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Consumer behaviour in agricultural direct marketing

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Abstract

Scandals in the food production industry have caused an uncertainty about quality and innocuousness of food for many consumers. This resulted in a strong risk perception of consumers at the point of sale. The direct marketing of products by farmers can be an important way to strengthen consumer confidence. In this contribution, buying behaviour is examined by an observation and a following interview. We develop an econometric model about the number of bought products and the proposition of marketing strategies which can be recommended to farmers involved in direct marketing.

Keywords: Consumer behaviour, direct marketing, observation, econometric model

1 Introduction

Scandals in the food production industry like the BSE crisis in 2000 have caused an uncertainty about quality and innocuousness of food for many consumers. Thus it came to a strong risk perception of the consumers at the point of purchase. (von Alvensleben 1999). In addition, globalisation increasingly complicates the overview for the consumers in the jungle of goods and information. The direct marketing of products by farmers can be an important way to strengthen consumer confidence. The less marketing steps there are between producer and consumer, the easier it is to pursue how, where and under which conditions a product was produced. Besides, direct marketing strengthens agriculture and helps the farmers to run their companies. To strengthen this distribution channel, it is important to promote the direct marketers by intensive research efforts. Considering the strong market position of the established food retail trade, especially measures in the area of marketing are to be supported.

Up to now, the research of agricultural direct marketing has pursued two different methodical attempts: A normative consideration way, which views the marketing way primarily under economic points (Huck 2000). Secondly, interviews were carried out in the sphere of direct marketing (Wirthgen & Maurer 2000; Zenner 2004) to recognize psychological as well as economic characteristic features of this marketing way. Present works about consumer behaviour in agricultural direct marketing are very top-heavy. This work performs a contribution which focuses on the empirically observed behaviour of the farm store buyers and moves the consumer in the centre of the analysis.

2 Methods

The interviews and the observation were carried out between October 06th, 2004 and August 26th, 2005. The data were collected in 22 different farm stores in Northern Germany. The farms were selected according to several criteria: they had to have a farm store in which also vegetables were sold. This farm store had to have regulated opening times during different days. Besides, the direct marketer had to have a positive attitude towards the observation and the interviews. Finally, only 20 farm stores were evaluated because two farm stores took a special position and were ignored. The farms to which the stores were attached were operated conventionally in eight cases and organically in twelve cases. Altogether, 410 interviews and observations were included in the evaluation. The data were compared to the observation and were evaluated with SPSS, EViews and Excel.

2.1 Observation

The present work rests on a structured, participant-concealed, personal foreign observation under natural conditions. The test persons were observed from entrance of the farm. Their purchase in the farm store was taken down by an observer. Because it was not possible to write down all aspects during the purchase process, it was paid attention especially to the choice of products, the conversations of the customer and the straightness of the movement direction. After the purchase the customers were asked to take part in an interview. Only those observations were included in the evaluation which also had the matching questionnaire.

2.2 Interview

In this work the farm store customers were interviewed with a standardised questionnaire after the observation. The purchase intensity, the distance of the store to their home or working place, settings to the marketing way and the products, the marketing of the direct marketers and socio- demographical information of the customers were recorded.

3 Socio- economic data of the respondents

77 % of the respondents were female, 23 % male. Other studies about food consumption had similar gender shares (Müller & Hamm 2001; Schaer 2000). The youngest participant was 20 years old, the oldest 83. The Median of the test persons' age was 51 years. Compared to the general age structure in Germany, the group of young purchasers was underrepresented up to the age of 35 years. However, from an age of 36 years more customers in terms of percentage to the German population made purchases in the farm stores. From an age of 71 years, the age structures were similar. The oldest inhabitants of Germany were hardly represented in the farm stores. This age structure of the direct marketer customers resembles the age structure of other studies about direct marketing (Recke, Zenner, Wirthgen 2004).

Predominantly, the test persons lived in households with two persons (40.7%), followed by 3- and 4- person- households (in each case 19%). 13.7% of the probands were singles. The single- households were strongly underrepresented among the farm store customers. This could be due to the fact that people living in these households are out- of- house- eaters and rarely cook at home. Due to the low need of food purchases, the expenditure for a purchase in the farm store is not worthwhile (Löchte 1996). More test persons lived in more- person- households in comparison to the German population.

84.6% of the interviewees gave an answer regarding their monthly gross income. The answers were divided into six classes. The classes three (1500 - 2499 Euros) to six (more than 4500

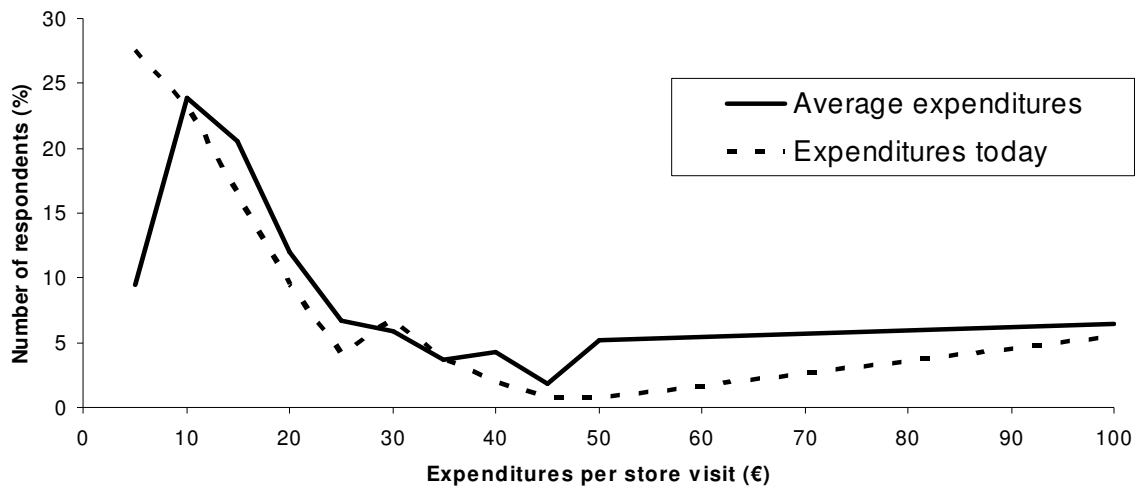
Euros) were represented with 15 to 19% of the answers. The second class (1000 - 1499 Euros) was chosen from 10.5% of the test persons, followed by the first class (up to 999 Euros) with 4.9%. The buyers of the conventional farm stores are to be found frequently in the second and the third income classes, those of the organic stores more often in the three highest salary steps. In the average the “organic customers” have an income of 4.15 from the abovementioned six income classes, or a Median of 5. The customers of the conventional stores have an average of 3.76 and a Median of 4. However, the averages could not be confirmed by a t test.

4 Results of the study

A together 43 percent of all interviewees did their journey only because of the purchase in the farm store. A low correlation exists between the variables of the distance to the farm store and the only reason for the journey. Those which lived farther away went significantly more seldom to the farm only because of the purchase in the store than those which lived closer to the store. 127 of the 410 test persons were accompanied by another person during the purchase. If you define a regular customer as a customer who buys in the same store at least once per week, 40 percent of the interviewees belonged to this group. This definition which is not clearly proved in the literature bases on spontaneous demarcations of direct marketers in a study by Hensche et al. (2007). The definition is put so close because all examined farm stores sold fruit and vegetables which are fresh and easily perishable products. These products are bought more often than storable products. Nearly three quarters of the questioned buyers used no shopping list for their purchase. The farm visit, as a criterion of the experience purchase, is often shown in the literature as a reason for the purchase at the direct marketer. In the present work only 14 percent of the test persons visited the farm area. From these 44.7 percent were in company of a child.

In the Median the interviewees spent 15 euros per purchase, the average was 22.83 euros. The answers had a very large span of 148 euros (minimum with 2 euros, maximum with 150 euros). 90 percent of the interviewees spent 50 euros at most. The last described question offers an interesting comparison to the observation: how many euros did the test persons really spent during the questioning day in the respective farm store (see illustration 1)? The average of the issues amounts to 15.42 euros. 90 percent of the interviewees spent less than 34 euros in the farm store during the questioning day, 75 percent up to 20 euros. Between the customers of the conventional and the organic farm stores a massive difference was being observed on the issues during the questioning day. In the conventional stores the buyers spent 9.09 euros on average; in the organic stores an average of 19.82 euros was paid.

Illustration 1: Expenditures in the farm store on average and at questioning day



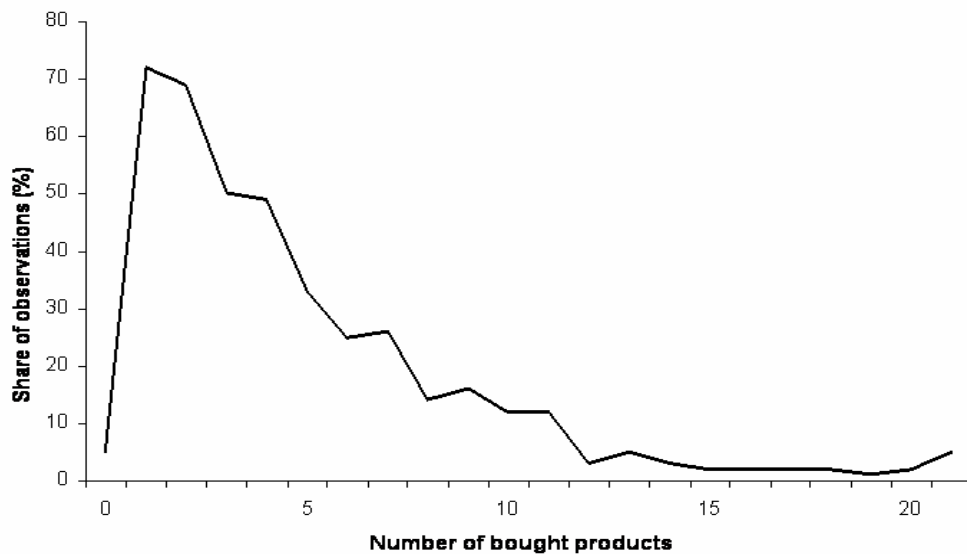
Questions: How many Euros do you spent on average per visit in this farm store?
 How many Euros did you spent in this farm store today?

Source: Own research 2005, n = 326

Looking at the difference between the average issues mentioned by the customer and the issues taken down by the observer during the day of the questioning, partly extreme differences appear in the negatives as well as in the positives. One fourth of the customers spent more money in the farm store during the day of the observation than in questioning given. Three fourth of the interviewees gave higher average issues per farm store visit than actual issues during the questioning day. Besides, the maximum lay with 87 euros.

Within the observation of the farm store customers the number of the bought products was recorded. With a number of 410 values a median value of 4 and an average of 4.91 bought products per test person resulted. As shown in illustration 2, many customers have bought one or two products. Then there is a clear slope. There are serious deviations referred to the number of bought products between organic and conventional customers. In the conventional farm stores 2.99 products on average were bought, in the organically producing farm stores 6.24 products.

Illustration 2: Number of bought products per customer and visit



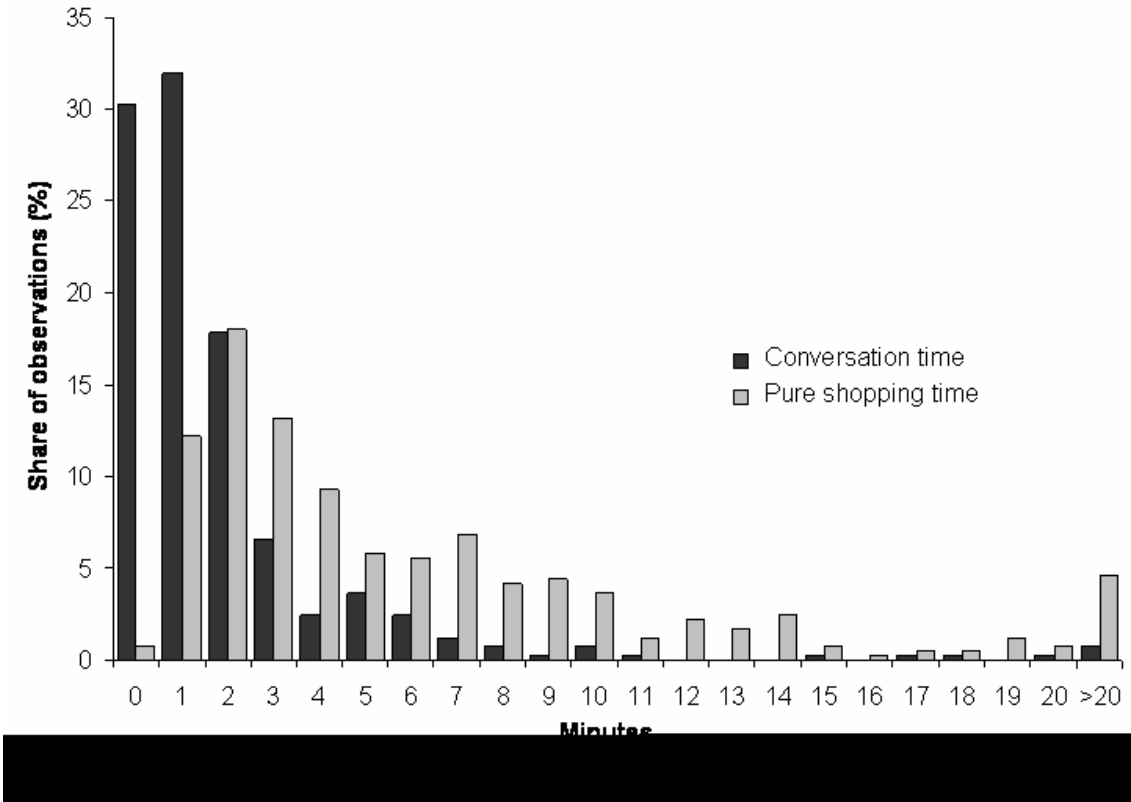
Source: Own research 2005, n = 405

During the purchase the customers were observed at their product choice and were divided into four different classes: In the first class are buyers who took products at random and laid in the shopping basket, so rather impulsive buyer. The next group forms from test persons who watched the products a little bit to take them then. These can be assigned best of all to the buyers by habit. The customers who compared two products to take one of it in the end, and customers who read the product description exactly, were divided into the third group, those of the limited purchase decision. The buyers who took sometimes one, then another product and could not decide were arranged in the fourth group, this of the extensive buyers. Following this pattern, 46 percent of the observed customers could be sorted into the second step, 28 percent in the first and 23 percent in the third one. Only six persons were integrated into the fourth step.

At the same time the duration of the visit in the farm store was noted. With a minimum of one minute and a maximum of 65 minutes a median of six and an average of 8.4 minutes arose. Just one third of the test persons stayed three minutes and shorter in the store, only approximately eleven percent of the test persons remained longer than 15 minutes. Simultaneously the conversation duration of the observed buyers with shop assistants, with companions and with other customers was observed. Indeed, the minimum lies at zero minutes and the average at 1.97 minutes, but the maximum with 44 minutes conversation during one purchase is rather high. After the settlement of the times of the visit in the farm store and the conversation duration the minimum of the pure shopping time is 0 minute. This means that the customer talked

constantly with somebody during the purchase or the buyer has ordered all products from the shop assistant and did not selected himself. The maximum of the pure shopping time is 50 minutes. In illustration 3 it is easy to see that the conversation duration amounts mainly up to five minutes, however, the pure shopping time is distributed widely. Conversation duration and pure shopping time prove together the visit duration of the customer in the store.

Illustration 3: Visit duration of the customers in the farm store, distributed into pure shopping time and conversation duration



Source: Own research 2005, n = 410

5 Discussion of the results

Because the results of this work are comparable with already existing studies of other authors (Kreller 2000), only the new variables of the present investigation will be discussed.

The fact that customers spend more money per purchase in organic farm stores than buyers in conventional ones is related to the fact that in these stores a higher number of products is bought. On the other hand, it could be supposed that products in organic stores are more expensive than in conventional stores. However, by calculation of the quotient from issues during the questioning day and number of bought products arises that a product costs 3.69 euros on average in the conventional store and 3.07 euros in the organic store. Therefore, the higher price for organic items does not apply at least in this work, although in the stores with organic

products often upscale products were bought. Customers to which the quality of the products is especially important did, in effect, not pay more for it. However, a low, but significant correlation could be determined between the income of the customers and the number of products bought.

A reason for the fact that in farm stores with organic products more articles per purchase are bought than in conventional stores could be the bigger offer. It is to be supposed that in organic farm stores beside the purchase of fruit, vegetables, meat and other often directly marketed products also food like biscuits, chocolate, coffee and tea and non-food-products as for example washing powder and detergents from organic production are bought. These products are seldom offered in supermarkets and are supplied via this alternative supply source.

Reasons for the overriding number of buyers who hardly pay attention to product descriptions or to condition of fruits could be a lack of time on the one hand, or, on the other hand, the certainty that they get a good quality in the farm store and don't have to pay attention to it. Moreover, it could be that they buy in the store so often that they exactly know which products of which brand they would like to buy. Besides, the familiarity with the products could influence the buying decision of the consumers positively. After different tests arose that customers, who purchase fast and straight, buy less products. Therefore, it can not be agreed to the assumption that the familiarity of the customers with the products has a positive influence on the purchase decision. Those which go fast and straight across the farm store could make purchases, perhaps, more often than others, but buy only few products with every purchase. That is why another variable was included who shows whether the test person is a regular or an opportunity customer. By a correlation it turns out that the group of the regular customers goes straighter across the farm stores than those of the opportunity customers. This confirms the previous hypothesis.

Given the statements in the literature, the result that only 14 percent of the test persons have looked at the farm area was astonishing. Tests whether the reason for this result could be the day of the week, the time of the day or the weather gave no result. A significant correlation of 0.474 proved an analysis of the attraction of the farm in comparison to the share of customers who had visited the farm in connection with their purchase in the farm store. The attraction of the farm was defined by the availability of a playground, the look of the farm itself, the cleanliness and the security of the farm area, the running of the company and the arrangement of the area with explanations. The more attractive the farm was, the more customers visited the farm area.

6 Explaining the number of bought products

The classical model images for the demand for food are based on the net income of the buyers, the product price and the population number. Nevertheless, these models deliver adequate results only as long as price and income count as the dominating regulation reasons of the demand. Especially in the case of direct marketing, other purchase reasons step into the foreground, which is why the classical models lose importance. They must be substituted by models which also show consideration to the buyer behaviour, the regulation reasons and other variables. Considerations that, for example, the attraction of the farm has an influence on the number of bought products, could not be proved significantly.

On the basis of the data, a model for the customer behaviour in the agricultural direct marketing, especially in farm stores, which is expressed by the number of bought products could be developed on the basis of a regression analysis. Of the dimensions of influence generally known from food retailing, for example the price appraisal by the customer or the income of the customer, had no influence in this model. Hence the number of bought products (*AP*) is calculated by the size of household (*HH*), the approach of the consumer to organic products (*Eco*), the use of a shopping list (*EZ*), the Sex of the consumer (*Sex*), the store period of the buyer (*VD*) and the facts whether the purchaser is a regular customer(*SK*), whether the visit of the farm store is his only reason for the trip (*EG*) and whether the store sells eco- products (*Eco*) (table 1).

Table 1: Results of the regression to explain the number of bought products

Variable	Coefficient	Standard error	Significance
Constant	0.519944	0.598402	0.385
HH (Number of people per household)	0.334534	0.124930	0.008
Eco (1 – very unimportant to 5 – very important)	0.235057	0.102087	0.022
EG (1 – yes; 0 – no)	0.470654	0.305584	0.124
EZ (1 – yes; 0 – no)	0.685744	0.372442	0.066
SK (1 – yes; 0 – no)	1.111092	0.294348	0.000
Sex	-0.823654	0.254776	0.001

<i>(0 – female, 1 – male)</i>			
VD (minutes)	0.276801	0.039831	0.000
ÖL (0 – organic; 1 – conventional)	-1.399925	0.289019	0.000

R² = 0.5281

Source: Own research

Because the visiting time of the customer in the store can be influenced by the operator of the store, it must be especially important from a marketing view. For this reason a separate model was developed for this variable with the conversation duration of the customers, the presence of an accompanying person, the straightness of the movement direction of the customer, the distance between farm store and customers home and the size of the farm store as variables.

7 Marketing strategies for direct-marketing farmers

The visit duration in the farm store influences the number of bought products and is increased by the conversation duration of the customer with the store staff or other customers. Therefore it is important that the service staff advises the customers competently and adapts to the different characters of the buyers. Interesting notices about news in the farm store, on the farm, in the village or in the closer surroundings provide for other topics of conversation. Regular events on the farm or in the store can promote acquaintances. By this the conversation duration of the customers during their everyday purchase can be increased again. It is important to see the farm store also as a social meeting place and to promote this by arrangements, notices and staff with good communication skills.

The visit in the farm store is extended significantly if the customer is accompanied. The farm store keeper can take care of the fact that the purchase is looked as an excursion by arrangement of the farm store and the surrounding. Thus the store keeper can provide a farm café or a special exhibition to motivate the customers to take their relatives and friends along to the purchase. For children it is important to have a playground and a look at the animals. For a purchase in the farm store, which becomes a meeting point for parents because of his child friendliness, parents also take a longer drive with their children.

Likewise the use of a shopping list has a positive influence on the developed model. To cause the customers writing a shopping list, the “classical” pinches can be applied: cash magazines with recipes are distributed free of charge, paper with cooking instructions are laid out in the store, on the Internet page of the farm store are cooking suggestions conformist to the season.

In addition, more unconventional measures to stimulate the customers to write a shopping list can be met: for example, every customer could receive a blank form for the shopping list of his next purchase together with the receipt.

To win a buyer as a regular customer, different levels must be considered. At first customers who already shop in the store, have to be convinced to visit more often. Therefore, the product quality must be good and the customer has to be contented. It is important that the expectations of the customers were already fulfilled with the first purchase. Only in this case the customer will probably visit the store again. A bigger security that the buyer will purchase again can get by more than expectation fulfilment. If the expectations of the consumer are excelled, he is inspired and would like to buy again anyway. However, the enthusiasm which was created becomes the base expectation of the customer sometime. The farm store operator must create always new enthusiasm factors to impress his customers.

In the store should be a good atmosphere. The customer would like to notice that he does not only carry out a purchase, but, besides, can relax and receive help if he needs. By product tests, friendliness, service and other additional achievements the purchase in the farm store becomes especially enjoyable. The customer must know that he can ask the staff any time. Besides, by this feeling the basis for an emotional connection of the customer to the store can be founded. On this base, actions can be organised by which the buyer gets to know the whole farm and the region and his emotional connection becomes stronger and stronger.

Above all, it is important in direct marketing that the customers trust the farm store operator and the products. This trust can originate from a lot of product and farm transparency. For example, a monthly farm newspaper in which topical subjects are published and the family of the farmer and their employees are introduced, could create this transparency. Contented employees are as important as contented customers, with an employee's connection a customer connection also walks along (Ploss 2001). The most important role comes up to the staff to provide the „company culture as well as credibility and competence of the shopping site“ (Fütterer 2001, p. 31). So the staff should identify with the farm store, be informed well and divide the basic opinions of the store operator. The farm store owner can make the work for the staff easier while doing reliable advertisement and honesty has priority. Thus the shop assistants represent the farm store with good conscience and believable.

If the customers are won as regular customers, they should be also rewarded for their loyalty. For example, bonus cards could be published. Special offers especially for regular buyers could be advertised. The customers could open a kind of account in the farm store on which they pay certain amounts over and over again and thereby get more favourable prices in the

store. For the farm store operator this would have the advantage that he would have a bigger financial security. The customers who have won new buyers by mouth to mouth propaganda could be rewarded by small presents.

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