Market and marketing of the fish products in a small marine district: Termoli case

Maria Forleo*, Angela Di Nocera*

Abstract

The study shows the market and marketing problems of the fish products in the Termoli marine area. The direct survey carried out has underlined that the issue is not so much that of determining a market for the product, it is more the search for the most favourable market for local production. Advantages can be obtained through more efficient distribution channels and value enhancement policies that may place the product for fresh consumption in a high quality and price market segment.

1. The survey: aims and methodological aspects

This study# shows the first results of research carried out by the University of Molise at the Termoli marine area in the first quarter of 2002. The aim of the research is to carry out a wide-ranging analysis of the fishery's features, to identify its strong and weak points, the sector prospects in this area above all with regard to the employment trends. The direct survey has considered a wide range of themes including many sides and problems of the fishing industry in the fishery.

As regards the output structures we have interviewed all the vessel owners working in Termoli harbour while all the traditional retail outlets of the city have been considered with regard to the marketing. Some representatives of the local productive world have also been listened to as key witnesses of the trends characterizing the Termoli fishing scene.

In the following pages we shall deal in particular with the theme of fish product distribution in the local market.

The research we give an account of in this report is part of a current of studies the University has developed for some years; special mention is given to the direct survey of the socioeconomic features of the fishing industry, carried out in the same fishery about ten years ago with the help of the fishermen's organizations. Therefore this study intends to analyse the local situation according to a further interpretation identifiable in the analyses of the changes that have affected Termoli fishing businesses and the local fish products market in the last decade.

Perhaps it is needless to point out that the method of the direct survey, although it may be lacking in terms of generalization of results, still is the only useful methodology to highlight ways and changes which cannot be grasped through the data analyses given by the official statistical sources.

* University of Molise, Faculty of Economics, SEGES Department, Agricultural Economics Area – Via De Sanctis, 86100 Campobasso, Italy; E-mail: forleo@unimol.it

The report shows some preliminary results of research carried out by the Molise University for Termoli Fishing, Tourism and Sea Business Development and Technological Innovation Union. Angela Di Nocera drew up paragraphs 2 and 3; the remaining parts should be credited to Maria Forleo.

2. Output structures, fishing activities and techniques in the Termoli fishery

Seventy-two boats, thirty-four of which having the trawling licence, are registered at the harbour office, (IREPA data, 1999).
The direct survey has concerned boats with an average tonnage of about 44,5 GT and a power of 22 kW. Therefore they are fishing boats of considerable size, bigger than the Italian average of 11,7 GT, for a power not greater than 80 kW (ISMEA data, 1999). The output structures studied have a power even greater than the average of the Molise fleet that, however, is among the highest in Italy[1], considered the significance of the trawl fleet.
Most of the boats (about 60%) carry out coastal fishing, but there are several vessels qualified for the so-called Adriatic fishing – about one third of the total - while only three fishing boats – 9% of the total – sail on the open sea, having a deep-sea fishing licence[2].

The catch work therefore takes place within a short distance of the coastline (none of the output units carries out operations of primary processing of fresh fish) mostly using the traditional Adriatic systems: trawling (60% of the enterprises owns a trawling licence), fixed gear (25%), hydraulic dredgers (13%).

The composition of the output is related to the specialization of the boats: each gear is for the catch of some groups of species. The fishing enterprises registered at the local fishery, using mostly trawlers and hydraulic dredgers, have opted for an output of demersal species: Cephalopods, some excellent species of white flesh fish (above all hake) and molluscs[3]. Yet the number of the production units licensed to use these systems tends to lessen because of the community and state policies bent on controlling the fishing effort. Even recently the Clams Plan, passed by DM 21.7.98, has ordered a cut of the hydraulic dredger units registered at the Termoli harbour office.

The use of fishing with light has become very rare, like in the whole region of the Middle and Lower Adriatic: the use of this technique, affected by the weather conditions, is currently limited to the months when the stocks of anchovies, sardines and mackerel – the main target of this fishing sector – are most abundant. In the other seasons of the year the migratory movements of the shoals of anchovies and sardines compel fishermen to do constant shifts,

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1 Currently the Molise fleet has an average tonnage of 33 tons and a power of 187 kW (IREPA 1999).

2 *The local coastal fishing* is carried out within 6 miles from the coastline, in the waters in front of the seaside villages, by fishing boats of small tonnage and sometimes without any infrastructure ashore. It is a kind of versatile fishing, since it makes use of multiple fishing tackle fit for the catch of several species of stock, practised by family concerns, with small crews made up of no more than four people, who can put out to sea for no more than twenty-four hours.
The close range coastal fishing is carried out within twenty miles of the coast by vessels of bigger tonnage, up to 80 tons, and bigger crews (3-8 people). These are above all for the catch of excellent demersal species, using mostly the trawling system.
The deep-sea fishing, practised on the open sea, beyond the continental shelf, needs an industrial organization using vessels of considerable tonnage and bigger crews who can put out to sea for more than a month.

3 Both the systems, which are not very selective, are also used in coastal areas and are responsible for intensive exploitation of the fishing areas. Indeed they involve a remarkable actual effort (measured through the death rate of the fish species) especially in sensitive areas like the coastal ones, where there are often breeding areas and nurseries.

increasing the freight costs so as to make the activity uneconomical also considering the low commercial value of anchovies, sardines and mackerel.
In the following graphs (Figures 1 and 2) we have reconstructed the development of the fishing sector in the Termoli fishery using ISTAT data[4].

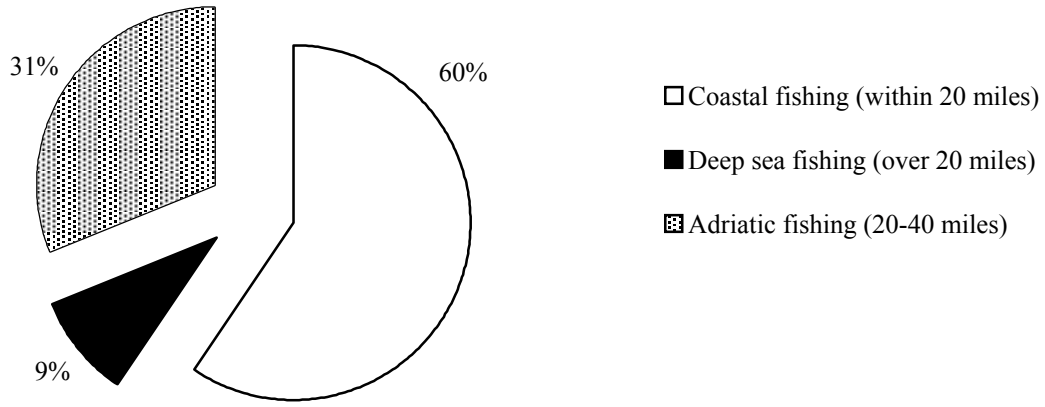

Figure 1. Impact of the different fishing typologies.

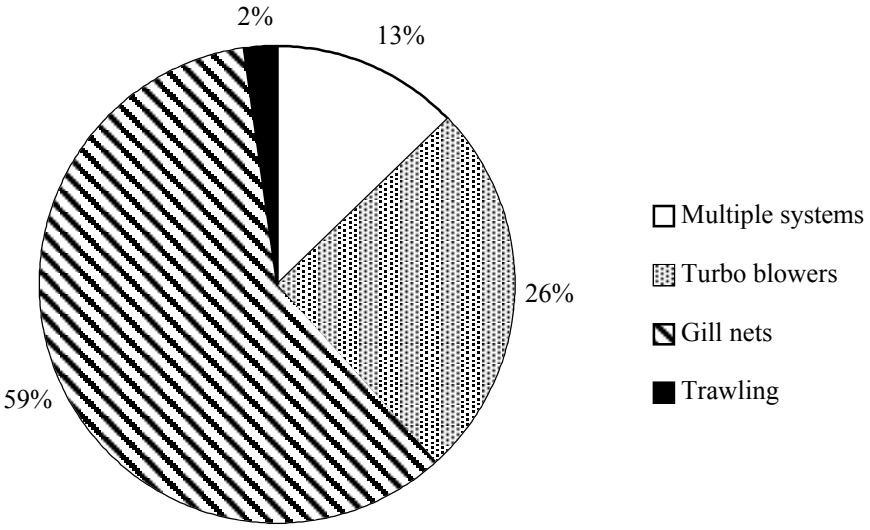

Figure 2. Impact of the single fishing systems.

[4] The National Institute of Statistics gives data about the discards, outcome of statistical findings carried out by associations directly interested in the production of information about fishing: fishermen's co-operatives, fish markets, harbour offices, "adjusted" by means of evaluations that include in the total even those quantities the statistical finding misses for various reasons. The information is divided and published by single coast, by administrative region and by harbour office. Therefore they refer to the quantities unloaded locally by the operators of the Mediterranean and Oceanic fishing industry, even though marketed somewhere else or for the direct sale or home consumption.
The data about the catches are published yearly in the book dedicated to the hunting and fishing Statistics, divided by region and species. The latter are described accurately enough– they are 47 – afterwards grouped in the following wider categories: anchovies, sardines, mackerels; tunas; other fish; squids, octopuses, cuttlefish; other molluscs; crustaceans. The same information is also given for each month of the year and, only for the big groups of species, published by single sea section. Anyway the quality of the data on the catches is related to the method of evaluation of the share of catch that does not reach the fish markets.

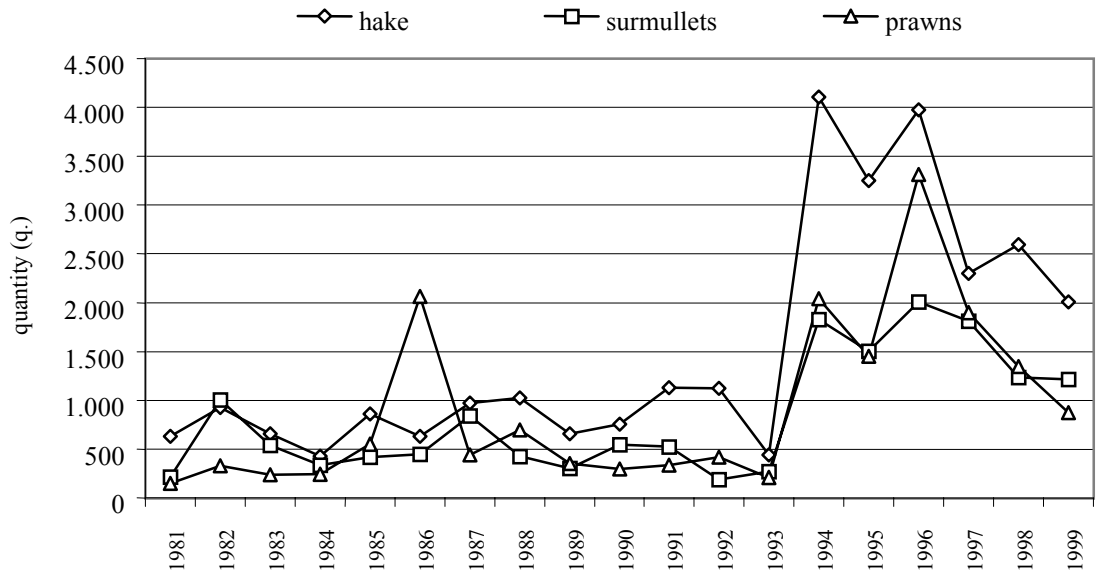

Figure 3. Termoli fishing output.

A tendency seems to be common to all the main groups of species: a rising trend – typical of the latest years – which follows a period marked by lower output levels, (Figure 3).

This is valid for the *molluscs* but for *crustaceans* and *small pelagic fish. Hake, surmullets, prawns and octopuses,* today the most interesting species for the economy of this sector, show a similar progress, (Figure 4).

The output of anchovies, sardines and mackerel (Figure 5) is marked by the usual cyclic trend due to ecological and biological factors, however known only in part. Indeed the stock of small pelagic fish fluctuates considerably, probably due to climatic and environmental conditions (changes in temperature, different input of fresh waters, changes in salinity) that affect the availability of plankton.

In particular, in the Adriatic an actual slump in the output of anchovies took place between the end of the '80s and the beginning of the '90s. Yet this slump was not due to the intensity of the fishing effort[5] and also involved in the Termoli fishery. Anyway, recent data about the catches are evidence of the reformation of the sea stock.

[5] Indeed research carried out on the stock of anchovies within the preliminary studies to the drawing up to the fishing triennial Plans calculate the catch due to fishing to the extent of 20-25% of the available biomass, therefore such that it did not jeopardize the stability of the fish fauna. On the other hand the biomass is very sensitive to the recruiting made up of organisms under the first year of age whose survival is jeopardized by unfavourable natural factors.

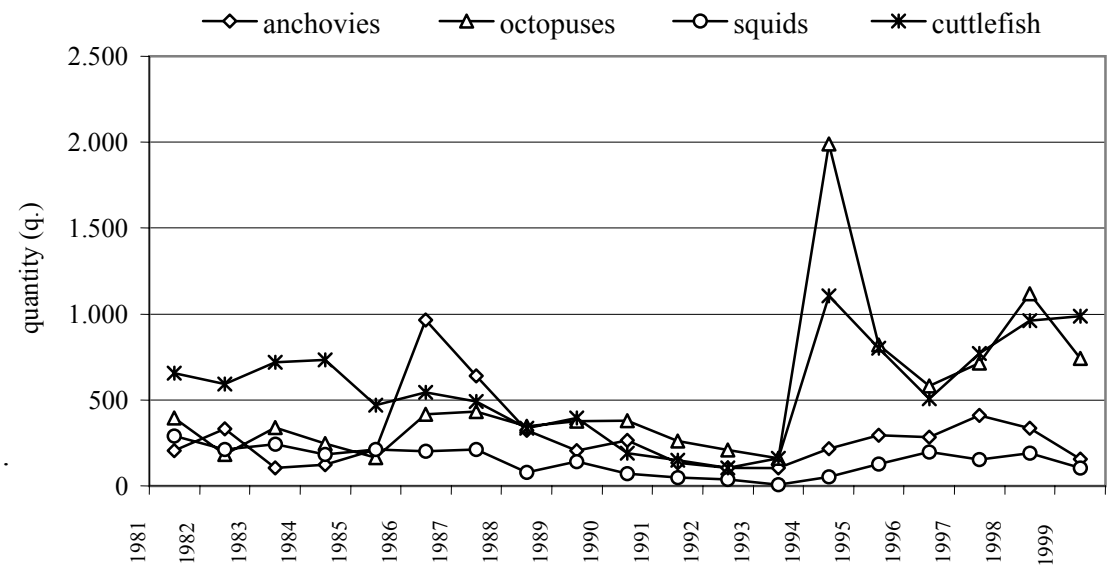

Figure 4. Termoli's marine fishery output.

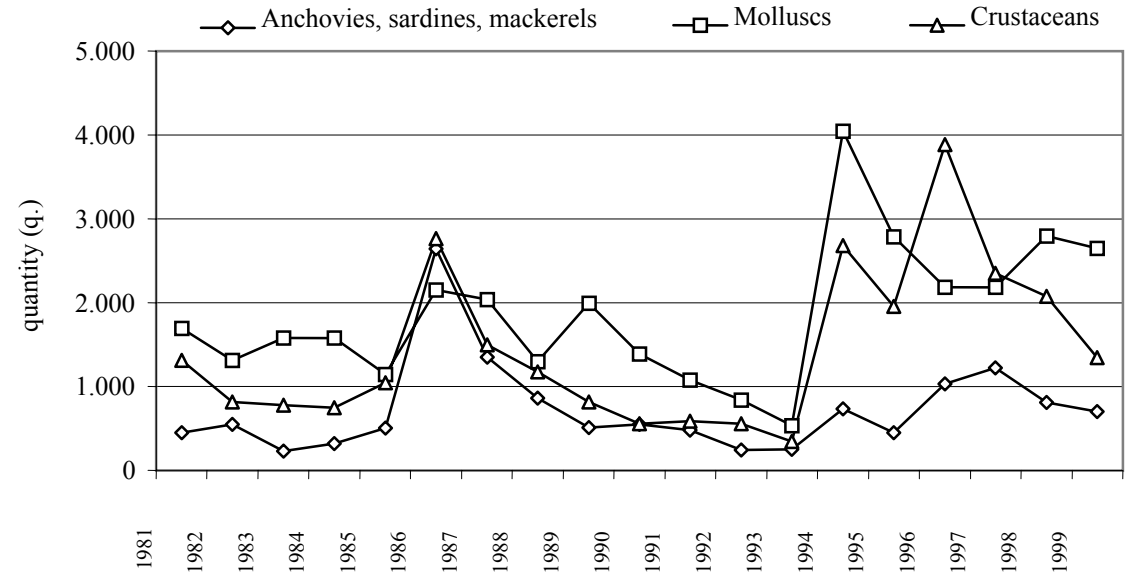

Figure 5. Termoli's marine fishery output.

3. Marketing structures and forms: first results of the survey

The research carried out on the Molise fishery also looks into this theme and, for this reason, puts a specific group of questions to the producers and a questionnaire meant for the retailers.

The survey reveals the fishermen give the task of selling their product to wholesalers or directly to retailers. The two trade channels have the same importance since each of them carries half of the output. Therefore the two trade routes are quite long and fragmented, especially where wholesalers intervene. Moreover, there are no bargaining relations between producers and the processing industry, which could increase especially the incomes related to

the sale of species with low commercial value, e.g. anchovies, sardines and mackerel, in which the Adriatic region is very abundant.

The fish outlet meets almost solely a regional demand, that mostly comes from the lower Molise (70%) and from the inland area of the Province of Campobasso (20%), while only a small share (10%) is for the home (Termoli) market.

Transactions are usually regulated verbally and, but more rarely, on the basis of a contract. The contracts determine the purchases carried out even before the fish is caught. They are purchases of fish with high commercial value and with a good market demand: squids, cuttlefish and octopuses.

Payment is mostly (more than half of the cases) made immediately, yet they grant extensions up to a month for the bigger consignments of goods.

The town market plays a "minor" role in the local fish transactions, as we infer from the importance of the sales outside the market. The structure sells a remaining share of the output, carried out by the smaller firms that, without a refrigeration system, are "compelled" to dispose of the product as soon as possible. Clearly the bonds to the structure development have not been removed entirely, notwithstanding the partial adjustment to the health rules prescribed by the EU[6]. The fish market at present gives only some basic services, car parks, stands to show the goods and packaging machinery at the users' disposal. It has got the EC recognition prescribed by the law after the renovation works even though only for the sale-room and the store[7].

Moreover, we should not forget that the negotiation method, the electronic Dutch auction, damages the sellers very much above all when there are secret agreements among the buyers to push down the price of the goods[8]. We point out that the Dutch auction method sees the auctioneer fix a starting price in order to begin the negotiations. The auctioneer offers ever decreasing prices until one of the potential buyers terminates the negotiations accepting the sale price[9].

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6 We refer to the 91/43 European Community Directive absorbed by the Italian Executive Order 531/92.

7 More information, regarding the turnover and the price of the products too, were gathered through a direct survey about fish markets, carried out by Federcopesca in 1998. From the research it does not emerge that the structure in Termoli has the systems fit to ensure even refrigeration, systems most of the market are equipped with. Therefore it is clear the need to update the market widening the range of services offered. We underline that for instance workrooms for fish manufacturing (Milan), conveyor belts or supplies of purified salt water are available in some premises.

8 We point out that the negotiation mechanisms in force at the wholesale markets are not generally very advantageous for the sellers so that they leave the fish market placing the product outside the market. For instance there is a mechanism of numbers at San Benedetto. This rule means that the ship-owner with a high number, admitted to the negotiations late in the morning, is forced to sell the very perishable product, at particularly cheap prices. This is obvious, therefore most fishermen try to find a market for his own goods as soon as the ship comes back to the harbour getting in touch directly with wholesalers and retailers.

9 It is a method used above all in the markets of the North and Centre of Italy. On the other hand in the South the upward auction is very widespread. It starts from a sort of approximate price, fixed by the auctioneer, on the basis of the offers made by the potential buyers. So the auctioneer plays an important role because he has to choose a sufficiently remunerative price.

Yet we have to underline that a part of the output, though sold through channels outside the market, later "re-enters" in the structure run by the Town Council of Termoli, which also houses the negotiations between wholesalers and detailers and between the latter and the final consumers.

The negotiations outside the market are also advantageous for the buyers who get the fish in the quantity and quality wanted, concluding agreements in advance more or less already formalized or privileged with reliable producers without competing for with other buyers nor being constrained by the rules of the negotiation in force at the structure of the town market.

Finally the direct survey made it possible to gather data regarding the last step of the distribution process, in other words the retail trade, where several small retailers work, considered the still marginal role of the large-scale retail trade. As Table 1 shows, the fishmongers' sales are related especially to the cephalopods, which are abundant in the mid Adriatic area. The species marketed in bigger quantities – calculated on the basis of the weekly average quantities sold – are cuttlefish, squid and octopus, whose sales are still quite unsteady, probably because of the extent of variability of the production. Fishmongers, for instance, state quantities of cuttlefish sold fluctuate between a maximum of kg 26 and a minimum of only kg 10. The sales of anchovy, hake and surmullet are less unsteady, species that also have a meaningful economical importance for the operators of the sector. Moreover, mackerel, gilthead, sea bass, prawn, sole, angler and swordfish are also marketed on the local market in ever more decreasing quantities.

Final consumers above all, 80% of the demand is theirs, but also restaurateurs (17%) turn to retailers who meet a solely local demand, at the most coming from the regional field.

Only a small share of the transactions becomes a formal contract (10%) or is regulated by rules (20%). Most of the sales, which involve above all final consumers, are negotiated through verbal agreements and are paid in cash and there are often negotiations settled even before the product is caught.

According to all the operators interviewed, the market of the fish products could have huge development potentials if the ties affecting its efficient running were removed. Among these, first of all there is the lack of suitable technical structures and a market demand still esteemed poor. However, the market issues are considered the most pressing among the people working in traditional retail: one out of three among those interviewed regards them as the real obstacle to the development of the fishery sector, in order of importance followed by the fiscal and technological obstacles, the labour market problems and the credit ones.

Table 1. Quantities sold at the fishmongers' in kg (weekly averages).

	Max. kg	Min. kg
Anchovies	38	13
Prawns	29	11
Squids	94	10
Cuttlefish	126	10
Cods	33	16
Mackerel	25	21
Giltheads	39	5
Soles	28	4
Anglers	21	9
Octopuses	75	17
Swordfish	11	
Sea basses	37	6
Sardines	3	1
Surmullets	41	6
Molluscs	16	9

On the other hand, none of those interviewed complained about the cheap sale prices, the problem was rather the unsteadiness of the quotations. The latter are vary greatly as they are formed by the meeting of a supply and a demand that is typically local. In particular, the production markets still work in a completely autonomous way, like islands, also indifferent to what happens in neighbouring situations. Electronic informative systems about the prices and the quantities carried could reduce the market flaws affecting its efficiency and foster a greater extent of combination of the supply, if only virtual.

4. Market and marketing problems in the fishery of Termoli

The research at the Termoli fishery, a synthesis of the preliminary results of which we show in this note, sought to analyse strong and weak points, the training and employment needs along the local fish supply chain, though analyzed imperfectly and not in a linear way because of the main elements of discontinuity that mark the route of the product. Moreover, it is better to specify that the local situation refers to the fresh business chain, being the output of Termoli fishing meant for fresh fish consumption and for a local market, at the most regional.

In the following pages we have underlined the aspects related to the market and marketing problems that characterize the fishery studied, referring to a future research report for a more detailed quantity analysis. Here we want conclude with an attempt to set the previously explained considerations in a comprehensive framework, to discuss the past evolution and the possible scenarios of development.

The distribution structure of the local fish product is the first aspect to explain outlining the market features of the Termoli fishery. Trade channels are several and fragmented, as highlighted. Producers, especially the most important ones, keep up business relations first of

all with retailers and wholesalers or, more rarely in the case of smaller firms without preservation systems, they use the structure of the town fish market.
The first results of the direct survey carried out in Termoli, which – we underline – is still under way – have pointed out aspects and problems of the fish market shared by a lot of fisheries.
The Termoli market, partly adjusted to the health rules prescribed by EU, plays a "minor" role as production market. The reasons leading fishermen to prefer the channels of the outside market are several: among these the chance to get more advantageous terms of sale and higher profit margins, not being restrained by the rules of the Dutch auction sale. There would also be the lack of quality facilities among the reasons leading to prefer the outside market. We think such argument is a minor motive as sales outside the market also cannot always ensure services connected to marketing. Passing through the market structure requires the observance of the set of rules – above all sanitary - related to the marketing of the fish products, and the risk that the survey of the transactions may have consequences on the income for fiscal purposes are two more important reasons even if not openly acknowledged.
The limited use of the fish market to sell the products implies that the bargaining power relations are essentially disadvantageous for the producers and this both because of the Dutch auction method, and because of the few buyers taking part in the bargaining who, reaching an agreement among them, can make the product prices fall to quite reasonable levels.
The satisfaction level of the backing services given to the productive activities, the marketing services provided by the local market structure meet with the lowest approval of those interviewed, if we think a good 76% of them consider the services inadequate.
In the final phase of the chain of distribution the small retailers are virtually the only supplying agents considering the still marginal relevance of the organized large-scale retail trade. On this subject we underline that, according to recent data, the nationwide large scale retail trade can absorb much larger amounts than any other retail distribution typology also in the sector of the fresh product sales and not only those which are processed/frozen. Despite the increase in size and the updating of the Termoli fleet, noticed in comparison with the previous survey on the fishery, the quantity of the local output can still be considered small to carry out a change in the distribution structure that is still linked to traditional typologies and to a local market.
The current consumption distribution shows some inefficiency anyway, if we consider that the same traditional retailers complain about the inefficiencies of a not very transparent market where several agents work. It would be interesting to understand how much of the higher prices goes to fishing and how much to distribution, at this stage of market that is marked by high and probably rising quotations, both for reasons concerning the supply of the sector (drop in the catches and increase and rising of the fishing costs activities), and for the conditioning of other foodstuffs concerning the demand.
A further problem of markets and marketing found by the operators regarding the lack of market information above all with respect to the trends of the markets and of the quotations effected in other fisheries.
It is meaningful to point out that the availability of marketing services takes priority among the services whose lack is mostly felt locally. The fishery workers go outside the region to the nearest Adriatic fisheries for the supply of the lacking services. With regard to this, the relations with the fisheries of the Marche Region of S.Benedetto del Tronto and Civitanova

Marche are more intensive than with the fisheries of the Lower Adriatic along the Apulian coast (Manfredonia and Molfetta).
Although it is a small fishery mainly interested in coastal fishing and with an offered output that does not seem to run into difficulties of production in a mostly regional market, those related to the market are among the main problems of the sector felt by about 60% of the ship-owners interviewed.
The answers to the questions regarding the professional competence and needs on the one hand and the training needs on the other hand, are also meaningful. The ship-owners interviewed indicate the market researcher as the professionalism mainly needed in Molise, after professionalism closely related to boats and to the job of catching – mechanics, shipbuilding, materials and equipment supply. As for the training needs, those related to marketing are one of the priorities felt by the Termoli operators.
It follows that the situation of the services and professionalism in the trade sector offered to the productive structures is one of the main elements of weakness of the Termoli sea-fishing industry. Indeed the trade problems are not pointed out with the same emphasis by the sample of farming firms surveyed. Even if they have bigger productive-economical sizes, nationwide outlet markets and wholesale marketing channels, they consider marketing an important field but not a priority one among the training needs of the operators.
After about a decade from a previous survey about Termoli situation, it is evident that also in this small fishery the evolution of the '90s made people aware of the strategic role of a suitable marketing of the product. They have passed from a point of view bent on the productive aspects, mainly the catching at sea, to a point of view interested in the market.
In other product sectors, this change took place contemporaneously with situations of crisis and strong productive competition. The ship-owners of Termoli also complain about the various problems the sea fishing industry is going through and which give an indication of even harder times.

5. Some general comments about the Termoli case

Although the fishing world surveyed is not important in the national scene as regards fleet and catches, we think there are some aspects common to other fisheries with similar structural features, first of all with regard to the economic-productive size. A small fishery that, nevertheless, faces more market problems than the research expected.
In the case of Termoli fishery too, the local supply has no problem in finding *a* market outlet and a demand that the quantities offered. One could think there are not very important problems as regards the market and marketing issue. Yet there is a problem and it is the search for the *best* market outlet and a demand that grants the fish product high quotations.
This is difficult because of aspects related to the supply and to the marketing system of the local output. As regards the first aspect, it has to be noticed that on average the local productive structure is characterized by low diversification with regard to the kind of fishing practised, mainly coastal and trawl fishing.
These structural features obviously affect the output. The quantities caught by the single fishing boats are not of a large size, so the supply looks fragmented at the marketing stage. Moreover, it is a basically homogenous product from a double point of view. It is homogenous as regards the local supply for what said above with reference to the kind of

coastal and trawling fishing and so to the catch areas and to the fish species targeted. This has repercussions on the local competitors. It is also relatively homogenous as regards the species of catch of the next Adriatic fisheries, among which much bigger economic-productive situations stand out. The fragmentation of the supply has some effects in shaping the distribution chain related to sea fishing. First of all, it means that the product is purchased, at least directly, by industries to be processed. It is also probable that the small size of the catch units are among the reasons that did not stimulate locally the carrying out of investments in processing systems. Other effects concern the distribution stage in particular.

As regards the marketing method of the local output, the distribution channels are wholesale and by the traditional retail while there is not modern distribution. The information available from the ship-owners does not permit us to rule out that the local output find an outlet in the modern distribution after the wholesale stage. Obviously this extends the distribution chain and goes beyond fishing in the process of value enhancement.

All these elements, together with the ties deriving from the fresh consumption use of the product, place the fishing businesses in a price-taker position and characterize the whole sector with a structure that partly recalls the theoretical competing pattern.

One of the possible ways generally suggested in the marketing branch is the differentiation of the product on the basis of its quality, in the attempt to gain some margins of power in the pricing and in the bargaining relations with the buyers. Moreover, there is far less fish product available than the domestic demand fostering a substantial and, by now, structural deficit of the home fish balance and one of the main gap items in the agricultural-industrial balance. In a situation where an increase in fishing effort and catches is not expected, the business profitability regarding revenues cannot derive from a quantity growth but from the search for the best chances of improving value and payment of the products.

Ideas like quality and improving value have appeared more recently in the fishing industry than in other agricultural -industrial sectors also with the trend of greater interest in the themes of food safety and consumer transparency.

Value improvement strategies through seals of quality can give a differentiation of the product and answer the requirements of transparency and information about the place of origin and quality of the product. Requirements which have not been properly met so far and which are among the factors depressing fish product consumption.

Greater profitability for the producers can be related to differentiation if the value improvement policy is carried out directly by the fishing workers, not as much individually, as by an association of local producers. Such a statement is not only related to the need to gather a minimum amount of output to justify the charges of value improvement and which may meet the demand with a suitable amount of supply. Indeed, the placing of the product in a segment of high quality needs a high price level to be consistent with the quality standard and also to cover the costs of the policy of value improvement. The chance to raise the prices of the fresh products for final consumption should be compared with the elasticity of the demand. It would be better try to gain a greater share on the distribution margin, more than to count exclusively on a further rise of the final price, considering the high quotations of the products of fisheries catch on the fresh consumption market. Such an attempt can have some chances if the trade partner is associative rather than a single business or if some steps of the distribution are removed.

In the case of the outlet of catches for fresh consumption some factors to play on for the value improvement can be related to the origin/typicality of the resource, to the origin/traditional

type of the product consumption or processing. Other factors of quality can be related to the methods to catch, to preserve, to process the haul in different ways: a quality connected to nutritional features, or to the observance of high sanitary standards in the catch and manipulation of the product, or to a quality tied to the respect of conditions of environmental tolerability and of responsible behaviours in the work of extraction of the resource. It is obvious that such factors can also be combined. However we think that fish product labelling, of recent regulation, prompted by needs for transparency and determination of the product is an essential yet minimal condition from a more comprehensive point of view of value improvement.

Whatever levers are used for the value improvement of the product, it is obvious that a successful strategy of value improvement leads to greater profits; the more single or associated concerns can carry out it in advance and not imitating the competitors.

It is important that the value improvement levers exist in all the steps of the chain of distribution of the fresh product to ensure the consumer a quality product along the entire route from production to consumption. The quality of the distribution chain requires the involvement of the operators in the different steps and the investment in the productive process, in the organizational methods, in the marketing policies to be carried out by concerns in partnership, but also by fisheries and if necessary along the coast.

The sensitivity of the fishing operators has increased compared to the previous surveys. As a result of the survey carried out, the issues related to marketing have appeared with different outlines: as main problem area of the sector and obstacle to development, as basic typology of service for the concerns, as successful critical factor, decisive to outline the future trend of the sector. We cannot rule out too much or unaware "confidence" in the commercial aspects, but certainly it is one of the levers that can influence the socio-economic development of the local fishery and of the whole sector.

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