

Italian consumers' attitudes towards small pelagic fish

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1. Introduction

In recent years deep changes in lifestyles and consumer's choices of agro-food products have significantly altered the markets' structures, both in terms of the organization of the production and the management chain-wide marketing and distribution.

Nowadays, the agro-food products demand structure and trend in Italy show with increasing evidence, the consumer's attention to the intrinsic quality, safety, sanitary, organoleptic and nutritional properties of fresh products. There is also an interest in functional characteristics coupled with high-level processing and service content products, without failing the interest in prices, disposable income and its distribution variation effects.

Added to this, it is important to consider consumers' increasing interest in the "new" demand determinants such as health care, environmental protection and rural areas specificities enhancement, as items that are confirmed by the consumers' endless preference for organic and typical products. In the same way and during these years the consumption of seafood products has been influenced by new trends and changing needs, aimed at reaching a greater supply differ-

Abstract

The paper intends to point out the characteristics of modern consumers' behavior and perception towards small pelagic fish and the knowledge of the product in terms of its nutritional elements, target market, structure of processing and marketing elements in order to evaluate types and quality of information available along the supply chain.

The study aims at understanding the demand determinants, consumers' motivations and expectations in terms of quality, safety, health measures, traceability, availability and product innovation level.

Qualitative analysis was used based on the focus groups method, administering a specific questionnaire on a territorial basis.

The results indicate some strategies for commercial exploitation of small pelagic fish in order to enhance the level of quantitative and qualitative satisfaction of consumers' demand for these fish species.

Keywords: small pelagic fish, consumer behavior, focus group.

Résumé

Dans cet article, nous allons passer en revue le comportement et la perception du consommateur moderne vis-à-vis des petits pélagiques, et sa connaissance du produit sur le plan des caractéristiques nutritionnelles, du marché cible, de la structure de la transformation et des éléments de marketing, afin d'évaluer les types et la qualité des informations disponibles sur la chaîne de distribution.

L'objectif de cette étude est de comprendre les déterminants de la demande, les motivations du consommateur et ses attentes à l'égard de la qualité, de la sécurité, des mesures sanitaires, de la traçabilité, de la disponibilité et du niveau d'innovation de ce produit.

L'analyse qualitative est réalisée en ayant recours à la méthode des focus groups, qui consiste à proposer un questionnaire spécifique sur une base territoriale.

À la lumière des résultats obtenus, il est possible d'avancer des stratégies commerciales pour les petits pélagiques, visant à augmenter le niveau de satisfaction quantitative et qualitative de la demande de ces espèces de poisson par les consommateurs.

Mots-clés: Petits pélagiques, comportement du consommateur, focus group.

entiation related to variety, choice, availability and quality of fresh and processed product.

In particular, the consumption of seafood products has consolidated its connotation of "prestige", confirming the consumer's preference towards a rational, attentive, informed and very strong health-oriented food behavior.

In Italy, seafood products are still connected with a defined idea of expensive items, to be eaten fresh, or outside home on holidays and special occasions, as often considered difficult to prepare and store.

According to ISMEA estimates, in 2010, the national fishery sector accounts for only 4.9% of the total value added of the Italian agro-food production, a sector that maintains some structural critical factors made much more severe by the deep Italian and international economic crisis. In fact, com-

pared to a 20.9 kg/year per capita fish consumption, only slightly below the European average pointed to 22.1 kg/year, the domestic supply amounting to 478 thousand tons meets just 26.9 % of the total demand; as a result of low productivity recorded by the fishing activities (-5.9% annually over the past five years), with continued strong import dependence.

In the same year, Italian imports of fish products increased by 2.5% in volume and 10.8% in value for a whole quantity that reached nearly three quarters of the national demand (ISMEA, 2010; FAO, 2010).

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However, the national fishery sector has been unable to entirely understand the changing needs of consumers and to deal effectively with foreign competition. In response to consumption increase, there has been a significant growth in fishing effort that has contributed to depleting fish stocks, to rising imports of fishery and aquaculture products from EU and extra EU Countries and, on the other hand, to developing national aquaculture in its various forms of farming (Trevisan and Mauracher, 2005).

Moreover, according to ISMEA information, families' agro-food consumptions have experienced in 2010 a relative stagnation (-0.5% compared to 2009). In this context, fish products have been particularly penalized; reduction of domestic purchases was, in 2010, 2.4%, compared with a 2% average increase of consumption prices. The trend over the medium term, however, showed a positive annual average increase (+1.6%), despite the increase in average prices that is around 2%, reversing the positive trend of 2009.

Within the aggregate, the highest increase in demand from 2005 to 2010 covered the processed products (+2.4% instead of +0.8% compared with fresh), and specially those dried, salted and smoked (+4.7%), although we should consider their marginal impact on overall fish product consumption. Frozen/frozen packaged (+3.6%), preserved and semi-preserved products' purchases grew (+2.4%).

The deep relations among the different economic systems combined with socio-political and economic integration processes offered by modern globalization have contributed only marginally to re-profiling the Italian agro-food consumptions map. Besides the common trend of food approval and imitation of different food models from other European Countries and the consolidation of the large retailers interested both in no brand and high quality products, the progressive deconstruction of traditional idea of meals and tastes goes on.

In spite of this situation, it is also possible to find out a lot of traditional and typical food proposals, with particular reference to the native fish species, based on local products, available in both domestic and regional markets.

From all these considerations, the interest arises in the analysis and identification of the best strategies for the commercial exploitation of small pelagic fish from the Adriatic sea. The aim is to enhance the level of quantitative and qualitative satisfaction of consumers' demand for these fish species.

The paper wants to point out the characteristics of the modern consumer behavior and perception toward the different small pelagic fish species, particularly in the Adriatic area, and the knowledge of the product in terms of its nutritional elements, the target market, the structure of processing and marketing of the product in order to evaluate types and quality of available information along the supply chain.

Most of all, the study aims at better understanding the demand determinants, consumers' motivations and expecta-

tions in terms of quality, safety, health measures, traceability, availability and product innovation level.

The analysis of the different final demand components for small pelagic fish has been carried out through the use of the *focus groups* method: administering a specific questionnaire on a territorial basis.

In advance it is possible to confirm the capability of the methodological analysis to highlight the key components of economic phenomena taking place in the fish markets and especially to foresee their evolution over time.

2. Method

2.1. Focus Group: a qualitative research technique

Over the past decade, focus groups have become a more frequently used qualitative technique for market research. The focus group method involves organized discussion with a selected group of individuals to gain information about their views and experiences on a specific topic. A focus group can be defined as "a group of individuals selected and assembled by researchers to discuss and comment on, from personal experience, the topic that is the subject of the research" (Powell and Single, 1996).

The main purpose of a focus group is to draw upon respondents' attitudes, feelings, beliefs, experiences and reactions which are difficult to obtain by using other methods such as, observation, one-to-one interviewing, or questionnaire surveys. Compared to observation, a focus group enables the researcher to gain a larger amount of information in a shorter period of time (Gibbs, 1997).

According to Kreuger (1988), focus groups can be used at the preliminary or exploratory stages of a study. They can also be used either as a method in their own right or as a complement to other methods (Morgan, 1988). Moreover, this qualitative technique can help to explore or generate hypotheses (Powell and Single, 1996) and develop questions for questionnaires (Hoppe et al, 1995).

The advantages of such discussions could be summarized as follows (Zikmund, 1997 and resumed later in the paper by Stokes and Bergin, 2006):

- *Synergy*: the group process generates a wider range of information than would accrue from a comparable number of depth interviews;
- *Snowballing*: respondent interaction creating a chain of thought and ideas;
- *Serendipity*: a great idea can drop out of the blue;
- *Stimulation*: respondent's views are brought out by the group process;
- *Security*: respondents are more likely to be candid as there will probably be other similar people there, and there is less individual pressure than in a depth interview;
- *Spontaneity*: because no one individual is required to respond to a question, this encourages a spontaneous response when people have a definite point of view;
- *Specialization*: a trained moderator can interview more respondents in a given session;

- *Structure*: it is easier for the moderator to reintroduce a topic not adequately covered before than in a depth interview;
- *Speed*: quicker than individual interviews;
- *Scrutiny*: can be observed by members of the research team.

Although focus group research has many advantages, as with all research methods, there are limitations: there is less control over the produced data than in other quantitative techniques. Moreover, focus groups are limited in terms of their ability to generalize findings to a whole population, mainly because of the small number of interviewees that are not a representative sample. Furthermore, because of its nature, focus group research is open-ended and cannot be entirely predetermined.

Another limitation of focus groups is that the moderator has to allow participants to talk to each other, ask questions and express doubts and opinions, while having very little control over the interactions other than generally keeping participants focused on the topic (Gibbs, 1997).

From a practical point of view, focus groups can be difficult to assemble. It may not be easy to get a representative sample and they could discourage certain people from participating (who are not very articulate or confident).

As regards the organization, the recommended number of people per group is usually six to ten (Zammuner, 2003). It is not always easy to identify the most appropriate participants for a focus group because if a group is too heterogeneous the differences between participants can make a considerable impact on their contributions. Otherwise, if a group is homogenous with regard to specific characteristics, diverse opinions and experiences may not be revealed (Gibbs, 1997).

The duration of a focus group usually ranges from one to two hours. Neutral locations can be helpful for avoiding either negative or positive associations with a particular site or building (Powell and Single, 1996).

2.2. Survey design

The analysis was carried out through seven focus groups on consumers and casual/no consumers of small pelagic fish held in four cities distributed throughout the national territory in order to capture possible distinctions in habits and differences amongst consumers coming from the North, Centre and South of Italian,

Table 1 - *Regular Consumers and Casual/No Consumers groups composition.*

Family	WGS *	Gender	Age
Single	Yes	M	35-45
Childless couple	Yes	F	35-40
Dependent children	No	F	28-30
Couple with kids (age 0 to 12)	Yes	F	35-45
Couple with teens (age 13 to 18)	Yes	M	50-55
Housewife	Yes	F	50-55

* Member of the family usually in charge of weekly grocery shopping.

coastal and inland cities; thus, the focus groups were conducted in Milan, Bologna (inland cities), Venice and Bari (coastal cities) in 2011. The participants' characteristics, identified *a priori*, are listed in table 1: groups are heterogeneous and composed of six people, in order to gather opinions from different strata of the population; it contains also the survey costs (Zammuner, 2003).

The main distinction between these groups is based on the frequency of the purchase of fish: in particular, "consumers" were defined as those who eat anchovies, sardines or mackerel at least once every two weeks and "casual/no consumers" were those who buy them twice a year. The selection of participants was performed according to: family composition (single/childless couple/couple with children or teenagers/dependent children/housewives), purchasing habits, gender and age.

Following the definition of the sample, guidelines were established for the two types of focus groups (table 2). At the beginning of the discussion participants were asked to write down their consumption (positive factors) or non con-

Table 2 - *Focus group discussion framework.*

	<i>Regular Consumer</i>	<i>Casual/No Consumer</i>
Introductory question	<ul style="list-style-type: none"> You have been chosen because you eat small pelagic fish at least every two weeks. Would you please write down your purchase motivations? 	<ul style="list-style-type: none"> You have been chosen because you eat fish less than twice a year. Would you please write why you do not eat small pelagic fish?
Transition questions	<ul style="list-style-type: none"> Where and how often do you buy small pelagic fish? Which species of this category do you buy? Which type of product do you normally buy (fresh, frozen or ready meal)? 	<ul style="list-style-type: none"> Have you ever tasted small pelagic fish? Which kinds of fish do you normally buy? How do you choose the fish you buy?
Key questions	<ul style="list-style-type: none"> What are the factors that guide your choice when buying small pelagic fish? Where do you eat small pelagic fish normally? What do you know about this product? Do you know how it is produced? 	<ul style="list-style-type: none"> Would you eat small pelagic fish at the restaurant if offered? Would you buy small pelagic fish ready meals? If so, which one would you prefer? What do you know about this product?
Ending question	<ul style="list-style-type: none"> What are the factors that prevent the purchase of small pelagic fish? 	<ul style="list-style-type: none"> What do you think could be done to promote small pelagic fish consumption?
All things considered questions	<ul style="list-style-type: none"> What do you think could be done to promote small pelagic fish consumption? Could you propose any product innovation? Do you have any ideas on product communication? 	<ul style="list-style-type: none"> What do you think on small pelagic fish consumption in fast-food or wine bar?

sumption (negative factors) of the product. The discussion opened with transition questions, introducing the topic, and with the intention of understanding fish consumption habits and knowledge of small pelagic fish, while for casual/no consumers, questions were concerning memories of their last consumptions. The key questions were on the perception and mode of consumption of small pelagic fish, or on the prospect of consumption in the case of casual/no consumers. The final questions were aimed at collecting suggestions for the re-launch of the product.

3. Results and discussion

3.1. Consumers of small pelagic fish

Reasons for consumption

Small pelagic fish consumers declare to buy this product primarily for three reasons: its cost, sensory and nutritional characteristics. Participants recognize to small pelagic fish high content of polyunsaturated fatty acids and a good protein profile; they also mention medical studies related to special diets for acquaintances suffering from serious illnesses such as cancer or heart troubles. These factors are pronounced mostly by female subjects, while men are more attracted by the sensory sphere; strong and salty taste is the reason for product preference.

According to the consumers the small pelagic fish is characterized also by culinary versatility and in particular by the possibility of using them in traditional and regional recipes or even as a condiment. Tradition and culinary preparation seem to be linked aspects; for women, particularly seen in Venice and Bari focus groups, tradition is tied to the proximity to the sea; the prevailing consumption is still for the fresh product, while males, in Bologna and Milan, use almost exclusively the processed product (preserved or concentrated/paste). The last mentioned consumers, although in the minority, emphasize the difficulty of using fresh fish.

Consumption behavior

The product is usually purchased fresh; only in Venice there is an increase in the purchase of ready meals which seem related to regional preparations. Preferred species are anchovies and sardines, paid from 4 to 7 €/kg depending on the season. A clear distinction between coastal and inland cities is found by the place where the fish is purchased. Consumers in Milan and Bologna buy at mass retailers, while in Venice and Bari purchases prevail at traditional retailers; this seems to highlight different perceptions on product management in retailing.

The discussion on reasons and purchasing habits or attributes of choice suggests exclusive consumption within the family; consumers lack an instinctive attraction to places and occasions for consumption that are not homemade and traditional; when asked, they never choose small pelagic fish dishes at the restaurant; consumers claim that they might instead have them in the form of fried appetizers, or marinated anchovies, never as main course. Apart from a female consumer from Venice who says: "I possibly try a new dish or I might see how different it is from mine". The most quoted period of

purchase is during festivals or in summer, at the sea, because "you are more tempted" and "it's characteristic": an attitude prevalently seen in Milan and Bologna. Interestingly, small pelagic fish is not ordered at the restaurant because other fish is preferred, particularly bigger and valuable fish (e.g. the swordfish), contrasting the luxury restaurant image to normal homeliness. This is found among the casual/no consumers as well.

Relevant attributes for purchase

The factors that lead the customer to the choice of the product may be reduced to macro-attributes of the product and have various degrees of importance. As expected, the sphere of food safety is above all aspects; all agree that the choice is guided by the freshness of the product. Especially in Milan though, consumers admit a partial inability to evaluate the freshness of the fish, which leads to the creation of a bond of trust between the person responsible for the sale and the customer. At the second place comes the origin of the product. An Italian origin is synonymous of safety and, for many, also of a higher quality; hence a product fished in the Mediterranean is fresher, more economical and environmentally sustainable.

Less relevant is the actual market availability of some species, which sometimes appear as a seasonal buying limit for sardines/pilchards. In Bari one consumer said: "When I find them (sardines, author's note) I buy them... I am sure they are good".

Potential negative factors on purchase

Interesting data can be extracted from a discussion on supposed negative features of small pelagic fish, including, quite prominently, the difficulty of preparation. In contradiction with what was stated earlier, most consumers consider the fishes size and bones as a limit for fast and convenient cooking; they also mention the smell and feel regarding the processing of fresh product, although, according to some women, the problem would be the lack of habit. Another aspect concerns taste which, as it is strong, deters some consumers, particularly the young ones. Finally, there seems to be a lack of knowledge about the product because "no one knows what it is".

Product enhancement strategies

The goal of the research is to get closer to the consumers. Consumers were stimulated to propose some product enhancement strategies as well.

Product innovation

From the perspective of innovation, it is first necessary to highlight a certain skepticism towards new products, which could penalize the traditional dimension of small pelagic fish. Moreover, small pelagic fish with high level of service seem to be not qualitatively attractive ("they soon go off"; and "it looks a bit odd" are two comments emerging in the debate on the fresh clean product). Consumers underline that the price of the product should remain low "otherwise I would rather buy something else". Products mostly enjoyed by children are meatballs, fish fingers or hamburgers, but it is necessary to

highlight a substantial lack of enthusiasm towards the transformation of the product. A product positioning strategy in new sales channels receives more appreciation, such as in fast foods or wine bar, finding a compromise between luxury consumption and habitual consumption.

Promotion and communication

Finally, it was asked how to communicate and promote small pelagic fish, a question from which three key points emerged. First, there is the need to explain exactly what small pelagic means and what its real characteristics are (origin and nutrients in particular). An idea arose: design a communication campaign with the creation of different messages targeting different casual/no consumers; in particular, consumers mention the possibility of promoting specific projects in schools, because of children's influence on parents. Following the deterrence of television programs and cookbooks, women in particular like the idea of promoting it through successful media formats or accompanying sales with dedicated recipes. One man claims that it would be useful to have medical practitioners to support nutritional attributes of small pelagic fish.

3.2. Casual/No consumer of small pelagic fish

Negative factors on purchase

A casual/no consumer of small pelagic fish was asked to justify the low purchase of this type of seafood. In all the cities, the emerged problems are the taste, a bad and strong smell of the product as well as the time and the difficulty in the preparation of the dish. In addition, consumers complain about the lack of recipes and the fact that usually in families there is someone who does not like the product, preventing the consumption to the rest of the family.

With reference to the consumption of small pelagic fish outside the home, most of the focus group participants could not mention the dishes, containing these kinds of fish, that could be found in the restaurants' menus. One consumer said that he does not order these types of fish because it is a product that one usually eats at home. This last statement accentuates the gap between home and away from home consumption, so that we could propose this distinction between "luxury-restaurant-valuable fish and normality-house-poor fish". In fact, the no consumption habit affects the consumer's ability to properly evaluate this product.

Even when the attractiveness of semi-finished products that allow time-saving was investigated, interviewees were almost unable to indicate examples of these products, except those in tins. Moreover, interviewees declare otherwise they are not willing to pay a higher price for semi-finished products, compared to fresh fish.

Consumers' knowledge and perception

The focus group participants seem to know specific characteristics of the product: low price, origin and nutritional values. The small pelagic is clearly perceived as Italian caught fish and a local product. From the nutritional point of view, all interviewees know that these species are very healthy and holding omega-3.

When participants are asked if they know who buys these species, the casual/No consumers indicate people who have more time for cooking such as retired, housewives or grandparents. It appears that non-consumers perceive this fish typology as difficult and "old-style". In some cases, they are negatively associated with food used in diets for people with health problems; consumed more by necessity than for pleasure.

Also, in these focus groups consumers were asked to indicate suggestions for this product valorization. The respondents suggested a better communication that informs about the production process (it is caught and not "farmed" fish), the low price and the Italian origin. This last characteristic could give greater guarantee of quality and freshness and at the same time would support the domestic economy. From the nutritional point of view, more explanations are needed possibly supported by scientific evidence, in order to increase the consumption. During a focus group a mother said "since we have children in the family, I purchase more organic products; learning that the small pelagics have these characteristics could convince me to buy it for my children".

Suggestions about promotion strategies were more difficult. Someone suggested the introduction of consumption incentives for workers, for example bringing in special tickets or introducing these products at the refectory and canteen. This could also bring small pelagic fish to younger targets that should be kept in focus for health educational campaigns. In contrast to small pelagic consumers, some respondents state that product innovation, in particular services for time-saving, might be interesting because "if you spend 19 €/kg for swordfish, it means that we are also willing to pay for these products".

Finally, as regards the introduction of small pelagics into new sales channels, the casual/no consumer is highly in favor of the introduction in bars or restaurants where it is possible to have an aperitif or in popular fast-food chains offering for example fish cutlet.

Conclusions

The current literature is lacking in information concerning the consumption of specific fish species. The choice of an exploratory analysis is motivated by this state of affairs. For example, the so called small pelagics, an important Italian fishery resource, turn out to be undervalued both in traditionalistic terms and relative to the exogenous forces that affect the purchasing decisions of the consumer (possibility of consumption, lifestyle, economic standards). Hence, the purpose of the analysis is to gather useful information in order to focus strategic actions whose goal is the commercial exploitation of the product (Gaviglio et al., 2011).

The research has provided information about the habits of consumption of fish products, more notably concerning the following species: anchovies, sardines and mackerels. The analysis is based on qualitative focus groups and refers to four Italian regions. On one hand, the information thus collected enables us to formulate some hypotheses accounting for the low market value of the product (related to the consumer's sphere) and the main weaknesses of the small pelag-

ic compared to alternative products; on the other hand, they help us to start developing a plan to promote this fish.

Also connected to the consumer sphere is the perception of small pelagic, as 'poor' fish, whose fresh varieties require hard cooking preparation; this seems to be due to its small size, a feature that may lead to prefer superior species, such as tuna or swordfish, and easier to prepare and still affordable, such as farmed bream and farmed sea-bass. The hypothesis of product innovation, conceived elaborate food-processing, high in service (portioned and frozen) or devised in new forms (burgers and meatballs), which imitates products that are already popular, is not advisable in this case. As a matter of fact, the members of the focus groups point out that if the sale prices went up beyond a certain threshold, more valuable and well-known alternatives would be preferred. Therefore, the "doubtful" possibility of product innovation turns out to be a further weakness of the small pelagic.

However, there are also some assets and concrete opportunities to increase the value of these species. Among the assets, we can mention some of the consumers' reasons, as presented in the focus groups; more notably, the nutritional sphere and the local origins. The health value of the small pelagic stands out among non-users: indeed, even if not detailed by scientific evidence, it exercises a certain influence on the interviewees' perception. The connection with the territory is also a recurrent theme, which sometimes emerges in the form of appeal to a typical, ancient, inalienable recipe. Among the opportunities, we can mention the lack of consideration of this kind of fish at the moment of the purchase. In this case, at least for someone, this attitude is unmotivated and therefore potentially reversible.

Another interesting aspect is the fact that species other than small pelagic are often purchased in order to satisfy one or more members of the household, who do not like the product. While this restriction may seem hardly surmountable, the fact that it is the young who do not like it opens the door to the possibility of creating projects in the wake of the nutritional education campaigns in schools. Similar projects should aim to facilitate the consumption of anchovies, sardines and mackerels, to abolish the children's barrier and to affect at the same time the non-consumer parents.

Thus, the research helps to identify three main strands of intervention: the first one concerns the creation of a brand that exploits the real "cultural designation" and certifies the local origins of the product. The second point concerns the communication and the promotion of the small pelagic. The third and most delicate one is related to the possibility to place the product in new sales channels.

Insofar as communication is concerned, a distinction is required. On the one hand, we can identify a purely promotional strategy, conveyed by testimonials chosen on the basis of the considerations of the focus groups. More notably, a combination may be appealing between the traditional background of the product and the recourse to traditional sales channels, centred on the role of the retailer (now often replaced by the mass retail channel attendant) as a guaran-

tee of the product quality. On the other hand, if the choice were made to enhance the nutritional characteristics of the product, the testimonials should be selected among practitioners in the medical area, in order to give credibility to the combination small pelagic-health.

For what concerns new sales channels, fast-food restaurants (maybe new, specialised ones) may represent a more interesting market for small pelagic than traditional restaurants; employing small pelagic as a garnish for packed salads may also be a viable project, one allowing to preserve the nutritional characteristics of this product. One more proposal, welcomed with enthusiasm, aims at promoting the culinary flexibility of the product by means of classic recipe books and specialized television programs.

In any case, the starting point for any strategy is a proper communication of the features of the small pelagic and an official clarification of the species included in this trade category. In the absence of this first step, any strategy aiming at the commercial exploitation of the product may turn out to be a mere waste of resources.

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