

Seafood Labelling Trends

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ABSTRACT: This presentation draws on a number of studies and initiatives underway in the USA and Europe, demonstrating trends and preferences for seafood labelling. Product labelling performs both an information provision and product differentiation role. Studies have shown consumers' preferences for product labelling, particularly in terms of quality assurance and assurances as to the sustainability of harvesting and management. Tying into such preferences offers market opportunities.

1. INTRODUCTION

This paper presents a brief overview of a number of studies and initiatives underway in the USA and Europe, demonstrating trends and preferences for seafood labelling. Product labelling performs both an information provision and product differentiation role, which studies have shown consumers to exhibit preferences for, particularly in terms of quality assurance and assurances as to the sustainability of harvesting and management. Though tying into such preferences offers market opportunities, the opportunities are not universal, nor proven at this time.

Concentrating on European and American markets, the paper initially considers recent and present trends in seafood product labelling and the story behind the trends, focusing on quality and eco-type labelling (N.B. In his paper, the term 'seafood' includes all fish and seafood products). Some of the initiatives underway are highlighted during the discussion. The second part of the paper considers two recently completed studies which examine consumers' preferences and willingness to buy and pay for certified and labelled seafood products. Some of their key findings are drawn out and, as noted above, implications drawn.

2. TRENDS IN LABELLING

2.1. Absence of product labelling

Traditionally seafood products have been marked by an absence of product labelling with regard to seafood origin, manner of production and quality of product, so that consumers have had little explicit information on which to base their choices, or to act in ways that might support fisheries management agendas or even personal health interests. Many studies have revealed a lack of skills or knowledge in consumers to use intrinsic cues for quality and freshness, for example. Consumers appear to rely on criteria such as brand and price, which are highly unreliable cues. These deficiencies in labelling procedures are, however, being remedied.

2.2. Some current labelling schemes

That changes are being introduced into the system is partly due to seafood related issues, but they have also come about a result of a general increase in environmental awareness among consumers. The following labelling schemes are manifestations of consumers' preferences for more environmental information to inform their purchase choices: the European Community ecolabelling scheme¹ (Ecosite 1999), the German Blue Angel, the Nordic Swan label, Austrian eco-label and the Dutch Milieukeur, all of which are voluntary schemes. At the turn of the millennium, the oldest and most successful of these was the German Blue Angel. Created in 1978 which has become a significant environmental mark, with 51% of west Germans and 30% of east Germans looking for products that carry this label (Umweltzeichen 2002).

As with the Nordic swan label and Austrian eco-label, the Blue Angel label is mostly concerned with non-food products. The Dutch scheme likewise focused initially on non-food products. However, since 1995 it has incorporated a growing proportion of agricultural products and food stuffs within its scope, including fisheries-related products (Milieukeur 2002).

2.3. HACCP and ISO food safety initiatives.

The labelling of food products, and in particular fisheries products, has been slower to develop, but is now well underway, supported by a raised awareness of food safety issues and the way in which food commodities are treated and handled during the production and transportation processes.

These concerns are manifest, for example, in the HACCP and ISO food safety initiatives. HACCP stands for the Hazard Analysis and Critical Point scheme, which is a process- orientated quality management system, based on the identification of hazards and critical points during food processing and handling, and then targeting quality management at those points. It was first developed in the USA, but since the Sanitary and Phytosanitary Agreement concluded during the Uruguay Round of the (WTO) World Trade Organisation, it has been endorsed by national governments and international bodies as the basis of ensuring food safety (Caswell and Hooker 1996, OECD 1999).

The ISO initiative, the International Standard's Organisation 9000 series of standards, also follows a process-orientated approach, but one which is entirely voluntary. The standards stipulate the elements that a quality management should have in place to ensure the consistent quality of the end products (OECD 1999). Companies engage in the certification process to obtain and use the logo of the scheme to endorse their products. It should be noted here, that as neither of these schemes certify the quality of the end products, and are concerned only with the processes involved in their production, neither HACCP or ISO 9000 procedures result in end product labelling. Certification can only be utilised on a company-to-company basis.

2.4. Organic labelling schemes

Health and food safety concerns are also demonstrated by the growing number of organic labelling schemes, globally, and moves by several governments to supplement private schemes with government-endorsed schemes (as in Germany, the European Community generally and the USA). The following are merely a few examples of schemes already in place: Germany's Bioland and Demeter schemes, the private and US Department of Agriculture organic labelling schemes in America, the Soil Association's scheme in the United Kingdom and Norway's Debio scheme. In contrast to the HACCP and ISO schemes, in this instance the status

of the end product is regarded as identifiable. As a consequence, consumers can find 'organic' labelled products in the shops, and a growing number of European and US consumers look for these labels when making their purchase choices. One report projects that demand for organic products globally will reach \$80 billion US by 2008, a dramatic rise on 2001 figures of \$26 billion US (Organic Monitor 2001). Europe and the USA are dominant players within this global organic market and the growing market share.

3. LABELLING OF SEAFOOD PRODUCTS

3.1. Early developments

It should be noted that the labelling of seafood products is a relatively recent innovation. As previously noted seafood labelling has traditionally been somewhat minimal. However, in the late 1980s, the Soil Association in the United Kingdom produced draft organic aquaculture standards in response to requests from various fish farming operations, who wished their better practices to be recognised. Although, due to other priorities, activities were then put on hold in the United Kingdom until the middle of the 1990s, this represented one of the first moves towards the eco-type labelling of seafood products. Since then, organic fish farming initiatives have developed in, for example, the USA, New Zealand, Norway and Ireland. The International Federation of Organic Agriculture Movements (IFOAM), in its capacity as global umbrella body for organic food and farming, has drawn up Basic Standards for Organic Aquaculture, which were approved as Guidelines in its 1998 General Assembly (Soil Association 2002).

Also around the late 1980s the dolphin by-catch associated with the Eastern Pacific yellowfin tuna fishery came to the attention of the media, generating such a consumer response in the USA that in April 1990 three of the largest tuna canners adopted a dolphin safe policy, followed quickly by others. The US government also passed legislation on the labelling of canned tuna as dolphin-safe. The concept and labels spread quickly to other parts of the globe, even though some of the tuna species labelled had no natural association with dolphins (as with Skipjack tuna) (Anzer 1993, 1995, Pickering et al 2002).

3.3. Influence of environmental interest groups

Food safety and by-catch, however, are not the only issues facing fisheries of which consumers are becoming increasingly aware. Over-fishing and falling catches have also received media coverage. However, the development of labelling in response to these issues has been led not by consumer demand, but by environmental interest groups, concerned fisheries management authorities and commercial organisations who see traditional fisheries management measures as failing to adequately maintain stocks and supplies of fish to the market (Deere 1999). The most high profile labelling initiative to evolve out of these concerns has been the Marine Stewardship Council.

The Marine Stewardship Council was created in 1996 by Unilever, one of the world's largest purchasers of fish, and the World Wide Fund for Nature (WWF), one of the world's largest conservation bodies. The two organisations had different motivations, but both saw their future interests threatened unless the decline in fish stocks were to be halted. By creating a standard, certifying fisheries and marketing the certified products to consumers, the Marine Stewardship Council aims to encourage responsible fishing practices and to provide a chain of incentives throughout the supply chain. The first fisheries started coming forward for certification in 1999 and some of the first certified products are already in the market place: Alaskan salmon, the Western European rock lobster, the Thames Blackwater herring and the New Zealand hoki. Other fisheries are also currently going through the certification process (Marine Stewardship Council 2002).

The Marine Stewardship Council is not the only initiative along these lines. There are also other schemes looking to certify fisheries on the basis of sustainability and eco-principles, mainly in the Nordic countries, where there has been some scepticism as to the independence of the Marine Stewardship Council from its founding organisations. There are several government-endorsed schemes in development at the moment in Denmark, Sweden and Finland, for example (Krogsgaard 1999, Nordic Council 1998). It is evident that the concept of utilising eco-type labelling as a tool of fisheries management has gained some prominence over recent years, with labelling possibly here to stay, although its effectiveness has yet to be proved.

4. EVIDENCE OF CONSUMER PREFERENCE

4.1. Evidence from literature

4.1.1. Information sources: economics, marketing and psychology

Labelling schemes for marine products, even in respect of organic farmed fish, are in their infancy, and therefore evidence as to their effect does not yet exist. However, in the absence of evidence from the schemes themselves, there is a wide body of literature relevant to consumers' behaviour with respect to seafood products from which inferences and lessons can be drawn. This body of literature draws on a variety of academic disciplines, but most notably economics, marketing and psychology. A review of the relevant material can be found in Pickering *et al* (2002).

4.1.2. Two recent studies (USAA/Norway and UK/Denmark)

Of particular relevance to the topic of this paper are two recent studies in Europe and the USA looking directly at the question of the quality and eco-type labelling of seafood products and consumer preferences. The first is a collaborative effort between Cathy Wessells of Rhode Island in the USA and Frank Asche of Stavanger University College, Norway, which involved over 3.5 thousand household telephone interviews being undertaken over the period 1998-1999, split between the USA and Norway, targeting the consumers' willingness to buy and pay for certified cod and shrimp. The criterion for certification in this instance was that the certified seafood were caught under "strict controls that prevent too much fishing" (Wessells, pers. com. 19 April 2002).

The second study is an EC funded project, involving a collaboration between CEMARE, University of Portsmouth, United Kingdom, and a partnership of Danish institutions: the Institute of Environmental and Business Economics (IME, formerly DIFER), University of Southern Denmark, and the Danish Institute of Agriculture and Fisheries Economics, Copenhagen (DIAFE), Denmark². This study targeted 2,400 households with in-house interviews during 2000-2001, split between the UK and Denmark, to establish consumers' willingness to buy and pay for seafood products either certified on the basis of high quality or on the basis that the seafood came from a sustainably managed fishery. Six combinations of species and product form were included in the study.

4.2. Studies' results

4.2.1. General trends

The research undertaken as part of these two projects, in the United Kingdom, Denmark, Norway and the USA has revealed that, on the basis of stated preferences, while general trends and observations can be drawn, there is a lack of consistency in response to the introduction of certified/labelled products, both in terms of quality and aspects of eco-type labelling (notably, sustainability)³.

² EC Fair CT98-4255 "Market-driven Incentive Structures for Sustainable Fisheries Management", co-ordinated by Helen Pickering, CEMARE, University of Portsmouth.

³ Given the brevity of this paper and the lack of opportunity to appropriately elaborate on the studies, their results and caveats, the discussion of the findings of the two studies reported here should not be re-quoted.

4.2.2. Preferences for certified products

In both studies, consumers generally preferred the certified products to the uncertified products. In the United Kingdom and Danish studies it was found that the chosen products were almost always the certified versions, with little difference exhibited between preferences for products certified for quality and those certified for sustainability. It was also found that both frequency of purchase and quantity purchased increased when the certified products were offered. For the United Kingdom this increase reflected, in part, households who did not previously eat seafood at home, being willing to do so. This observation offers up a potential for market expansion. However, it was found that preferences and choice differed in relation to price. For example, Norwegian consumers were more sensitive to price than American consumers, although Norwegian consumers attributed greater importance to ecological attributes generally. This observation could be attributed to Norwegian consumers being more familiar with certified products and the price-premiums they can extract.

4.2.3. Preferences between species

Preferences also differed between species: the certification of cod for example, had a greater influence than that for shrimp in the 1998-1999 study. In the 2000-2001 study, there were marked differences in consumers' willingness to pay between different product forms, being generally less willing to pay a price premium for the cheaper, more convenience-type product forms. In both studies, it was evident that there was little consumer awareness of the state of the respective fisheries or issues in aquaculture, their perceptions having little basis in reality.

4.2.4. Country-specific variabilities

Household and consumer characteristics (such as household budget, income and gender) also influenced the consumers' choice of certified product, how much they would buy and how much they were prepared to pay, although not necessarily in a predictable manner, nor consistently. There was a marked country-specific variability in the influence of household and consumer characteristics on consumer preferences and choices.

4.2.5. Levels of consumer trust

Of particular interest for the Marine Stewardship Council, it was found that the nature of the certifier was a factor in consumer choice, reflecting the level of trust held by the consumer in the certifier. In the USA and particularly, Norway, trust lay with governmental certifiers rather than with the alternatives presented, notably the Marine Stewardship Council and World Wide Fund for Nature. In Denmark, the opposite was found.

4.2.6. Importance of labelling of seafood origin (wild/farmed:domestic/foreign)

Of particular relevance to aquaculture, it is pertinent to expand on two other aspects of the study conducted in the UK and Denmark, which did not focus solely on quality and sustainability labelling. Other aspects of seafood labelling were also included, in particular, the origin of the seafood: farmed or wild caught and domestic or foreign. Under European legislation, all seafood products should be labelled in one of three ways: 'caught at sea', 'caught in inland waters' or 'farmed'. Unfortunately, as was found in the UK and Danish surveys, consumers' have a general preference for wild caught fish over farmed fish. Research carried out by Omnimas/Taylor Nelson Sofres for the Seafish Industry Authority has also shown this to be true, revealing that consumers have 'overall negative attitudes' to fish farming, viewing the products as less natural. It is such a strong perception that there is great reluctance among retailers, particularly in the UK, to label their fish as farmed, as there is an anticipation that sales will plummet. The retailers have been trying to use alternative wording to 'farmed fish' to provide a more positive image, but this procedure breaks EU regulations. To expand on this point, it seems that, given the number of food scares surrounding invasive farming practices in Europe

in recent years, consumers are not very happy to have their food 'mucked around with'. The GMO debate is at the extreme end of this trend.

In terms of the domestic and foreign origin of seafood, it was found that UK consumers would choose domestically caught or sourced seafood over seafood caught or sourced abroad. In contrast, Danish consumers chose foreign caught or sourced seafood over domestic supplies. A large proportion of Danish catches are exported, not destined for the domestic market, and consumers may be aware of this. These findings, however, have implications for imports, especially from regions which consumers associate with lower food standards and health concerns.

4.3. Findings from University of Stirling study

In addition to the two studies just mentioned, a third study is of particular relevance to labelling and aquaculture. This study is also a EC-funded project, on this occasion focusing on consumers' attitudes to organic fish in various countries in Europe (EC FAIR CT98-3372 "Organic Salmon Production and Consumption: Ethics, Consumer Perceptions and Regulation") coordinated by James A. Young, University of Stirling. This study found that whilst moves towards making fish farming more organic were welcomed by European consumers, there were mixed reactions to the use of the 'organic' label on farmed fish. In particular, committed organic consumers regarded the semi-intensive farming practices, use of cages and cage loadings as being incompatible with the 'organic' principle. It should be noted that the interpretation of the term 'organic' varies between labelling schemes and consumer groups. The debate over the legitimacy of applying the 'organic' label to farmed fish is legitimised by the certification agencies⁴, who stress that their standards for 'organic' fish farming are 'interim' and could see further restrictions. There is concern among the organic movement that the trust they have built up with consumers could be undermined by the less rigorous standards currently applying to 'organic' fish farming.

5. CONCLUSIONS

The findings of these studies reveal the potential for developing market niches for certified seafood products, both in terms of quality and sustainability. However, the opportunities are not universal, with distinct country-specific influences and product form variation, so that the use of certification as a fisheries management tool has its limitations. Also as noted, given the very recent introduction of certified products into the market place, these findings have yet to be tested in reality. For robust conclusions to be drawn, the stated preference techniques utilised in these studies would need to be supplemented by revealed preference analysis once certified products have gained some market exposure. Irrespective of effect, however, at least in the short-term, seafood quality and eco-type labelling looks likely to develop further.

⁴ For example, the Soil Association

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