that the preference for suppliers who are willing to engage in long-time relationship is relatively independent of chain size, but the motives for such a preference is likely to vary.

In segment 3 the crucial factors is the suppliers willingness to engage in long-time relations and his ability to deliver sufficient quantities to fulfill the demand of the whole chain. In this segment we find the largest chains – the median number of outlets being 82. The segment is dominated by retail sponsored voluntary chains, of which more than half is found in this segment. As pointed out above the motives for preferring long-time relations with the supplier is most likely different from those of the smaller chains in segment 1. 25 pet. of the transactions are private brand buys, which is more than twice the proportion in the other segments.

In the “green” segment 4 we find more weight on own and producers’ brands, and very little use of unbranded products. There is an over-representation wholesale-sponsored voluntary chains (half of such chains are in this segment). The chains are generally small, the median size being 20 outlets.

In the small segment 5, where the only influential factor is the presence of the supplier in the buyer’s country, we find (as one would expect) the smallest chains. The median number of outlets is 9. The segment consists only of chain retailers, and there are no
fish mongers or delicatessen shops. 2/3 of the transactions covers no-name products and 1/3 manufacturer’s brand.

Turning now to the cheese segments, the “traditional” segment 1 consists of rather large chains (median size: 40 outlets) of which about 55 pet. are retail chains, very few wholesale sponsored voluntary chains and many delicatessen stores. Very few examples of buying for own brands are placed here. In this regard the segment are similar to the corresponding fish segment 2.

It is in Segment 2 where the crucial factor is the supplier’s ability to deliver quantities large enough to cover the need of the whole chain, that we find the largest chains. Not surprising, because the smaller chains would scarcely meet this problem. In other respects this segment does not seem to differentiate itself.

As was the case with the corresponding fish segment 4, the chains in the “green” segment 3 are small (the median number of outlets being 12), and very few transactions cover the buying of unbranded products.

In segment 4 we find the relatively small chains for which the crucial factor is the supplier’s willingness to enter into long-time relationship. Just as it was the case with the large chains in segment 2, but – as mentioned before – perhaps with other motives. Chain retailers selling no-name products dominate the segment.

And now for the pork!

It is eye-catching that the more “traditional” segments 1 and 2 are much smaller in the case of pork than cases of fish and cheese – and the size of the chains are smaller too: the median number of outlets being 9 and 28 respectively. It also deserves to be mentioned that apparently it is not enough for the supplier to be represented in the country – he has to be a national of the country.

In segment 1 we find 70 pet. retail chains, 10 pet. co-ops. And 20 pet. wholesale-sponsored voluntary chains. In segment 2 these are supplemented by about 15 pet. retail-sponsored voluntary chains (which is 40 pet. of this type of chains; the remaining 60 pet. is located in segment 3) and a lesser use of own brands.

In segment 3 the chains are larger (median number of outlets 35) and perhaps as a consequence we find larger weight placed on the supplier’s ability to cover the demands of the whole of the chain. As mentioned above we find about 60 pet. of the whole-sale-sponsored voluntary chains in this segment, where they make up 20 pet. of the total number of chains.

In segment 4 where the median number of outlets is 41, we find the very big chains with thousands of outlets. As in segment 1 there are no retail sponsored voluntary chains. Nearly 60 pet. Of the transactions cover no-name products, which is more than in any other segment, and the pork is almost 100% bought fresh (as in segment 2).

Further research

in McLoughlin, Damien. and C. Horan (eds.), Proceedings of The 15th Annual IMP Conference, University College, Dublin 1999
The next step is, of course, to include all the context variables in the analysis. One could perform such an analysis by mapping the connections between background variables and cluster membership. This would of course be inefficient for two reasons:

1. The use of cluster identity grades down the utility measures to nominal data so only very crude results would emerge.

2. The analysis can only be based on two thirds of the received questionnaires.

It would be much more efficient to base the analysis on the separate card sets, as this – with a loss of only 3 pct. – would give us a little more than 1,100 usable questionnaires.

As some data (the various conjoint evaluations) vary within the respondent, while other are measured at respondent or organisation level, the analysis will be based on a multi-level model. In such a model the parameters at the lowest level (the utilities) are dependent upon variables at the higher level. We therefore plan to use the new version 6 of EQS, which includes routines for dealing with this sort of models. The programme is delayed but should be out by the time of the conference. It would perhaps also be worthwhile comparing the use of Bretton-Clarks bridging programme used to obtain the results presented in this paper with letting EQS do the bridging. Even if I suspect that a possible gain in precision and number of “successful” bridgings would be marginal, this approach seems theoretically sounder.

References


APPENDIX

EUROPEAN RETAIL CHAINS' BUYING OF PORK

THIS RESEARCH PROJECT IS CONDUCTED FOR THE MAPP CENTRE AT THE AARHUS SCHOOL OF BUSINESS, DENMARK

We are analysing retailers' buying behaviour in a number of European countries and the main purposes of the project are to identify criteria used in product and supplier selection by retail buyers and to compare selection decisions across countries.

Below you will find cards, which describe various potential aspects of a producer and his product. The cards give various attribute levels of the producer and product.

Based on these descriptions, and your general knowledge of pork and pork suppliers, please assess your expectation of how likely it is that you would buy pork from these producers if your company needed a new pork supplier.

Please indicate your assessment of each description on the scale below each card.

Assessing the cards, please circle the product you are in the market for:

Product positioning
1 Own label/Retailer brand/Private brand
2 Manufacturer brand/Brand
3 No name/Generic product

Product category
1 Half carcasses of pork
2 Wholesale boxes of pork (bulk packed)
3 Processed pork for slicing
4 Pre-packed pork for self-service (retail packed)
5 Other (please specify): _______________________________

Product type:
1 Fresh
2 Chilled
3 Frozen
4 Canned
5 Smoked
6 Other (please specify): _______________________________