The European Consumers' Understanding and Perceptions of Organic Salmon Production

Aarset B[2]; Beckmann S[7]; Bigne J[8]; Beveridge M[1]; Bjorndal T[2]; Bunting, M J[3*]; McDonagh, P[4]; Mariojouls C[9]; Muir J F[1]; Prothero A[5]; Reisch, L A[10]; Smith A P[3]; Tveteras R[6]&Young J A[3*]

1. *Institute of Aquaculture, University of Stirling, Scotland, UK, FK9 4LA*
2. *Centre for Fisheries Economics, Foundation for Research in Economics and Business Administration, Bergen, Norway.*
3. *Department of Marketing, University of Stirling, Scotland, UK, FK9 4LA*
4. *Dublin Institute of Technology, School of Marketing, 40-45 Mountjoy Square, Dublin 1, Ireland*
5. *Department of Marketing, The Michael Smurfit Graduate School of Business, University College Dublin, Blackrock, Co Dublin, Ireland*
6. *Stavanger College, Department of Business Administration, P.O. Box 2557 Ullandhaug, N-4091 Stavanger, Norway*
7. *Department of Marketing, Copenhagen Business School, Faculty of Economics and Business Administration, Solbjerg Plads 3, DK - 2000 Frederiksberg, Denmark*
8. *Catedrático de Commercialización e Investigación de Mercados, Universitat Jaume I, Campus Riu Sec 12080, Castellón, Spain*
9. *Institut National Agronomique Paris Grignon, Department des Sciences Animales, 16 rue Claude Bernard, 75231 PARIS Cedex, 05 France*
10. *Institute of Consumer Research and Policy (530/1), University of Hohenheim, Germany*

*Corresponding author: J.A.Young, Head of Department of Marketing. Tel.: +44 1786 467383; Fax: +44 1786 464745; e-mail: j.a.young@stir.ac.uk

Abstract

Rising consumer concern over intensive food production issues has resulted in an increase in demand for organic alternatives to a wide variety of foods including fruit and vegetables, meat and poultry. More recently, there has also been considerable interest in the marketing of more environmentally-friendly supplies of fish, including those from farmed production systems. 'Organic' salmon has featured in the forefront of this market innovation, although it is arguably more problematic to apply traditional organic principles to salmon production. The term 'organic salmon' contains at least three different components - animal welfare, chemical use and sustainability, the most controversial issue being animal welfare. Of fundamental importance is the extent to which this term can usefully be applied to salmon and, more importantly the extent to which consumers perceive animal welfare to be an important issue in salmon farming. This paper reports on some results based upon consumer focus groups in 5 countries (France, Germany, Norway, Spain and UK) and considers a number of issues relating to fish welfare and organic salmon production more generally. As the food market continues its seemingly relentless march to greener pastures it is suggested that this study may help identify some implications for future aquatic food product development decisions.

KEYWORDS: organic food & salmon, European consumer attitudes

Introduction

Over recent years European consumers, like those in many other countries, have demonstrated heightened awareness of the food they eat and have become much more concerned with the way in which it is produced. Various facets of these behaviours have been noted to include animal welfare (Fearne and Lavelle, 1996), food safety (Huang, 1996), health (Beharrel and MacFie, 1991), quality (Haglund et al., 1999) and more general environmental considerations (Haglund et al., 1999). One consequence of this evolving change in perceptions of foods has been a dramatic growth in the demand for various types of organic product.

Traditionally the demand for organic foods has been rooted in fruit and vegetables but more recently has extended to encompass meat and poultry too. These changes to incorporate a more diverse range of food product categories have undoubtedly been promulgated by a number of food scares within the more conventional, contemporary systems of meat production. This is best typified by the outbreak of BSE first within the UK and subsequently elsewhere within Europe (Smith et al 1999).

More recently, fish has entered the pool of organic food options and has been led by salmon. Until the recent upsurge the concept of organic fish appears to have received very little attention. An obvious reason for this would seem to be the fact that the vast majority of fish supplies still tend to come from wild, capture fisheries rather than aquaculture. This status of dominant dependence upon a hunted resource remains a quite unique characteristic of fish, and one which is probably deep-seated in the mind-set of food consumers. Nonetheless as the relative share of farmed fish supplies increases and the diversity of farmed species rises accordingly, there seems little reason to doubt that consumer concerns and awareness will tend to mimic those that have emerged in other agricultural sectors (Aarset et al., 1998). With the advent of organic salmon production the focus of this paper is to outline the preliminary results of consumer research undertaken in France, Germany, Norway, Spain and the UK. It is suggested that the initial reactions of organic salmon consumers may hold important implications for the development and launch of other organic fish species.

Organic definitions

A generic problem of organic foods is the term ‘organic’. There are many different meanings and interpretations and there is often confusion with terms such as ‘green’, ‘ecological’, ‘environmental’, ‘natural’ and ‘sustainable’ (Hutchins and Greenhalgh, 1995; McDonagh and Prothero, 1997; Schifferstein and Oude Ophuis, 1998). The term organic is also commonly interpreted on many different levels and may mean quite different things to different people. For example, what is organic to one consumer may be anything but organic to another. Similarly, the interpretations of what constitutes organic may also differ between producers and subsequently within the various regulators’ interpretations of the term. The imprecision of an organic definition clearly adds to the potential for confusion in communication along the supply chain.

The term ‘organic’ has been used to describe diverse products ranging from fruit and vegetables to dairy and animal produce, as well as cereals, pulses and grains. Organic labels are based on schemes operated by a plethora of certification bodies such as The Soil Association (UK), Debio (Norway) and Naturland (Germany). Whilst there may be a general definition of organic principles, there is considerable variation in the certifying authorities within each country. During the period of research there were 7 in the UK, 1 in Norway, 3 in France, 17 in Spain and no less than 59 in Germany. It is hardly surprising that this diversity ripens the scope for ambiguity and problems with monitoring activities and applications. Fundamentally, the certification scheme responsible for labelling a product as organic will also influence the actual meaning of the supposedly generic descriptor. Clearly these ambiguities in conventional organic products are even more likely to cause confusion in novel organic produce such as fish.

Given the evolution of the markets, consumer research has tended to focus on arable production and to a lesser extent animal products. Hitherto there has been very little attention given to consumer attitudes to organic fish. Whilst the principles of organic production are comparatively straightforward for arable production, the application of these principles in aquatic production is arguably more problematic (Aarset et al., 1998). As yet there are no EU regulations for aquaculture, not least because of unresolved issues concerning animal welfare, feed, chemical inputs and sustainability. However, evidence of emergent interest in the production and marketing of organic fish suggests that this regulatory void requires to be filled. In order to promote better understanding of the issues which any such organic fish regulations might embrace, the remainder of this paper explores consumer perceptions of the term organic generally and more specifically for organically farmed salmon.

Researching the organic consumer

Understanding the acceptability, and the potential, of any organic food is critically dependent upon gathering some insight into consumers’ perspectives (Hutchins and Greenhalgh, 1995). Arguably this is all the more so where the product concept is novel, such as organic salmon. A number of studies exploring consumer attitudes to organic foods have been undertaken in various countries including the UK (Tregear et al., 1994), USA (Jolly et al., 1989), Norway (Wandel and Bugge, 1997), Germany (Werner & Alvensleben, 1984), the Netherlands (Schifferstein & Oude Ophuis, 1998), Denmark (Grunert & Juhl, 1995) and Ireland (Roddy et al., 1996). In general these studies have identified the importance health, food safety, environmental concerns and a better taste as principal factors promoting the purchase of organic food. However the extent to which these factors differ amongst consumers, according to various demographic criteria and over time, remains under- researched.

In order to gain the necessary depth and understanding of the issues salient to the consumer a qualitative methodology was adopted; this was especially relevant given the limitations of existing research (Geertz 1979; Eisenhardt, 1989). The potentially sensitive nature of some of the topics to be covered under the areas of definition and ethics also favoured qualitative techniques (Hedges and Ritchie, 1987; Sykes, 1990). Focus groups were therefore recruited in each country, totalling 8 in the UK and 5 in each of the other countries, and these were conducted over a period of 5 months in 1998/9. The participants were purposively recruited to represent the population of each state in terms of age and gender distribution; further subdivision to reflect other variables was rejected due to the relatively small numbers involved. The sample totalled 196 (86 male and 110 female, age range 17-70) and comprised 40 consumers in each country, except Germany with 37 and Norway with 39. Only consumers who had eaten fish at least once within the previous three months were recruited.

The focus groups were generally held in the evening to facilitate wider social inclusion and each session typically took between 1 and 2 hours. Notwithstanding the work being done in different countries, by different researchers, it was agreed that the meetings would follow a protocol of questions, developed according to standard guidelines (Krueger, 1988). The consistency of methodologies and the need for comparable data was essential, thus the interview schedule and topic guide were designed and standardised by the team through face to face and electronic discussion; as were the methods for data collection, synthesis and analysis. All interviews were audio/video recorded to facilitate analysis which was carried out using a standard thematic analysis of the data. The focus group sessions routed the research through an initial enquiry about organic food and then led onto organic salmon and related issues. This was standardised across participating countries and it was agreed that this would be confined to verbal communication; at this stage of analysis visual images were simply used to help identify vocal contributions, but may be used otherwise at a later date.

Finding the organic consumer?

Given the variation in the regulatory definitions of organic it is perhaps not surprising that individual consumers and nationalities tended to have quite mixed views about the meaning of organic food. Most often an organic product was associated with a better taste and quality, free from artificial inputs and from environmental damage, however within these general parameters a much broader set of associations was found in different markets. In the French market, consumers associated the general term organic with being 'natural' and with limited control and intervention. In Spain there was widespread confusion over the connection between foodstuffs and terms such as organic and ecological since most believed that the terms were synonymous with natural. The majority of Spanish respondents considered organic to mean the non-use of pesticides and production methods which were not damaging to the environment.

When questioned, most of the Norwegian consumers readily agreed that they did not have a well-defined concept of organic food production in general and were unsure of its exact meaning. Within the UK the majority of respondents considered freedom from artificial inputs to be essential for a food to be regarded as organic, and the term organic was frequently interpreted to mean natural. In the German market a rather more ordered perspective of the term was evident. Three main aspects of organic production were clearly established in the consumers' mindset: animal welfare, natural and environmentally kind. German consumers were also found to be the most sceptical of the authenticity of organic products, which they perceived as either non-controllable or even forged. It is indeed interesting to note that this distrust occurs in a market with the greatest preponderance of organic standards.

Labelling and regulation of organic food was also greeted with some elements of disbelief elsewhere too. For example, there was a certain amount of scepticism displayed by some French respondents who described the labelling of organic food as simply a fashion or a trend. In France, consumers felt that regulation and control of organic fish farming should be done by an independent body, possibly in relation with the public administration. Many considered that strict regulation and control under a European regulation was the only viable way in which this might be effective and allow a fair trade. German consumers too opined their preference for some European or other international control. Spanish consumers displayed very little knowledge about the regulation of organic produce, a situation almost certainly influenced by the paucity of Spain's status as an organic producer. Perhaps more through familiarity with organic product from other markets, some respondents considered an organic label to be an indicator of quality.

For many of the Norwegian consumers the organic label was considered little more than a sales gimmick which enabled some producers to differentiate themselves from other suppliers and thereby earn more money. There was no consensus on the possible level of regulation for organic food, with opinion split between EU and national regulations. Knowledge of the system of organic regulation was limited amongst UK consumers too with comparatively few having heard of the various certifying bodies and labelling schemes. Somewhat perversely, most consumers trusted organic labels with little thought. Despite this behaviour, many consumers had reservations about the potential for different standards and the scope for self-interest within the system. Most felt that certifying and regulating bodies should ideally be independent with no governmental links. There was evidence of a certain amount of mistrust of the food production and regulation industry, which consumers attributed to the increased frequency of food scares in the UK over recent years.

These findings about the more generic perception of organic food highlight quite significant variation in the terminology and meaning of the concept. The associations with superior taste and quality raise issues about how such variables are assessed by consumers. Similarly the absence of artificial inputs and damage to the environment presumably require some tracking of product if these attributes are to be authenticated. However the existing mechanisms to provide such authentication, labelling and regulatory approvals or brands, were generally met with varying degrees of credibility. These background perceptions of foods which are widely accepted through traditional agricultural food production systems pose yet further challenges to the launch of organic status to fish, not least because the dominant dependence upon capture supplies and the comparative novelty of aquaculture products. In order to make some assessment of the perceptions of organic aquatic foods, the concept of organic salmon was next introduced to the discussions in each country.

National consumer perceptions of organic salmon

In France organic fish was appraised to be of better quality, both in terms of taste and consumer's health. Whilst some consumers were concerned that the creation of a label specifically for organic salmon would result in an increase in price, others were also concerned about the difficulties in controlling the quality of overall chain of production. This was especially so in respect of the quality of water in open sites, and the various inputs to the production system such as medicines, chemicals, feeds and their related environmental impacts. In Spain the respondents were largely unaware that most salmon is farmed, images of a capture-based production system continued to dominate consumer perceptions. The concept of fish farming and species manipulation was considered to be negative and consumers perceived farmed salmon to be associated with a poorer taste and being artificial. This paradox of lack of awareness yet seemingly quite trenchant views on the product attributes highlights some of the potential difficulties in launching an organic farmed fish product. Consumers opined that an organically labelled product would also have to taste better before they would be willing to pay a price premium; a farmed product simply labelled as chemical-free would not be a sufficient incentive to purchase. However a lot of importance was attached to the organic label, so long as it was backed by a certificate of guarantee of its organic breeding ideally from a body such as a Government Ministry of Health which was considered to be trustworthy.

In Germany knowledge of fish farming amongst consumers was found to be scant; respondents tended to use meat production systems as a more familiar reference point. Consumer concerns did identify fish farming practices such as the medication of fish, chemical additives and genetic modifications, although these concerns were largely related to personal health. For the most part, consumers in Germany expressed negative attitudes towards mass production and the use of chemicals. However the use of therapeutic medicines was deemed acceptable in an organic regime, with certain caveats, and did reflect some concern with the health and welfare of the fish. In a wider context environmental concerns were also evident. In contrast to the situation on Germany, many of the Norwegian respondents had fairly extensive knowledge about salmon farming. Most respondents found difficulty in accepting the implications of organic principles for salmon farming, and this was especially so where knowledge of fish farming practices was greatest. A number of respondents were cognisant of sustainability issues, especially in terms of the fish feed implications for other fish stocks. Views on organic salmon however were not universal: some felt that organic fish farming would do little to improve food safety, fish welfare and environmental sustainability and were happy with conventional methods. However others felt that organic fish meant the production of fish in its natural state and that farmed salmon could never satisfy organic requirements, no matter how tightly it was regulated.

In the UK consumers were also found to have fairly limited awareness of current fish farming practice. As with any organic food, all respondents felt freedom from artificial inputs was of fundamental importance if fish was to be farmed as organic. An exception to this, however, was the therapeutic use of medication which was regarded by some as a necessary and acceptable aspect of animal welfare, subject to certain constraints. Nonetheless, other consumers felt that organic principles should in no way be compromised whilst elsewhere the prevailing opinion was that organic production had to be economically and technically feasible. Overall, the majority of consumers remained sceptical that salmon could be farmed organically. Environmental impact was seen as a significant problem whilst for others the fundamental act of constraining a ‘wild’ fish in a cage in itself invalidated the concept.

Emergent common perceptions

If the trading pattern of its more intensively reared sister is to be mimicked, and the disparate points of production and consumption will encourage this, any organic salmon product will have to circumvent the diversity of adverse perceptions which seem to exist within a number of national markets. Clearly the targeting of individual markets will require the identification and derivation of marketing strategies to tackle the particular perceptions prevalent within each country, but it would also seem necessary to identify what, if any, the more common, deep-seated perceptions are before any widespread development of the sector is encouraged.

Certainly one of the more common concerns from a communications perspective is the meaning of the term ‘organic’. This would appear to be no less so in the case of fish products as it is with other organic foods; and in many cases the concept of organic fish causes even greater confusion. At the European level the many definitional and operational complexities surrounding the term organic, further complicated by the number of different certifying bodies, does little to promote consumer understanding. In most countries, consumers lacking of a detailed understanding of the basic terminology will do little to ensure that product differentiation, let alone price differentiation, can be fully capitalised upon. Presently, many consumers seem to place their trust in labels and brands without too much thought. Greater effort could be made to communicate simple and easily accessible information to consumers (Bruhn et al.,(1991) as current labelling schemes appear ineffective (Hutchins and Greenhalgh, 1995) and are confusing to most consumers. Arguably there is a risk that the any organic product launched will tend to become submerged within the general wash of consumer ignorance and thus lose the unique opportunity to establish unique brand positions.

Notwithstanding the vagaries of the term, there seems to be a general expectation that organic salmon should be environmentally friendly, and be produced in a sustainable manner. Many consumers expressed concern that salmon farming had become overly intensive to the detriment of adjacent ecosystems and beyond. One aspect of this concerned the implications of producing feeds based upon other, often overexploited, fish stocks. Increased media exposure of the role of aquaculture in encouraging overexploitation of fish stocks has ensured wider appreciation of the debate and raised ecological concerns about individuals’ emergent patterns of farmed fish consumption (Naylor et al, 2000). Quite apart from the green concerns that might be expressed about aquatic food production, including capture fisheries, more generally there is a clear danger that organic aquaculture production systems will be perceived to be little better than their more intensive counterparts.

The use of chemicals and incorporation of pharmaceutical and other artificial substances in the production process is also a common concern amongst consumers. More recently increased concern was expressed at the scope for GMOs to be used in farmed salmon production, especially when used to produce fast-growth stock. Again it is interesting to note the quite common practice within other agricultural sectors, notably beef and poultry, and the emergent adversity within fish. In particular those who buy organic foods expect that their purchases will be free of all non-natural substances. Respondents demonstrated an awareness of the routine incorporation of chemicals and pesticides in farmed salmon and were of varying opinion as to the implications of this for the subsequent use of the term organic.

Organic consumers are perhaps most divided in the use of medicines when these are used therapeutically to treat disease. Refusal to administer treatment for fish diseases was perceived unacceptable to many on grounds of concern for the welfare of the fish stock. However although others were willing to countenance its use, this did not automatically mean acceptance of the product on the shelf with an organic label. Many contended that stock so treated should be subject to an appropriate period of depuration and then be sold separately and distinctly from the other organic fish. Segregation of product on such a basis is critically dependent upon the coexistence of a HACCP system to prove traceability and, more importantly, consumer faith in the trustworthiness of the supply chain intermediaries.

Animal welfare was identified as an emergent issue and one with considerable potential to develop into a much more mainstream concern. Perhaps because fish are largely unseen until the time they are already dead, their welfare and husbandry were generally not considered to be to the forefront of consumers' concerns. However as the focus groups heightened awareness and thought on different aspects of the production process, the controlled conditions in which the fish are kept was discussed with some concern. One of the particular difficulties is that most consumers lack any reference point for what are normal and natural conditions. Measures such as stocking density hold no ready comparison in the mindset in the same way that say a herd of cattle, or free range chickens might. Fish, when alive, are for the large part, out of sight and thus, out of mind.

Once more resolution of consumer concerns is sought from the trust placed within the supply chain, and perhaps especially from the contact point such as the supermarket. The existence of sources of regulation and reassurance elsewhere within the chain is not viewed with great faith. The fact that consumers are distrustful of bodies with any governmental links is not surprising in light of various food scares and more recent incidents such as the accidental use of genetically modified food crops. There is an emergent consensus that independent experts or bodies should control the regulation of organic foods. However, the more cynically inclined can levy accusations of scope for bias at most, if not all, possible organisations who have the status and competence to play any such role.

Conclusions

Establishment and implementation of credible standards for organic salmon is vital but is likely to prove an extremely challenging task. The absence of clearly defined baselines from which the emergent organic aquatic food might be judged clearly does nothing to lessen the difficulty. Arguably the most pressing need is for some agreement to be reached as to what constitutes 'organic' fish products so that the tasks of harmonisation, implementation and generating awareness may begin.

Until this is done consumers are liable to remain confused and increasingly so as more product claiming to be organic is attracted by higher prices to the growing market. The clear danger is of course that an emergent market ill-defined and effectively unregulated poses the distinct opportunity for sub-standard product to be off-loaded, to the subsequent detriment of all concerned. Notwithstanding the high standards that some of the more innovatory organic producers have reached, and aspire to, in a market where product standards are unclear the scope is evident for adverse publicity and the ensuing media expose. Given the current and recent history of food scares, consumers are more alert to the phenomena and increasingly well-rehearsed in boycott actions.

By its very nature, the market for organic product is likely to remain small in comparison to conventional sources of aquatic foods. Provisional indicators suggest that production is likely to become the prerogative of smaller scale producers rather than the larger more intensive operations. Such smaller firms have much more limited promotions budgets and thus the opportunity for them to communicate with a largely dispersed market segment is compromised. This would suggest that effective communications with consumers might be best approached through nurturing relationships within the supply chain. Retail outlets, targeting particular markets, can be expected to figure more prominently in this activity. Their trusted endorsement of a range of organic fish products is clearly consistent with the image that they have increasingly sought to establish in other category management areas. Whilst there will always be a residual section of the more organically pure who will continue to resist such moves, remaining with the specialist outlets instead, there seems scope to extend the concept to other emergent species too. Indeed as the range of farmed species expands perhaps the real issue is the point at which the existing captured product might be considered for organic status?

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