

## Determining consumer expectations, attitudes and buying behaviour towards “low input” and organic foods.

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### Abstract

*This paper reviews the first results and achievements of the QLIF SP1 “Determining consumer expectations and attitudes towards organic/low input food quality and safety”. The paper aims to illustrate the array of methodologies used and to discuss the ongoing research in light of the first results.*

### Introduction

The QualityLowInputFood (QLIF) integrated project aims to improve quality, ensure safety and reduce cost along the European organic and “low input” food supply chains through research, dissemination and training activities. It focuses on increasing value to both consumers and producers and on supporting all components of the food chain, using a fork to farm approach. To achieve the overall aim the project has, as first of four objectives:

*Objective 1:* To improve the match between producer aims and consumer expectations regarding quality and nutritional value of organic and other “low input” food.

The QLIF Subproject 1 (SP1) specifically aims to:

1. explore and determine consumer perceptions, expectations and attitudes about quality and safety of organic and low input foods (WP1.1);
2. explore and determine actual & potential evolution of consumer buying behaviour (WP1.2).

The multiplicity of methodological approaches employed in this subproject has the objective of providing an element of “triangulation” in social science research, in which the outcomes from one approach can be validated by those of another. In addition, each of the approaches focuses on particular elements of consumer behaviour. The methodological debate entailed by the application of these various methods in a cross-cultural context is itself one output of this subproject.

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Both qualitative and quantitative approaches are being used. A review and re-analysis (WP1.1.1) of existing consumer studies/data was undertaken with a view to quantifying and explaining differences and similarities between EU countries with respect to consumers expectations and attitudes concerning the quality and safety of organic foods and their likely conventional alternatives (hereafter referred to -as "low-input conventional foods" or "low input foods"). Consumer expectations and perceptions regarding organic and other low-input products' characteristics were explored by means of focus groups (WP1.1.2). Consumer attitude measurement is being achieved by surveying a large sample of consumers in several European countries (WP1.1.4), by means of a specially designed cross-cultural questionnaire (WP1.1.3). The reported buying behaviour of organic consumers, and its evolution, relative to knowledge, awareness and changing attitudes, is being explored by in-depth interviews and direct ethnographic observation ("consumer biographies & narratives"), supplemented by a quantitative analysis of household panel data (WP1.2.2). The understanding of consumer attitudes and reported behaviour will be complemented by consumer choice experiments (WP1.2.1), in which buying behaviour is observed in the presence of alternative price/attribute packages. Finally, the implications for future demand for organic foods will be sketched by integrating all of these approaches into alternative scenarios, attempting to make sense of the results obtained in this SP (WP1.2.3).

### **Materials and methods**

The review and reanalysis of existing consumer studies and data indicated that prior to the EU research project "OMIaRD", (within which WP4 dealt specifically with a Pan-European analysis of the organic consumer), most consumer research in the organic sector relied almost exclusively on self-reporting of attitudes and buying behaviour drawn from quantitative surveys. Observation of consumer behaviour at the retail level was almost nonexistent in the literature or, if commissioned by supermarkets or other multiple retailers, results had not been made generally available. In addition, although numerous consumer studies had been undertaken across Europe, there was limited pan-European research in the field, and it was difficult to generalise findings from individual countries. The application of different research methodologies according to different target groups, food products or market segments, together with variations in the national or regional scope of studies, meant that wide-ranging, in-depth coverage of consumer perceptions and motivations, or knowledge of issues concerning the consumption of organic foods across Europe, did not exist. Furthermore, since for the most part emphasis had been on quantitative research methods, there was limited qualitative empirical investigation of organic consumers. On the other hand, the OMIaRD project focused only on in-depth qualitative analyses (focus groups and laddering) of the organic consumer across eight European countries (AT, CH, DE, DK, FI, FR, IT, UK).

Both focus groups and laddering data were specifically reanalysed for the QLIF project, aiming at highlighting quality and safety issues regarding consumer perceptions of organic food. Furthermore, the findings were compared with the results from the Danish DARCOF study based on consumer panel datasets regarding household expenditures (in DK and UK), supplemented by qualitative data provided by consumer panel members. Finally, based on these reanalyses and reviews, issues for discussion and further investigation were raised, highlighting differences in consumer perceptions and attitudes to the quality and safety of organic food.

Based on this comprehensive literature review and reanalysis of recently completed

project data, WP1.1.2 established four focus groups (FG) in each of five countries (France, Germany, Switzerland, Italy and the United Kingdom), concentrating on four products (bread, yoghurt, tomatoes, and eggs; two products selected for each FG). These products were chosen to reflect both processed and non-processed, and animal and vegetable origin. The focus was on occasional, "uninvolved" consumers of organic products, which are compared with substitutes in the eyes of the consumers (conventional, integrated products, local products, etc.)

The FG results highlighted major differences in attitudes, beliefs and understanding between consumers in the five countries. This had been anticipated and a major objective of the survey (WP.1.1.4) was to identify similarities and differences between consumer perceptions and attitudes towards organic and low input products in the different countries surveyed. What was less expected was the degree to which consumer perceptions and concerns relating to organic agriculture could be so product specific. With so much product-specific information now available from WP1.1.2, it was therefore decided to select the same four products in the survey, and to design the questionnaire in such a way that each respondent would complete a questionnaire relating to only one of the four products - including a number of product-specific questions. These related mainly to quality and safety characteristics of the products at issue. For example, when asked to say how important each of a list of attributes were as indicators of the quality of the product, following a number of attributes common to all four products, product specific attributes were added:

- For bread: made from wholegrain, no genetically modified ingredients, texture, smell, made with natural yeast;
- For eggs: quality of poultry feed, produced with freedom to move, outdoor production, size of egg, colour of yoke, colour of shell;
- For Yoghurt: fat content, packaging, fruit content;
- For tomatoes: in season, not artificially ripened, not produced under glass, pre-packed; country of origin, the variety, not genetically modified.

A similar approach was adopted in the case of questions concerning food safety concerns. Most of the factors which people were asked to assess in relation to possible health risks needed to be product specific. For example, for Yoghurt, the list was: Fat content, sugar content, standard of hygiene in milk production, use of hormones in milk production, unnecessary use of veterinary medicines, use of additives, genetically modified ingredients. Questionnaire design was the objective of WP 1.1.3.

The responsibility of administering the survey was given, by an official EU tender, to ORC International (for CH, DE, FR, IT, and the UK), while a separate sub-contract was made with MAICH to administer the survey in Greece, a non-partner country. In addition, and consistent with the stated aim of the QLIF project to seek collaborative research opportunities outside the boundaries of the IP itself, agreement was reached with a Turkish academic institution for the questionnaire to be also administered in Turkey. The questionnaires are administered by CATI; at the time of writing, data collection for the UK and Greece is completed and completion for the remaining countries is expected within the next few weeks. Data analysis will commence soon.

The reported buying behaviour of organic consumers and its dynamics is currently being investigated by combining a comparative analysis of qualitative interview data

collected in Denmark, Great Britain and Italy with a quantitative analysis of household panel data regarding actual household purchases on these 3 markets. The objective of the quantitative analysis is to delineate the chronology of typical purchasing patterns in specific household types over a 3-5 year period with respect to product categories and product groups. The qualitative methods employed include interviews and *participant observation*. By immersing him- or herself in the subject being studied, the researcher is presumed to gain understanding, perhaps more deeply than could be obtained, for example, by questionnaire methods.. This method relies on first-hand information, and on relatively simple and inexpensive methods, resulting in high face validity of data. The downside of participant observation as a data-gathering technique is increased threat to the objectivity of the researcher, unsystematic gathering of data, reliance on subjective measurement, and possible observer effects (observation may distort the observed behaviour). As a result, a broad range of ethnographic data are currently being collected in each country in the form of detailed case studies of 18 principal subjects with varying degrees of commitment to purchasing organic food products and focusing on *oral narratives*, which feature *biographical accounts and trajectories* detailing important events that have influenced decisions regarding food purchases and food consumption in the household, supplemented by direct observation of a shopping trip and oral interviews with shopkeepers and family members of the principal interviewee.

The methodologies underpinning WP 1.1.3 and WP 1.2.1 are discussed in separate papers at this conference; and that for 1.2.2 explored further later in this paper.

## Results

One prominent issue emerging from our review and reanalysis of consumer attitudes towards quality and safety of organic food is the fact that they are complex, unstable, and embedded in a wide range of issues linking food to health, environment, ethics and identity. The meanings of 'natural', 'pure', 'traditional' and 'authentic' for consumers and food specialists need to be examined carefully and reassessed, particularly with regard to technical development and policy innovation. Organic products serve a wide range of functions, and consumer expectations of them are high, although not always in a conventional sense (for example, they may be suspicious of flawless presentation of products, but they do want taste intensity, and reassurance about production, processing and distribution systems).

Another major theme concerns the segmentation of organic consumers into two main types: regular and occasional, or heavy, medium, light and non-users. There is some ambiguity about the implications of this issue, as well. Core organic consumers have commitment to the extent that organic products represent the quality and safety characteristics that they seek. They have also integrated social concern for the environment (and sometimes even broader ethical issues) into their purchasing behaviour, and appear to display, at least to a degree, missionary zeal in wishing to extend organic consumption, and hence organic production, and its presumed environmental benefits. Other (occasional or 'new') organic consumers appear to be more price- and convenience-sensitive, but it is not (yet) known or explored if their attitudes would change if their commitment to organic food were to increase. To some extent, therefore, organic market development may rely on achieving scale economies in distribution and greater levels of processing, and expanding into the large retailers' shelves (Midmore et al. 2005).

These insights gave strong anchors (taste, freshness, appearance, healthiness and purity, environmental concerns) for development of protocols for further, more detailed examination of quality and safety issues in the new round of focus groups in WP1.1.2.

As mentioned earlier, one of the major findings of these focus groups was that many consumer-relevant attributes are very product specific, even for organic products.

For fresh or lightly processed products, organic is seen as a guarantee of the naturalness and "purity" of the food. Organic is associated with freshness and a minimal level of processing. Organic is thus linked to short distribution channels, on-farm production, and self-production. Indeed, for some consumers, organic can be a synonymous with any product purchased locally or through short distribution channels (Sylvander and François 2006).

For processed products, organic is associated with some assurance of food safety if compared with conventional products, when "industrial" food processing is suspected. Consumer product knowledge in general appears quite low, with differences among countries; the level of information is particularly low with respect to farming and processing techniques. Not all (organic) consumers are active information seekers, since many think it is too time-consuming and tiring to keep up-to-date with respect to products they purchase on a regular basis (Sylvander and François 2006). Food products are generally thought of as being low involvement products, which are routinely purchased with little or no information seeking (Peter et al. 1999).

Issues highlighted to be further explored in the survey were the "overuse" of additives, the preference for "natural", the links between organic and other concepts, such as "local" "free range" "home-grown" "fair-trade"; organic versus "industrial" production; the relevance of ethical considerations in production; the fact that organic is not well understood and the need therefore to research the components of organic products separately.

Currently, results from the survey are not yet available, although WP1.1.3 allowed the development of a common survey instrument for administration in different countries enabling legitimate inter-country comparisons to be made – which has been difficult in the past on the basis of differently designed national studies.

Consumer narratives and biographies are in the phase of being collected by means of participant observation. No empirical results are therefore available yet. However, a significant result is the conceptual framework and the protocol of the qualitative study itself. Our approach to the planning of data collection and analysis is inspired by some theoretical contributions regarding the cognitive processes that underlie changes of mind, the character of substitution strategies in the context of everyday shopping, and the character of product loyalty (Zanoli and Naspetti 2006 a & b; O'Doherty Jensen 2006).

#### *Changes of mind*

Taking into consideration individuals' cognitive/reasoning processes, and assuming that consumption of organic food involves (or possibly has involved at some time in the past) changing one's own mind about food experiences and food habits, we have been inspired by the work of Gardner (2004) on this topic, with particular reference to the following two points.

1. According to Gardner, when someone undergoes a change of mind (or attempts to change the mind of another person) the process of

persuasion usually involves concepts, stories, theories, and skills. We will try to identify the concepts, stories and theories mentioned by respondents in their discourses about organic food. Consumer reasoning can be studied with reference to these elements with a view to obtaining a deeper knowledge and understanding of consumer discourses.

- a. The *concept* is the basic unit. Concepts are stored terms easily remembered. Terms, such as 'food' or 'meal' are relatively clear and familiar ideas around which related facts are linked. People usually understand what these concepts mean, but due to the fuzzy limits of such concepts individuals may have different perceptions of the domain to which the term refers, especially in the case of more abstract terms such as 'democracy', 'pride', etc. In all likelihood, the term 'organic' is a fuzzy concept for many consumers.
- b. *Story or narrative* describes events that occur during time. There has to be a protagonist. There have to be goals. There have to be obstacles people can identify with. There has to be an ultimate resolution—hopefully a positive one. A story is not the same as a message or a vision or a slogan. It's a more encompassing, realistic, enveloping thing.
- c. *Theories* are formal explanations of worldwide phenomena. They are capable of predicting future occurrences or observations of the same kind, and capable of being tested by experiment or otherwise falsified through empirical observation, but they can also change over time due to new knowledge. Individuals can observe an apple falling on earth. Adults usually know that apples fall towards the centre of the planet, and the theory that explains why they do so is the current theory of gravitation. Children learn these theories later, although they can sometimes observe the phenomena to which they refer at an earlier stage.
- d. *Skills* The cognitive aspects of 'skills' are usually attained in practice and tend to remain implicit, rather than being conceptualized, articulated in words or related to explicit processes of reasoning. It is therefore difficult to obtain data on skills by means of posing questions. However, some skills are particularly relevant in the present context. These are skills related to the choice and uses of food products in the household. Cooking skills have special relevance insofar as the choice of relatively less processed products may be heavily dependent upon the resources of skill, as well as those of time and/or money, available in a given household. Organic, as compared to conventional products, have largely been available in relatively unprocessed forms. Particular attention will therefore be given to discourses regarding the level of interest in and involvement with the tasks of food preparation in given households, whether these constitute a reason for or a barrier against the choice of organic foods.

2. Gardner identifies "seven levers" that may influence a mind change: research (relevant data), resonance (the affective component), re-descriptions (mutually reinforcing images of what will result from the change), resources and rewards (perceived cost-benefit relationship), real world events (wars, hurricanes, terrorist attacks, depressions, etc.), and resistances (motivation stimulated by opposition). He also asserts that over time, people become more resistant to change. Set in their ways, determined to protect their "comfort" and "custom".

#### *Product substitution*

The following consumer strategies have been identified as responses to a situation in which a given sought after product proves to be unavailable while shopping. The examples given here refer to a situation in which a particular organic product proves to be unavailable.

1. Close Substitution: the decision taken is to substitute the missing organic product with a different organic product in the same shop.
2. Treason: the decision taken is to substitute the missing organic product with a similar but conventional (or integrated, low-calories, etc.) product.
3. Re-try: the decision taken is to come back to same shop in the near future to search for the product.
4. Re-locate: the decision taken is to look for the missing organic product in a different shop.
5. Surrender: the decision taken is to simply abandon the attempt to find this product without deciding to look for it in the near future.

These strategies will inform our data collection and analysis of substitution as a factor underlying the character of relatively stable or fluctuating demand for organic products.

#### *Loyalty*

According to Dick and Basu (1994), product loyalty on the part of consumers is characterised by repeated patronage with regard to a particular product/brand/label and by the relative attitude towards that product, antecedents of a given attitude comprising cognitive, affective and conative elements.

Three consequences of customer loyalty have been identified. These are:

1. How likely it is that a given customer will search for alternatives
2. How resistant the customer is to counter-persuasion (presented by competing, substitute products)
3. How likely the customer is to tell others about the preferred product (word-of-mouth recommendation).

These perspectives will likewise inform our data collection and analysis of loyalty as a factor underlying the character of relatively stable or fluctuating demand for organic

products. In particular, we will seek to understand the ways in which relative levels of loyalty are constituted over time for different consumers and to identify the factors that influence this process.

### **Discussion**

So far, the only available results which suggest issues of wider significance for the QLIF project as a whole are those derived from WP1.1.1 and WP1.1.2.

Firstly, for arable and livestock experimental work, it is important to take improved experiential qualities into account, whilst at the same time recognising that uniformity and high levels of processing and packaging are regarded by consumers of organic products with a significant degree of suspicion (Midmore et al., 2005). At the same time, as the FG results have highlighted, "consumers' knowledge of agriculture, food technology and processing seems to be weak, with differences between countries" (Sylvander and François, 2006)

There is also merit in trying to orient technical developments so that they can be disseminated to small producers supplying local niche markets, for the impact on rural development that might ensue, but also in terms of gaining consumer trust, shortening distribution chains, and providing generalised environmental benefits in terms of decreased pollution. Issues raised here can be tested in the consumer experiments, which will be conducted later on in the QLIF project.

As far as food safety issues are concerned, standards and certification seem to fall short in terms of consumer reassurance, at least for the uncommitted group. Clearly, there is a need to develop certain aspects of the food chain to meet general food safety regulations and best practice within an organic standards framework. The life sciences components of QLIF will need to interact with the standards bodies so as to inform the development of their certifying frameworks, and also to work in ways that make communication of assurance about the imbued standards to anxious and mistrustful consumers easier, and more effective. There is even merit in the further exploration of these issues in future research, e.g. FP7.

### **Conclusions**

Although the subproject core tasks are still in the data collection phase, we can attempt to draw some conclusions in the context of the overall QLIF aims.

Firstly, in terms of benefits and values sought by the consumer, organic food can be considered a category and be positioned consistently on the (European) market; country differences exist, but the common elements prevail at the benefit and value level (Zanoli 2004) and – to a certain extent – these remain across products too.

Country differences are more marked at the level of product characteristics, which – as was evidenced by the focus groups – are very product specific even at the abstract attributes level. Expectations regarding bread are obviously different between different cultures and countries, and of course what you expect and perceive to be relevant when purchasing bread is not the same that you expect and perceive to be relevant when you buy yoghurt or eggs or tomatoes. But these product-specific differences are even more marked when speaking of organic products; for example, while the issue of GMO is mentioned as an unsought product characteristic for bread and tomatoes and, indirectly, for eggs (since consumers care about the poultry feed), they seem to be of no concern for the consumption of organic yoghurt.



The attribute level is the most relevant for product policy, and needs to be carefully explored when designing 'new' products – both raw and processed – and new services – e.g. inspection and certification – regarding organic supply-chains. The results of the survey and of the consumer choice experiment could bring new insight on the ranking of quality attributes in relation to their degree of importance in influencing purchase decisions.

Finally, since organic and "low input" alternatives are *de facto* market substitutes, the insight into *product loyalty* and the dynamics of *changes of mind* which will be gathered by the consumer narratives & biographies will further enhance our comprehension of what *really matters* when consumers choose to purchase and consume organic or alternative food. This means, in line with the overall QLIF aims, that we will be able to better identify the "triggers" enabling organic and "low input" farming systems to be developed "in tune" with consumer expectations.

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