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Quality, Safety and Consumer Behaviour Towards Organic Food

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QUALITY, SAFETY AND CONSUMER BEHAVIOUR TOWARDS ORGANIC FOOD IN GERMANY AND PORTUGAL

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ABSTRACT

The goal of this paper is to compare Portuguese and German consumer behaviour towards Organic Food Products (OFP). For this purpose, an extensive literature review on quality and food safety of organic food products was carried out and a consumer survey was implemented, with data collected by means of personal interviews in the capital cities of the two countries. The data was analysed using descriptive statistics and a comparison of Portuguese and German consumers was made with the help of chi-square tests and ANOVA. The results show positive consumer attitudes towards OFP. However, its consumption is much lower than could be expected from these attitudes. Intentions to buy OFP are quite high, suggesting that these products might obtain a substantial market share in the future. This is an encouraging sign for prospective producers of OFP, who might compensate the likely increase in unitary production costs with an increase in total production.

The study presented in this paper is the result of a research project supported by the programme “CRUP - Acções Integradas Luso Alemãs 2004” in Portugal and by the programme “Des Projektbezogenen Personenaustauschs (PPP) 2004 mit Portugal” in Germany.

Key-words: Organic food products, consumer behaviour, Germany, Portugal.

JEL Classification: M31, Q13, Q56, I12

1. INTRODUCTION

Due to increasing consumer dissatisfaction with conventional food and increasing environmental concerns about intensive production processes in the last few years, consumer behaviour towards organic products has attracted growing research attention.

Germany and Portugal are, respectively, the biggest and the smallest producers of OFP in Europe. In spite of the fast evolution of organic farming in Portugal in the last 10 years, there are still substantial differences between the two countries. In Germany, a bigger usable agricultural area is organically farmed and the proportion of agriculture companies working organically is considerably higher. In Portugal, the area organically cultivated is growing, with olive groves and cereals having the highest proportion of land. An increasing amount of organic foods is sold by food retailing in both countries but the assortment of organic products and their market share is higher in Germany than in Portugal (15% in Germany versus 2% in Portugal).

Four main factors may have contributed to the growth of the OFP markets in Portugal and Germany: 1) an increasing level of consumer knowledge about OFP, in parallel with increasing dissatisfaction with conventional food and environmental concerns; 2) higher levels of consumer trust in the organic origin and in the certification labels of the products; 3) increasing demand of OFP, especially due to the recent European food crisis and scandals; and 4) the involvement of big food retailers in OFP is another factor that can explain an increasing proportion of organic foods in the total amount of food consumption in both countries.

The present paper reports research carried out under a bilateral project of the University of Évora and the University of Humboldt. The aim of the research was to analyse the state of the art concerning the study of OFP and to compare the current status of consumer behaviour towards organic food in the Portuguese and the German markets. Additionally, the study analysed and compared consumer perceptions and evaluations of quality and safety in OFP, particularly in fruits, vegetables and meat.

The structure of the paper is as follows: the section that follows presents a literature review on the issues of quality, safety and consumer behaviour towards organic food products, after which a brief description of the survey method and some sample characteristics are provided; following this, the results of the analysis are presented. In the

final section, the more relevant conclusions of the study and some marketing recommendations are discussed.

2. LITERATURE REVIEW

Literature concerning research on organic food products was obtained from a number of different sources. The first source of information was research undertaken by national public bodies, stakeholder organizations and academic institutions, which included market research and academic research. A second source of information was the reports from government funded research. Finally, individual country contributions to EU-wide research projects also contained relevant material.

In literature, there are several studies comparing organically and conventionally produced food products. Different research methodologies such as market oriented supply studies, surveys, consumers sensory panels and cultivation tests have been applied to compare the two types of foodstuffs (e.g. Vetter et al, 1987; Finesilver, Johns and Hill, 1989; Lampkin, 1990; Woese, Lange, Boess, and Bögl, 1997; Saffron, 1998; Heaton, 2001; Bourn and Prescott, 2002; Williams, 2002; Toledo et al, 2002; AFSSA, 2003; Bruce and Lindskog, 2003). However, the results of research are ambiguous in what respects the eventual advantages of OFP. It is important to notice that the conclusions of the reviewed studies are hard to compare, partly because the number of samples for each crop was not large enough, partly because different methods were used in different studies. Additionally, so many factors play a role in determining the value for consumers of organic food products that it is often difficult to evaluate the importance of each of these factors.

Specifically concerning the quality of conventional products and OFP, Finesilver et al (1989), Woese et al (1997), Worthington (1998), BrunsØ and Grunert (2002) and Midmore et al (2005), review different studies. Despite difficulties in the compilation and generalization of results, some differences in quality between conventionally and organically produced foodstuffs were revealed. Other previous reviews, most notably Woese et al (1997), Worthington (1998 and 2001), Diver (2000), Brandt and Molgaard (2001) and Williams et al (2000) have been inconclusive or very cautious in their conclusions, pointing out the poor quality and wide variation in the evidence that organic food is better than conventional food.

Several studies have dealt with consumer attitudes towards OFP and, in a broader sense, towards safety and quality in food. Thompson (1998) provides a detailed review of U.S. research on consumer demand for organic farming and Midmore et al. (2005) do the same in a European context. Several studies concluded that the majority of consumers prefer OFP and have an increasing interest in it (Ekelund, 1989; Wilkins and Hillers, 1994; Wandel and Bugge, 1997; BrunsØ and Grunert, 2002). Consumers also have positive beliefs about OFP (Grankvist and Biel, 2001) and the image of OFP is generally positive, due to their perceived health value, safety and naturalness (Beharrell and Macfie, 1991; Tregear et al., 1994; Thompson and Kidwell, 1998; Gil et al., 2000; Bruhn, 2001; ZMP, 2001; ZMP, 2002; Zanolli and Nasppetti, 2002; Ricquart, 2004; Zanolli and Nasppetti, 2004; Spiller and Lüth, 2004; Lüth et al., 2005; Zanolli, 2005). Also Magnusson (2004) concluded that the most common beliefs associated with OFP are that they are 'more expensive' and 'healthier.'

Nevertheless, the proportion of regular purchases of OFP is low (Alvensleben, 1998; Grankvist and Biel, 2001; Grunert and Kristensen, 1995; Roddy et al., 1996; Wandel and Bugge, 1997). Also Magnusson (2004) found that, in spite of the positive attitudes towards OFP, only a few consumers purchase them regularly. Some studies revealed that these discrepancies between preferences and behaviour might be explained by the higher prices of OFP (Alvensleben and Altmann, 1987; Grunert and Kristensen, 1995; Jolly, 1991; Mathisson and Schollin, 1994; Roddy et al., 1996; Tregear et al., 1994) and by their limited availability (Jolly, 1991; Mathisson and Schollin, 1994; Roddy et al., 1996; Tregear et al., 1994; Wandel and Bugge, 1997). Consumer satisfaction with conventional foods can be another reason for the non-consumption of OFP (Ekelund, 1989; Mathisson and Schollin, 1994).

Williams et al. (2000) found that consumers believe that OFP have better sensory attributes. However, research involving a sensory panel of trained consumers recognized little taste advantage in OFP (Haglund, 1998). Nor did Jonsäll's (2000) study find any perceived sensory superiority in OFP. Johansson et al. (1999) concluded that the information that a product is organically produced induces consumers' preferences. However, it has also been found that there are no strong correlations between consumer positive beliefs about and the choice of OFP, and that the organic label is not a salient choice cue for all types of food products (Grankvist and Biel, 2001).

Wier et al. (2005) investigated the organic food markets in two European countries, Great Britain and Denmark, identifying their main differences and similarities. The focus was on consumer preferences and priorities, labelling schemes, and supply and sales channels as a basis for assessing market stability and prospects for future growth. Results showed that consumer confidence is sustained by organic labelling schemes and that organic food purchase decisions are primarily motivated by 'private good' attributes such as freshness, taste and health benefits. Attributes, such as environmental protection, animal welfare, small-scale production and local supply are less important for the majority of consumers.

Torjusen et al. (2001) studying the OFP decision-making process found that frequent buyers are more concerned with OFP characteristics, search for more information and think more about their choice than less frequent buyers. Regarding the motives for purchasing OFP, Schifferstein and Ophuis (1998) concluded that health is a more important motive for occasional consumers than for heavy consumers. Heavy consumers purchase OFP for health as well as environmental reasons. Magnusson (2004) concurred, stating that the consumer's decision -making for OFP is mostly based on the perceived consequences of OFP on human health and on the protection of the environment. However, in this study, perceived positive health consequences appeared to be a stronger motive for purchasing OFP than the environmental benefits.

Furthermore, the literature indicates a large group of occasional consumers who only buy small amounts of organic products per purchase. Several studies (ZMP, 2001; Enneking, 2003; Michels et al., 2003) compared these occasional consumers with heavy buyers and, particularly, with those who prefer to buy in organic food shops. Overall, these studies indicate that this consumer group largely corresponds to the average household with respect to socio-demographics as well as to dietary patterns. Nevertheless, the group can clearly be distinguished from customers of organic food shops (Michels et al., 2003).

Those studies revealed the following purchasing patterns of occasional buyers: 1) they are motivated more by hedonistic (i.e. taste) and health reasons, while regular buyers stress more the positive environmental effects associated with organic food production; 2) they show a clear preference for buying in supermarkets as opposed to buying in organic or health food shops; 3) they are less knowledgeable about OFP market characteristics such as certification labels, specific organic brands or appropriate shopping locations; 4) they

are generally younger than regular buyers; 5) when they buy OFP, they buy cereals, fruits and vegetables, while regular buyers predominantly choose organic dairy products or meat and; 6) they show less willingness to pay a price premium for OFP and show little knowledge about prices (overestimation of organic food prices) (ZMP, 2001; Enneking, 2003; Michels et al., 2003).

Finally, concerning the OFP perceived value; several studies may be referred to. Huang (1996) and Thompson and Kidwell (1998) analysed consumer preferences for organic farming in relation to their willingness to accept sensory defects and Van Ravenswaay and Blend (1999) discussed purchase probabilities and demand functions for regular, eco-labelled, and unlabelled apples. Some other studies assessed consumers' willingness to pay a price premium for organic or safe products (Weaver et al. 1992; Ott, 1990; Govindasamy and Italia, 1999; Underhill and Figueroa, 1996; Zanetti, 1998; Boland et al. 1999; Gil et al., 2000; Loureiro and Hine, 2002).

3. RESEARCH METHODS

To reach the defined goals for the study, the research had two phases: an initial qualitative, exploratory phase, followed by a quantitative survey implemented in Portugal and Germany. First, to obtain comprehensive information about the production and commercialization of organic food products and about actual consumption preferences, qualitative interviews with experts in the field were conducted. Information about quality and safety of OFP was also explored in these interviews. The interviewees were retail managers of organic food products and food researchers. The review of literature, together with the results of the exploratory study, allowed the design of the questionnaire to be applied to the consumer.

3.1. Questionnaire Design

The questionnaire was written in Portuguese and in German and included 25 main questions. The first four questions aimed at the construction of the sample. Then respondents were asked, using a Likert scale, about their beliefs relating to organic products, and using an importance scale, about the importance of different sources of information to the formation of those beliefs. Respondents were then asked about their

consumption behaviour relating to organic products in general, and to specific categories of products (e.g., milk and dairy, meat, fruits). The respondents who were buyers of organic products were asked about their buying patterns and about the importance of outlet and product attributes for their buying-decision. Additionally, the non-buyers were asked about the reasons for this particular behaviour.

Attitudes towards organic products were measured using two different Likert scales. The first scale, with 8 items, measured the attitudes indirectly, by examining attitudes towards consumers of organic products and the second scale, with 9 items, measured the attitudes directly related to organic products. After this, the non-consumers were asked about their intentions with regard to their future behaviour concerning organic products and their willingness to pay for different categories of organic food products.

In order to further characterize OFP consumers and the factors that may influence behaviour, respondents' attitudes to the environment were also measured using a Likert scale of 7 statements related with protection of the environment. Finally, the questionnaire included an additional 4 socio-demographic questions that allowed a more complete characterisation of the sample and the identification and profiling of consumer segments with different behaviours, attitudes and preferences relating to organic products.

Due to the extension and complexity of the questionnaire, the survey was conducted through face-to-face interviews with the support of show cards. The questionnaire was first pre-tested with a small number of food consumers and, after revision, on a wider scale. Forty questionnaires were applied in all age groups defined for the sample. The objective of the pre-test was to try out the questionnaire both with respondents and interviewers.

3.2. Sample

The information was collected through personal interviews during spring and summer of 2005; 419 interviews was conducted, of which 214 were in Lisbon and 205 in Berlin. The data was collected in Lisbon and Berlin since the area of the study had to be restricted and it was considered that in the two capital cities, which are the two main markets for OFP in each country, it would be possible to reach a wider range of respondents.

Therefore, the population under study was the Lisbon and Berlin residents, who conceded a certain amount of knowledge about organic products. A quota sampling procedure was implemented, with gender and age as control variables. Two separate samples were designed for Berlin and Lisbon (Table 1). Respondents from all the main districts in the two cities were included in the sample.

Table 1 – Berlin and Lisbon Samples: Age Group Distribution

Gender	Berlin					Lisbon				
	18-34	35-49	50-65	+ 65	Total	18-34	35-49	50-65	+ 65	Total
Male	27	32	25	15	99	35	26	25	15	100
Female	26	30	26	24	106	34	28	28	23	114
Total	53	62	51	39	205	69	54	53	38	214

4. EMPIRICAL RESULTS

The questionnaire data was coded and introduced in SPSS version 13. Three different databases were assembled: one for Lisbon respondents, one for Berlin respondents and a third that combined all the respondents. The data analysis consisted of descriptive statistics (frequencies, mean, and standard deviation) of all the variables measured in the questionnaires and a comparison of German and Portuguese consumers. Significant differences ($p < .05$) between the two countries were analysed with the help of cross-tabulations and chi-square tests for the nominal variables and ANOVA for the metric variables.

The Lisbon and Berlin respondents were found to be very different with regard to their knowledge, behaviour, attitudes and preferences relating to organic products. When the two groups of consumers were compared, significant differences at the 5% level of significance were found in 109 of the 155 variables under analysis (70.3%). If a 10% level of significance is admitted, this percentage rises to approximately 75%.

4.1 Socio-Demographic Profile

Concerning the socio-demographic profiles of the two groups of respondents, significant differences in gender and age were not found between the two cities, the frequencies of distribution of the different groups corresponding to the ones established in

the sample design. Additionally, there was no significant difference in the declared social class: 56% of Berlin respondents and 61% of Lisbon respondents stated that they were middle class and an additional 21% and 16%, respectively, of lower middle class.

However, significant differences between the respondents of the two cities were found in the declared household income, family size and level of education. With respect to the level of education, it can be said that in Berlin there is a much higher percentage of respondents with a craft certificate (bachelor degree) than in Lisbon, whereas in Lisbon there is a much higher percentage of respondents with only CSE or high school certificate. The figures clearly reflect the different education systems of the two countries and a slightly inferior level of formal education among the Lisbon respondents. It is also worth noting that 38% of respondents stated that they had a university degree. This percentage is far above the Portuguese average, which might be explained by two factors: firstly, in the capital the proportion of residents with a university degree is considerably higher than in the country as whole; secondly, it is only natural that people with higher levels of education have a greater knowledge of organic food products, a condition true of the population under study.

Respecting household income, the Lisbon respondents declared a higher net income (on average 1500€) than the Berlin respondents (on average, approximately, 1300€). However, because the Lisbon respondents live in significantly bigger households, the per capita income is, probably, not very different in the two samples.

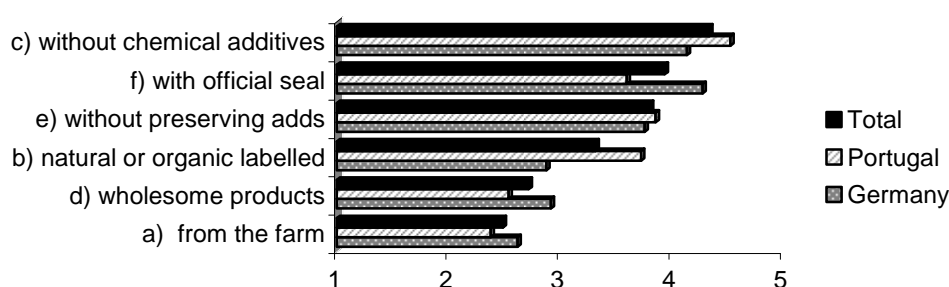
4.2 Knowledge about OFP

Concerning the declared knowledge about organic food products, significant differences were found between the two cities. The majority of respondents declared average knowledge about this type of product. However, this percentage is much higher in Lisbon (74.8%) than in Berlin (52.7%). Conversely, the percentage of respondents with a low declared knowledge of organic products is higher in Berlin (36.1%) than in Lisbon (17.3%). Yet, it is also in Berlin that a bigger proportion of respondents stated that they had considerable knowledge about organic products – 11.2% versus 7.9% in Lisbon.

Regarding the beliefs about organic products, respondents from the two cities show significant differences for five out of the six measured beliefs. For the whole sample, organic food products are, in decreasing order of importance: products without chemical

additives (mean 4.34); products with an official certificate (3.94); products without preserving additives (3.81); natural or organic labelled (3.32); wholesome products (2.72) and from the farm (2.49) (Figure 1). However, the Portuguese consumers tend to agree significantly more strongly than the Germans that organic products are products without chemical additives and are labelled natural or organic. On the other hand, German respondents associate organic products with an official seal more than do the Portuguese and disagree less strongly that organic products are produced in farms and are wholesome products.

Figure 1 – Beliefs Relating to Organic Food Products (mean scores)



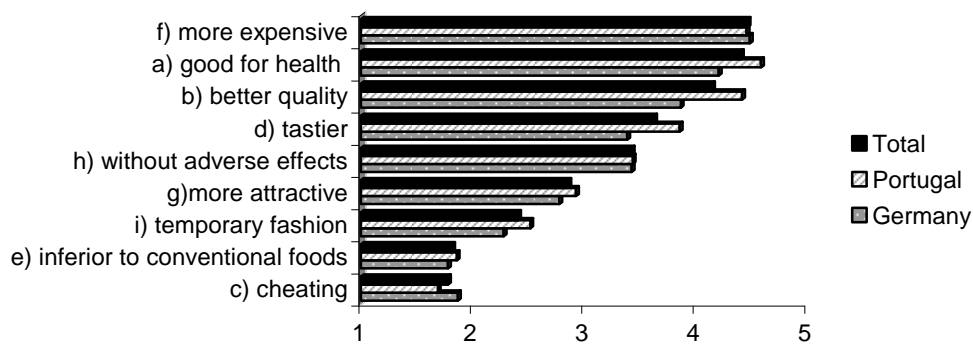
With respect to the importance of information sources for organic product knowledge, none of the listed sources was considered very important (all means were less than 4). Nevertheless, the experts (mean 3.56) are the most important source of information, followed by friends and family (3.19), advertisements and events (2.82) and information on outlets (2.72). Consequently, it can be concluded that the information sources out of the control of the firms are more important in building consumer beliefs than are the traditional marketing communication tools.

Once again, Portuguese and German consumers are significantly different in the importance they attach to the different information sources. Germans value relatively more than the Portuguese experts' opinions and point-of-sale information and the Portuguese find the information they get from advertising more important than do the Germans.

4.3 Attitudes towards OFP

Moving now to attitudes towards organic products (Figure 2), it can be said that respondents have a very positive attitude to this type of product. Respondents strongly agree that organic products are good for health (mean 4.41), that they are of better quality (4.15), tastier (3.63), and without adverse effects (3.43). People also tend to disagree with the negative statements about organic products. Respondents do not think that organic products are a fraud (mean 1.78), inferior to conventional foods (1.82), or a temporary fashion (2.41). However, they do think that they are more expensive (4.47) and less attractive than conventional foods (2.86).

Figure 2 – Attitudes Towards Organic Food Products (mean scores)



Additionally, respondents are of the opinion that consumers of organic products care about their health (mean 4.38), are demanding consumers (4.01), care about the environment (3.73) and are well informed consumers (3.68). People also think that consumers of organic food products have high incomes (3.48) but they tend to disagree that those consumers are led by a trend (2.85), do not tolerate conventional foods (2.73) or have health problems (2.85).

Portuguese and German consumers also showed significant differences in their attitudes towards organic food products and consumers. German consumers disagree more strongly than the Portuguese that organic products are a temporary fashion but they also judge the appearance of organic products worse than the Portuguese. On the other hand,

Portuguese consumers agree relatively more strongly than the Germans that organic food products are good for health, are of better quality, and are tastier. They also disagree more strongly than the Germans that organic food products are a fraud.

Moreover, Portuguese consumers tend to agree more strongly than the Germans that consumers of organic food products care about their health and are demanding and well informed consumers. Additionally, German respondents agree relatively more strongly than the Portuguese that organic food consumers have high incomes and do not tolerate conventional foods.

4.4 Consumption and Buying Behaviour

With respect to consumption and buying behaviour, it can be said that 83.9 % of respondents declared to have consumed organic food products. This percentage is significantly higher in Germany (89.3%) than in Portugal (79%). Moreover, the percentage of habitual consumers of organic food products is also significantly higher in Germany (27.4%) than in Portugal (20.1%). On the other hand, the Portuguese consumers of organic food products tend to state significantly more frequently than the Germans that there are other organic food consumers in their household (82.2% versus 67.4%).

On average, consumers of organic food products are not exclusive consumers, and a small proportion of the total amount of food consumption is organic (on average less than 25% of the food consumed is organic). This proportion is higher for fruits and vegetables, eggs and olive oil (more than 25% but less than 50%) and lower for rice, pasta and wine (less than 10%). Grain, bread, milk, dairy produce, honey, jam and poultry and other meats lie between these two extremes. The proportion of the Portuguese that declared consumption of organic fruits, vegetables, honey, jam, olive oil and wine is significantly higher than that of the Germans. However, German consumers eat significantly more organic grain, bread, rice, pasta, eggs, milk and dairy produce than the Portuguese.

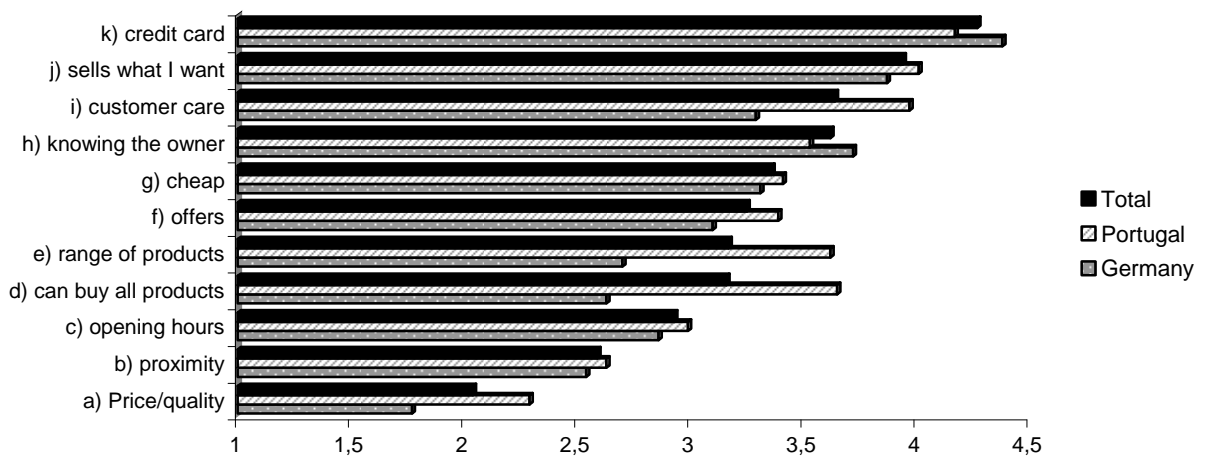
Approximately 76% of the respondents stated that they bought organic food products. Again, this proportion is significantly higher in Germany (87%) than in Portugal (66%). On average, buyers spend less than 50€ per month on organic food products. German buyers spend significantly more money on organic food products than Portuguese buyers, but still, on average, the amount spent is less than 50€ per month.

The majority of respondents buy organic food products in speciality shops (52% of the buyers), followed by from the producer (37.4%), supermarkets (37.3%), traditional grocers (31.2%), hypermarkets (29%), health food shops (26%), herb shops (17.5%) and pharmacies (6.2%).

When compared with the Portuguese, German buyers buy organic food products significantly more from speciality shops (65.7% vs 34.6%), the supermarkets (50% vs 21.3%), the traditional grocers (44.8% vs 14.0%), health shops (32% vs 18.4%) and herb shops (20.9% vs 13.2%). On the other hand, a significantly higher proportion of Portuguese buyers stated that they bought organic food products from hypermarkets (62.5% vs 2.3%). These figures reflect both the differences in total consumption of OFP and in the structure of the organic food distribution chains in the two countries.

Concerning attribute importance for outlet choice (Figure 3) the most important attribute is the price/quality ratio of the products (mean 4.27), followed by availability of the desired products (3.94), range of products (3.64), outlet location (3.62), opening hours (3.36), prices (3.25), customer care (3.17), shopping convenience (3.16), price offers (2.93), payment with credit card (2.59), and personal relationship with the owner (2.04).

Figure 3 – Attribute Importance for Outlet Choice (mean scores)

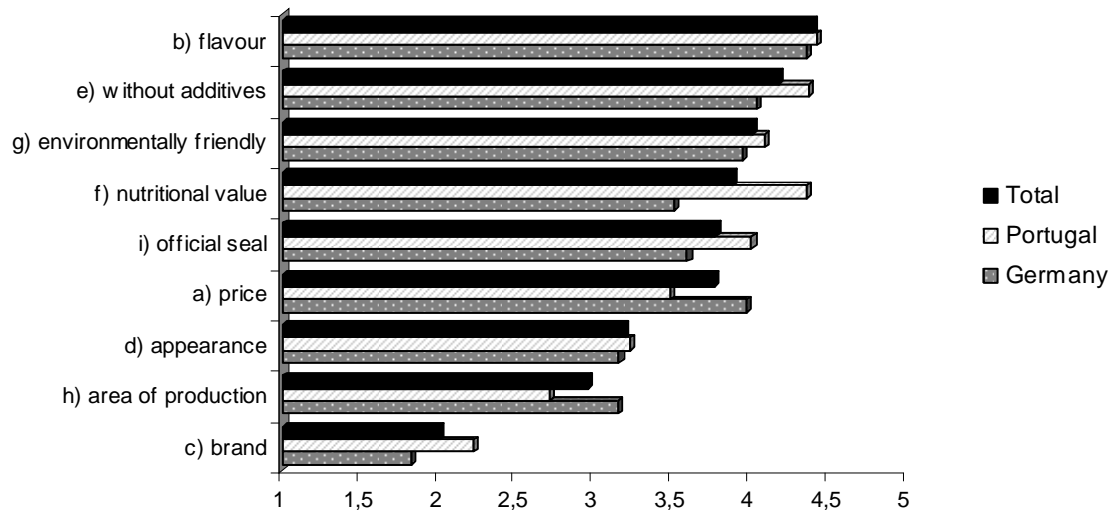


German and Portuguese respondents differ significantly in the importance they attach to the various attributes that form the basis for choosing their food outlet. Therefore,

the price-quality ratio and outlet location are significantly more important for German consumers than for Portuguese consumers, while shopping convenience, range of products, price, customer care, and personal relationship with the owner is more important for Portuguese respondents.

Moving now to attribute importance for OFP buying-decision (Figure 4), flavour is the most important attribute with a mean of 4.4, followed by the absence of additives (4.19), environmentally friendly production (4.02), official certification (3.78), nutritional value (3.89), price (3.77), appearance (3.19), production region (2.96), and brand (2.01). German and Portuguese consumers attach significantly different importance to six of these nine attributes. Therefore, the absence of additives, the nutritional value and the official certification of organic food products is significantly more important for the buying-decision of Portuguese buyers than for German buyers, while price and region of production are significantly more important for the Germans than for the Portuguese.

Figure 4 – Attribute Importance for Buying Organic Products (mean scores)



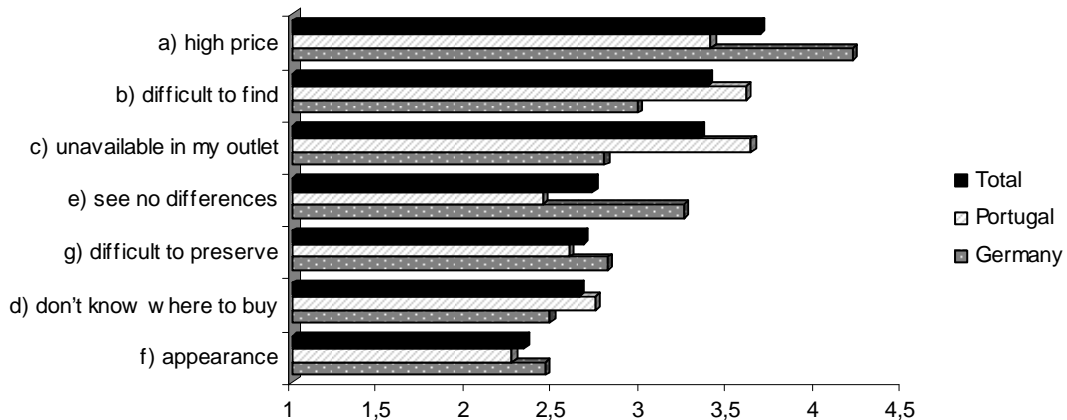
4.5 The Non-Buyers of OFP

The non-buyers of organic food products were asked about the reasons that could explain their behaviour (Figure 5). The higher price of the organic food products is the

reason that best explains this behaviour (mean 3.68). The difficulty in finding organic products (3.38) and the fact that they are unavailable in the respondents' usual food outlet (3.33) are also relatively important for respondents. These reasons are followed by the fact that some of the non-buyers do not think that organic and conventional food products are any different (2.72), think that the products are difficult to preserve (2.67), do not know where to buy these products (2.65), and do not like their appearance (2.33).

The Portuguese and German respondents also mentioned different reasons for not buying organic food products. German non-buyers agree more strongly than the Portuguese that it is because of the higher price of organic products and because they do not see any differences between OFP and conventional food. Portuguese non-buyers agree significantly more strongly than the Germans that they do not buy organic products because they are difficult to find and they are usually not available in their food outlet.

Figure 5 – Reasons for Non-Buying of Organic products (mean scores)



Non-consumers of organic food products were also asked a series of questions about their future intentions concerning organic food products. 29% of respondents agreed that consuming organic products would be a good experience, 50.6% declared that it would probably be so, 17.7% did not know, and only 2.5% said it would not be a good experience. The proportion of Portuguese respondents that said yes was much higher

(44.4%) than the proportion of Germans (8.8%). A much higher proportion of German respondents declared that they did not know (29.4% vs 8.9%) or no (5.9% vs 0%).

Approximately 67% of the non-consumers acknowledged that they had seen organic food products for sale. Again, this proportion is much higher among the German respondents (90.5%) than among the Portuguese respondents (54.8%). Moreover, 25.6% of the non-consumers declared that they would buy organic food products if they were available in their food outlet, 29.5% said that they probably would, 26.9% declared that they did not know, and 17.9% said they would not. The percentage of Portuguese respondents that said that they would or probably would buy OFP under this condition is much higher than the proportion of Germans (84.5% vs 15.2%).

Finally, non-consumers were asked if in the future they intended to look for and to buy organic food products; 24.4% of respondents said they did, 43.6% said that they probably did, 28.2% said that they did not know and only 3.8% declared they didn't. The major difference between Portuguese and German consumers is in the proportion of people that said yes (31.1% vs 15.2%) and that declared that they did not know (17.8% vs 42.4%).

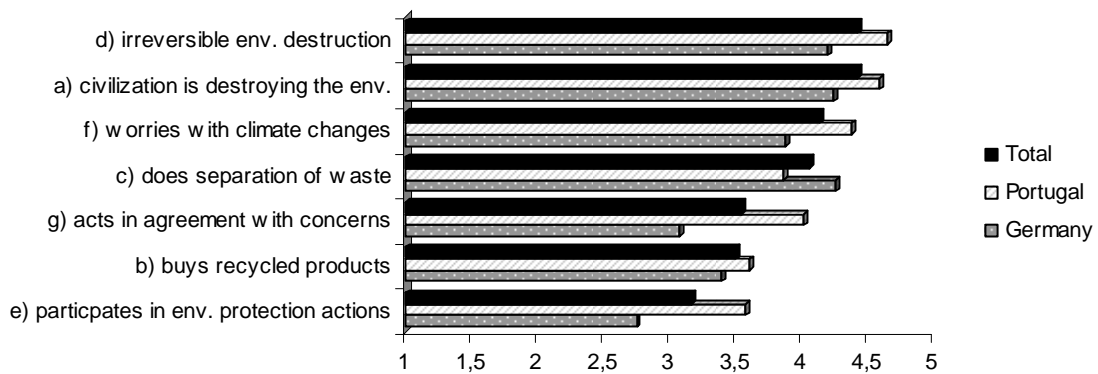
4.6 Willingness-to-Pay for OFP

Respondents were also asked about their willingness to pay for different categories of organic food products in a scale of percentage of increase in the price (1: zero WTO, 2: until 10% more; 3: between 11% and 25% more; 4: between 26% and 50% more; 5: more than 50%). The willingness-to-pay for organic fruits and vegetables was the highest; respondents were willing to pay between 11 % and 25 % more for these products (mean 2.39). The second highest was eggs (2.38), followed by poultry (2.33), other meat (2.31), milk and dairy produce (2.22), olive oil (2.19), grain and bread (2.05), honey and jam (1.90), rice and pasta (1.77), and wine (1.69). It can be added that, in general, the willingness-to-pay for organic products is significantly higher among Portuguese respondents than among German respondents. The only exceptions are milk and dairy produce and poultry, for which significant differences were not found, and eggs, for which the willingness to pay of the Germans is higher than that of the Portuguese.

4.7 Attitudes towards the Environment

Finally, the respondent's attitudes towards the environment were evaluated with the help of a Likert scale (Figure 6). Respondents tend to agree strongly with the statements that reflect the negative impact of human civilization on the environment and they try to act coherently with their opinions, buying recycled products, separating waste and supporting actions for the protection of the environment. German and Portuguese respondents hold significantly different attitudes towards environment. It can be said that, in general, Portuguese respondents tend to agree relatively more strongly with all the statements in the scale. Only in the statement about the separation of waste do the German consumers have a significantly higher mean than the Portuguese.

Figure 6 – Attitudes towards Environment (mean scores)



5. CONCLUSIONS AND RECOMMENDATIONS

OFP and organic farming are very relevant both for producers and consumers, since they have the potential to aid in the solution of a range of problems related to food production, consumer's safety and quality concerns, environmental sustainability, animal welfare, and rural development. Also, OFP are becoming a major opportunity for food producers in Europe, due to a growing consumer interest for certified organic products.

This is a precondition for developing a market for organic food and as a consequence to raise farmers' income.

The consumer survey described in the present paper confirmed past research, showing that consumers in both countries under study considered they had relatively good knowledge of OFP and that they would continue to hold positive attitudes towards these products. For the respondents, the absence of chemical additives and certification are the attributes that best define OFP. Additionally, respondents perceive OFP as being healthy and of good quality. OFP perceived taste superiority is also important for consumers, but the respondents strongly perceive OFP as being more expensive than conventional food products. Moreover, respondents are of the opinion that OFP consumers are health and environmentally conscious people, as well as being demanding consumers with relatively higher incomes.

Given the good image of OFP in both markets, their declared consumption is much lower than could be expected. The majority of respondents stated that they consumed organic products but most of them also eat conventional food products and are light consumers and buyers of this type of product. The OFP share of the total amount of food consumed is quite low in both samples. Therefore, it can be stated that the marketing strategies for OFP should aim at increasing the frequency of the purchases and the amount of OFP bought per purchase by existing consumers, rather than focusing at increasing the number of consumers.

From the survey results, it can also be concluded that fresh OFP are more successful in the markets than transformed OFP. This fact may be explained by factors relating to both demand and supply. On the one hand, probably consumers have worst quality perceptions of transformed OFP and they do not value as much the OFP attributes in this type of product. On the other hand, due to technological barriers and the higher increase in the costs of production, the supply of transformed OFP is also much lower than for fresh OFP.

Respondents give as their main explanation for the non-consumption of OFP their higher price and reduced availability in the shops, rather than negative opinions about OFP attributes. Therefore, intentions to buy OFP are quite high (but not very strong), suggesting that these products might still obtain a substantial market share in the future. This is an

encouraging sign for prospective producers of OFP, who might compensate the likely increase in unitary production costs with increases in total production.

However, the willingness-to-pay for different categories of OFP was, on average, relatively low. Generally, it can be said that the declared willingness-to-pay is higher for fresh organic products than for transformed products. As such, only for fruits and vegetables did the respondents accept an increase in price over ten percent.

It is also important to note that OFP are preferentially bought in speciality shops and directly from the producer. Consequently, it can be stated that consumers go to different types of food outlets to buy OFP and to buy other food products, for which supermarkets and hypermarkets are preferred. For the respondents a good food outlet is one that has a large range of products and a good price-quality ratio for the products it sells.

The study also showed that the Portuguese and German OFP consumers are significantly different in their behaviour relating to OFP. More Germans are OFP consumers and they consume organic products in bigger amounts than the Portuguese. However, German respondents are shown to be more price sensitive and are, on average, less willing to pay a price-premium for organic products. Moreover, it can be stated that, generally, German consumers do not hold as strong attitudes towards OFP as the Portuguese. These facts might be explained by the greater maturity of the OFP German market, where consumers build their opinions on their own experience and OFP are not perceived as 'exotic' products but more similar to usual food products.

Given the study results, it can be concluded that respondents perceive OFP as healthy, safe and of good quality. However, these products are also perceived as expensive and difficult to find in the bigger food retailers, where consumers do their everyday shopping. Consequently, in order to increase the OFP market share, producers and retailers should concentrate their marketing efforts on distribution and merchandising strategies. It is necessary to place OFP in the right place, where buyers can easily purchase them, and to display the products on the point-of-sale in a visible and appealing form, so that consumers want to buy them.

It is also important for market growth and success that the identity and the communication strategies of OFP stress the naturalness, safety and healthiness of this type of product, in order to reinforce the existing positive attitudes towards organic food

production. Moreover, communication strategies should strongly combat consumers' perceptions of OFP high-prices by either justifying the premium prices, when they exist, or stressing their low levels.

The survey results also showed that the information sources out of the control of the firms are more important to build consumers beliefs than are the traditional marketing communication tools. Nevertheless, experts are a relatively important source of information about of OFP in both countries. As such, public relations aimed at those experts should be given considerable importance in the communication strategies of the firms, in order to develop experts' favourable opinions about OFP.

In conclusion, it can be said that the research reported in this paper is only a small contribution to expand the knowledge on quality, safety and consumer behaviour towards organic food in Germany and Portugal and it revealed the need for more research in the field. More primary research is needed to confirm and further the findings of the OFP advantages related to attributes valued by consumers, namely their perceived healthiness and safety. Specifically, research could be developed in order to quantify the differences between OFP and conventional food products in nutritional content and in quality indicators such as biological, chemical and sensory (e.g., flavour) attributes and the relationship between the consumption of organic products and human health.

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