EBHA 22nd Annual Congress
Università Politecnica dell Marche Ancona, 6-8 September 2018

Business strategies in the Spanish Fish Canning industry from Franco's Autarchy to the 21st century

Xoán Carmona, University of Santiago de Compostela (xoan.carmona@usc.es)

1.- Fish canning industry in Spain from their beginnings to 1959: a local resources based industry

The first Spanish fish canning factories were established around 1840 in Asturias and Galicia, which is to say very little later than the French iniciators[1]. In the following three decades the fish canning industry spread to the Basque Country and Cantabria, so that by 1880 there were already some 40 establishments that made canned fish in Spain, all of them in the North and Northwest regions. In this initial phase of the industry, the firms were more craft workshops than factories. There was no specialization, and all kinds of marine products (hake, sardine, sea bream) and even vegetables were processed, often in glass jars for lack of tinplate. These first factories sold to the Navy, to the shipping companies and in some of the main Spanish cities, as well as in the colonies of Cuba and the Philippines[2].

The real development of the preserves as an industrial sector took place between 1880 and 1905, linked to two factors. On the one hand, the achievement of a sufficient supply of tinplate and olive oil in the Spanish market; on the other, the shortage of sardine in the Brittany coast in the 80s that offered to other rich sardine regions like Galicia and Portugal the opportunity to foster their own industry. French canners tried to settle directly or to associate themselves with Galician and Portuguese entrepreneurs to manufacture sardines in cans for export under French brands. In this way they offered markets and technology and this meant the starting point for the sector in the two Iberian countries

The French influence was the main one, and was the one that guided most of the new Spanish industry towards the canning of the sardine. Galicia, which had a long tradition in the fishing of this cupleid, became soon the first Spanish canning region. But if the French influence was present especially in Galicia and in the field of sardine canning, in the development of the Spanish canned tuna and bocarte the influence was Italian.

Italians were the ones who established the first tuna canning factories in the Portuguese town of Vilareal do Santo Antonio in 1879, and then in the Andalusian provinces of Cádiz and Huelva, where important tuna traps had existed for a long time[3]. First the Italian businessmen and soon

---

[1] Marie d'Avigneu (1958); Dubois (2005)

[2] Carmona (1985, 1995); Escudero (2000, 2007); López Losa (1997); Ocampo (1999); Ríos (2005)

[3] Ríos (2002, 2005)

other Spaniards were leasing these last ones and establishing factories specialized in bluefinn tuna canning for its majority export to Italy under the brands of that country. They soon started to can also sardines, so the region joined Galicia and the Bay of Biscay in the group of the canning regions.

Italian businessmen also influenced the first development of the industrialization of anchovy in Cantabria, Basque Country since 1886[4]. They settled in Basque ports such as Bermeo, Ondarroa and Getaria, and Cantabrian as Castro Urdiales, Laredo and Santoña. At first they just salted the fish and sent it in barrels to their country of origin for further processing. But in the nineteen twenties some entrepreneurs - now both Italian and Spanish - first began to fillet the anchovy and pack it in oil in small-sized cans, what is known as semipreserves . At that time, the anchovy business was spread to the ports of Galicia and Asturias.

Both tuna preserves from West Andalusian coasts and the Basque and Cantabrian anchovy, were destined in their overwhelming majority to export to Italy, so that packaging and brands imitated the patterns of production in that country. In this way, if the sardine was marketed mostly under French labels, tuna and anchovy did so under Italian ones. And in both cases this was the case even when in the following years the sardine or tuna processors were already acclimatized or completely local businessmen.

The Spanish fish canning industry is around 1905 a consolidated sector. The most important production is that of the sardine, followed at a certain distance from that of tuna (tuna and bonito). It is a work intensive industry, but is already taking some steps towards the mechanization of its processes, specially in the making and seaming of the cans[5]

The growth of this industry was quite irregular between 1905 and the years of the Great Depression. The worst moments were the two sardine crises that occurred in 1909-1912 and 1924-1926, which resulted in falls in production and two major waves of bankruptcies. The main factor of momentum during this period would be, on the contrary, the outbreak of the First Great War. The Spanish neutrality allowed to sell this product to several of the contending countries, which triggered companies profits. In fact, while the prices of tinplate and oil multiplied between 1913 and 1918 by figures that ranged between 1.3 and 1.5, the price of canned sardines did it by 2.6.[6]

On the eve of the Great Depression of 1929 the Spanish fish processors had already become independent of the French and Italian brands and wholesalers. The main line of its manufacture was still the sardine, which for the most part was exported to France and Latin America. The

[4] Escudero (2000, 2007)

[5] Carmona (1995)

[6] Carmona (1990)

average size of the companies had grown and some of them had several manufacturing plants, fishing boats, can factories or sawmills. Mechanical seaming was generally adopted in almost all the sector in this period and the most advanced factories also had oilers and other small machines moved by steam or electricity whereas the tasks of cutting and preparing the fish remained manual throughout the sector.

The Great Depression would mean a turning point in the history of the Spanish canning industry. Affected by the contraction of international trade, it was forced to reorient towards the domestic market. The outcome was a success in terms of sales, since by 1934 slightly more than half of those were already sold in Madrid or Barcelona and not in Buenos Aires or Genoa. The economic results were, however, very different, since the redoubling of competition in the domestic market accelerated the fall in prices. One in four companies in the sector went bankrupt between 1929 and 1934[7].

The military uprising of July 1936 and the subsequent Civil War opened a contradictory stage for the canning industry. The factories of Asturias, Cantabria and the Basque Country, suffered much more the war than those of Galicia or Western Andalusia (Cádiz and Huelva), regions in which there was hardly any type of combats. Fascists soon noticed the strategic nature of the canning industry that could contribute, on the one hand to the supply of proteins for the military front, and on the other, to obtain foreign currency with which to help finance the war. In this way, the manufacture of preserves had all the possible support from the military, as well as remunerative prices that encouraged its expansion. This caused a very strong growth in corporate profits and an avalanche of new companies in the sector, many of them marginal ones[8].

But once the war ended Franco's governments adopted an autarchic and interventionist policy that affected the sector very negatively. Mandatory deliveries and regulated prices in the domestic market and shortages of raw materials, which were subject to quotas, along with a heavily overvalued peseta brought down exports. In the domestic market, fish preserves disappeared from retail stores and their supply, even in the production centers themselves, was restricted to that of the black market. This situation was maintained throughout the decades of the 40s and most of the 50, aggravated even from 1945 by electrical restrictions and the lack of sardine on the Galician coast between 1946 and 1956.

2.- The end of the Autarchy and the path of tropical tuna

Two decades of war and strict regulation had a very negative effect on the industrial organization of the Spanish canning trade. Many marginal firms, created in the years 1937 to 1941, found in the quota of tinplate and olive oil a life insurance that guaranteed its survival. In a state of

[7] Carmona (1990, 1995)

[8] Carmona and Fernández González (2001)

shortage like that of the forties this survival for all meant maintaining artificially marginal enterprises at the expense of restricting the production of the most efficient. The average production per company fell sharply in relation to the pre-war situation, the largest companies found disproportionate assets for their billing possibilities[9].

The Stabilization Plan of 1959 is generally regarded as the representative milestone of the end of the Autarchy. From then on, the strict intervention and regulation of the economy began to relax. The Spanish economy seemed to open itself to the outside again. The fish canning industry was then in a very difficult situation. It had lost its traditional foreign market, had been technologically stagnant for two decades and remained dependent on fish resources in the vicinity of factories. During the years of self-sufficiency, it had successfully begun to use some new raw materials, such as mussels, to soften the effects of periodic sardine shortages, but in any case the resources that could be put in cans were all close to the coast. These were resources that in some cases were on the edge of their maximum sustainable yields, which implied problems to increase catches. Resources had also a high seasonal component, and were very variable from year to year, which represented a high risk of occasional situations of excess capacity in the factories. All this had discouraged the specialization and the realization of investments in machinery and promoted very simple strategies to cover those holes by working different species at different times of the year or when the main species were scarce.

The opportunity represented by the timid opening of the early 1960s produces a movement in this branch of the industry aimed at regaining lost momentum. Starting from very low levels, there will be an important growth during that decade based on the Canary Islands sardines[10], Andalousian mackerel, Bay of Biscay anchovy and Galician mussels and cockles. But these initiatives did not break with the seasonality or the dependence of species that soon reached situations of overexploitation. Therefore, they could not be the basis for the establishment of a new and renewed canning branch able to cope with the growth of demand caused by the economic development of the sixties and by the massive entry of tourism into the Spanish Mediterranean coasts. And even less to recover the foreign markets again.

Some tuna species, such as bonito (Thunnus alalunga), also called albacora, or bluefin tuna (Thunnus thynnus) were part of the Spanish canneries catalogues since the late nineteenth century. But the 20 or 30,000 annual tons of these species captured by the Andalusian traps or the Basque or Canary baitboats could be - as they had always been - a useful element to cover a traditional internal consumption but not the lever for relaunching the Spanish canning industry in the sixties. On the one hand, in terms of quantities, because on this internal supply, which also had to cover the fresh consumption, could not be based an industry with a scale enough to

[9] Carmona and Fernández González (2005)

[10] Díaz de la Paz (2012)

justify mechanization[11]. On the other hand, in terms of prices: the expansion of the demand for albacora and bluefinn tuna would trigger prices and would place the final product as an almost luxury one. The source that would come to provide enough tuna catches to convert this scombrus into the base of a renewed canning industry could not be the one of the traditional species. It should be a new fishery, that of the tropical tuna that had began in the late fifties and it develops in the following two decades.

The use of skipjack tuna (Skipjack / Katsuwomus -Euthynnus- pelamis) and yellowfin tuna (Yellowfinn / Thunnus albacares) in the canning industry had already become widespread in California towards the end of the First World War. At first catches came from adjacent waters but in the following decade a new type of vessel, the so called tuna clipper, could sail southbound making tides of thirty and more days[12]. Those kinds of tuna were a much more abundant fish and whose prices were well below those of the traditional bonito. This transition from the traditional tuna to the new and distant one, occurred in Spain with a lot of delay over the cited case of California[13]. But if, on the contrary, we compare it with France, the other European country that was soon interested in this type of tuna, both countries started to fish tropical tuna almost simultaneously.

The improvement in the supply of yellowfinn and skipjack tuna should enable the increase in canned production. And, even more important, the fact that this new raw material could arrive frozen at the canneries offered them the possibility of keeping it in their refrigerators and go working it throughout the whole year. This would permit breaking the seasonality typical of the traditional canning industry, which worked each species only during the months of its coastal, thus leaving a dead time that caused a strong underutilization of facilities and a difficult absorption of fixed costs[14]. Finally, the abundance of the scombrus would allow to advance in the direction of converting it into the axis of canning production, with the advantages that this species offered from the point of view of technology and the organization of work in the factory. The tuna offered by its size, a better ratio between food and waste than, for instance, sardine or mackerel. For its greater consistency and homogeneity and for its organoleptic characteristics it was the species that had a more advanced technology available for the mechanization of its processing. The combination of continuous activity throughout the year with a significant increase in the mechanization of work came to constitute a kind of second revolution in the industry, the coming of mass production.

---

[11] Garavilla (1984)

[12] Wolff (1980); Smith (2012)

[13] Smith (2012)

[14] Vence (1989)

The development of the new canned tuna industry can be said to begin in Spain around 1965 and was closely related to two factors. On the one hand, the possibility of importing frozen tuna caught by other fleets. On the other, to the possibility of acquiring as "national " the tuna caught by Spanish vessels in Western Africa coasts. This "national" yellowfinn and skipjack did not pay tariffs when entering Spain, and its fisheries would soon extend to the Eastern coast of Africa,to the Indian Ocean and the Pacific, thus becoming the main support of a new Spanish canning industry.

3.- Business strategies in the new canned tuna industry

The possibility of using tropical tuna as a new raw material in the canning industry posed to the more than 300 companies in the sector two important issues. The first one was how to get a tropical tuna supply. Buying in the market? Does the firm integrate towards fishing by acquiring tuna freezer purse-seiners? Becoming partners in independent tuna fishing firms?. The second issue was what weight did they want to give that raw material in the firms's offer? You could choose to include it in the company's catalogue next to the sardine, the bonito, the mussels or the anchovy; or it could be given a central role, as did the large North American international leaders, which meant radically changing the production structure. This would require making the necessary investments in freezing, canning and marketing to acquire scale and be able to sell large quantities of a homogeneous product at reduced prices. The strategies defined around these issues marked the success or failure of most of the Spanish companies that existed in the canned fish industry at the beginning of the 1960s.

In the first years after the Stabilization Plan of 1959, very few canning companies considered buying freezer tuna purse-seiners by themselves, since this represented an important investment in a risky environment. There was only one exceptional case, such as that of the Biscayan firm Serrats , but it was a short-lived experiment[15]. The bulk of the Spanish canneries opted in the sixties by the purchasing. The problem was to whom?

Although already in the previous decade the Spanish fishing fleet was one of the largest in Europe, its action extended only by the Northern Hemisphere, so that they had never fished yellowfinn or skipjack. Tuna purchasing in the international market was practically impossible under the Spanish foreign trade regulation of the fifties. And though in the early sixties, thanks to the timid liberalization in course, some processors achieved permissions for importing Japanese tuna on the basis of temporary admission (draw-back) regime, administrative pitfalls spoiled any chance of making imports a reliable source of tropical tuna for the industry for two decades[16].

---

[15] Escudero y López Losa (2001)

[16] Carmona (2017)

Given the difficulties to import the tropical tuna caught by foreign vessels, some canners had already noticed that it was easier to encourage the Spanish fleet to fish for that tuna than to buy it in the international market. First steps in that direction were taken by a group of Canarian fish processors that offered to the pole-and-line vessels of Bermeo, the possibility of moving to the Gulf of Guinea in the winter months , between the end of the bonito fishery until the beginning of the anchovy. By this agreement that was in force from the 1956-57 to the 1959-60 season, the canners advanced the campaign expenses and guaranteed the purchase of the fish. The only novelty the Bermean vessels introduced compared with their fishing system in the Bay of Biscay was the use of live bait. But the important thing was that it was the first Spanish experience in the work of tropical tuna[17]. From 1962, the Bermeans would broke their exclusivity with Canarian canners and started selling to American firms such as Van Camp and Overseas Discount, to Italian companies, and above all to a group of Galician packers that perceived that the new tuna was the future of the industry[18].

These first contracts had, from the quantitative point of view, a small relevance, since catches by this pole-and-line Bermeo fleet amounted for just three or four thousand tons annually. But it was important because it prompted some of those shipowners to start a process of substitution of those traditional vessels and gear by larger fishing units, built in steel, using big purse-seines and equipped for freezing the catches[19]. In reality, it was a matter of following a fishing model, that had been developed by American and Japanese firms for some time, the one of the tuna freezer purse-seiners, that were now beginning to be used by some French firms who were also fishing in the Gulf of Guinea[20].

The new fishery grew rapidly after 1964 and in just one decade there were already 45 Spanish purse-seiners in the African coast whose catches reached 70,000 tons, a figure that more than tripled the supply of tropical tuna available at the beginning of the sixties. The condition "sine que non" behind such a growth of the purse-seiner fleet had been the authorization for that tuna caught in Africa by the Spanish fleet to be downloaded in Vigo or Cádiz as "national". "National" meant exempt from tariffs, exemption that, after some initial problems, had been definitively achieved in 1962[21]. From then on, it was much more the development of the Spanish tuna fleet, and not the importation, the source, now distant, on which the relaunching that Spanish canning industry experiences from the seventies will be based.

---

17 Ferrarios (2013); Díaz de la Paz (2012)

18 Carmona (2017)

19 Ferrarios (2013); Ugalde (2015)

20 Coubliou (2001); Le Roy, Guillotreau and Yami (2008)

21 Carmona (2017)

The canning sector was still a sector characterized by a small size of the company so vertical integration was not available to most canners. In fact, it was not even within his reach to purchase the complete items of tuna that the Biscayan baitboats had been placing in Cádiz or in Vigo since the early 1960s. In 1965, this had led to the formation in this last port of a purchasing cooperative destined to carry out the acquisition of complete vessels to be distributed among the partners, under the name of Facore (Fabricantes de Conservas Reunidos). In 1969 a similar plant would also be formed in A Pobra do Caramiñal, another center of the Galician canning industry. This last company, Fripusa (Frigoríficos de la Puebla, S.A.), would be dedicated not only to the realization of collective purchases but also to the tuna freezing and storage, preventing its members from incurring the corresponding fixed assets. Facore and Fripusa allowed medium-sized canners to guarantee the supply of a raw material that for some was a complement to their activity, but for others like Jealsa, Escurís or Friscos (partners of Fripusa) it was becoming the axis of their business

Most of the tuna freezer purse-seiners built in Spain in the sixties and early seventies had been for new companies created by ship-owners and skippers from Bermeo who had participated in campaigns in the Gulf of Guinea. In front of Facore or Friupusa, which grouped the buyers of the tuna, the owners of the purse-seiners soon joined the Cooperativa de Armadores del Atún (Copatún). In this way, during the years 1965-1975 most of the tuna acquisitions by the Spanish canning industry were channeled through those cooperative institutions.

By 1975 the Spanish tuna freezer purse-seiner fleet was already consolidated and two years later canned tuna ranked first in terms of value in the fish packing industry. Canning firms faced then the second of the two aforementioned issues: how strong was their bet for tuna.

As regards this second issue four types of answers emerged. The first one was that of the smallest and the most of the medium firms, that simply did not make any bet. They continued as very diversified companies, trying to adapt to the supply seasonality of raw materials (sardine in some months of the year, mussel in others, etc.) and including small batches of tropical tuna. These companies did not really make a clear commitment and did not take risks either. Some did so because they were very oriented to anchovy, bonito or other high-priced specialties and did not see the need to go down to a lower segment such as yellowfin tuna or skipjack, which did not enjoy the same appreciation in the Spanish market nor to carry out on price strategies[22].

A second group of companies were those that tried to overcome the seasonality and increase the scale by specialising in other species than the tropical tuna, such as the imported Dutch cockle, the Galician mussel, the Andalusian mackerel, the Canarian sardine. Some of these companies had a high level of dynamism and even developed their own technologies, as was the case with deburring machines and other ones for mussel work.

---

[22] Several articles included in Carmona (2011)

The third group of companies was the one that, aware that the growth of the sector was based on tuna, decided to incorporate it into its offer, even with an important weight, but not a dominant one. Skipjack and Yellowfinn went into their catalogues as complementary to what they regarded as their traditional strength, which was, for example, albacore tuna in the case of Palacio de Oriente and Hijos de C. Albo, two brand-oriented companies located in a high segment of the market, or squid in the case of Alfageme, or the cockle in the one of Pescamar and Peña.

Finally, a fourth group of companies made a strong commitment to the conversion of tropical tuna into the axis of its future expansion. It would be the case of Luis Calvo Sanz or Garavilla from the beginning of the seventies, Jealsa-Rianxeira and Escurís a little later and Frinsa and Sálica in the last decade of the 20th century. For Calvo and Garavilla the tropical tuna was already by far the main production in 1975. All of them made heavy investments in their plants aimed to the mechanization of tuna between 1975 and 1985.

Once the tropical tuna was already firmly introduced in the Spanish market, the issue was again how to get the adequate supply. By 1975 the situation had changed a lot. Not only there were an important tuna freezer fleet but some firms had made heavy investments in new factories and machinery. To avoid the risk of supply cuts or sharp movements in prices, which would paralyze the factories or cause heavy losses, some of the strongest companies were beginning to think about vertically integrating into the fishing of what was already a main species of their activity. Those who have most decided to bet on tropical tuna will do so first. In 1974 Garavilla would become the owner of two modern purse-seiners, which marked the first initiative of durable vertical integration in this industry[23]. Calvo would follow the same path in 1979 with the acquisition of Montecelo and later four other freezer purse seiners[24]. Both companies would expand their fleets in the following years.

A more limited model of vertical integration, of a partial or cooperative nature, that was adopted simultaneously in the Spanish fish packing industry was that in which the fish manufacturers took part as partners in independent tuna fishing companies. Facore itself would have discussed the possibility of becoming a shipowner herself by constructing two purse-seiners by 1974, for which purpose they came to negotiate with the shipyards Hijos de J. Barreras and Marítima de Axpe without the initiative coming to fruition. The other initiative, which would be crowned with success was that of some Basque ship-owners, who faced to the initiative of Facore, which grouped the Vigo canneries, looked for other partners in order to constitute a large fishing company for tropical tuna. They adressed to some Ria de Arousa canneries, grouped in Fripusa[25]. The new company would be constituted under the name of Albacora, S.A. and in it they would

[23] Uriarte (2011)

[24] Fraga (2011)

[25] Fernández González (2011)

enter next to the business group of Ignacio Latxaga, Escurís, Jealsa-Rianxeira, Friscos and other minor processors, all of them located in the Ría de Arousa. Albacora would soon become one of the main tuna shipowners in the world[26].

4.- Growth and internationalization after 1975

In one way or another, by integrating vertically into tuna fishing or by partnering with shipowners, the companies that achieved a secure supply of that raw material grew intensively since the beginning of the 1980s. But, in any case, the central strategy based on the mass production of tropical tuna at prices lower than those of the traditional white tuna was not the only explanation for the success of the Fordist strategies. The success also demanded to expand the markets in which to place the increases in production. And to that end, a strong commitment was needed to popularize tropical tuna in the domestic market and to grow abroad.

For some companies, advertising represented a very important effort. First in press and radio, trying to popularize the new denomination of "atún claro", a name that sought to assimilate the yellowfinn to the traditional and prestigious "bonito" or "albacora". And, from 1979 on television, with a massive campaign of spots in which well-known personalities of theater and television took part. Calvo in 1979 would be the initiator and soon they would follow their way Garavilla (1981), Alfageme (1982) and Rianxeira (1986). One idea of the impact of the first of these campaigns was that the brand awareness of Calvo preserves in the Spanish market went from 20% to 95% in just 20 days[27].

At the beginning of the 1980s, European fish preserves were taxed in the European Economic Community with a tariff of 24%, a figure much higher than that imposed on some competing countries[28]. Thus, although in the decade prior to accession Spanish companies sold some quantities of tuna, mussels and mackerel to Germany, the United Kingdom, France and Italy, the European market was for them a secondary one. The main fish exported was still the sardine, and its main market was the African countries of the Gulf of Guinea beneficiaries of the high oil prices of the second half of the seventies[29]. Libya was also at that time an important market for Spanish preserves. A series of external shocks eliminated most of those exports at the beginning of the 1980s (falling oil prices, debt crisis in African countries, distrust in Spain's own preserve), and it was Spain's accession to the European Union the lifeguard that drove the sector back.

---

[26] Campling

[27] Fraga (2009), p.457

[28] Gómez Navarro (1981)

[29] Carmona (2017)

As the tariff disarmament for fish preserves lasted six years, the accession's market effect would not begin to be noticed until 1993 when it was completed. But in the years of the transitional period there was an important modernizing effect derived from the strong impulse that was experienced by the import of capital goods, whose tariffs had disappeared already in 1986. The companies that were able to invest and to deepen the Fordist strategies, overcoming seasonality, achieving economies of scale and using safe and stable tuna supplies and achieving economies of scale, they consolidated as leaders in the sector. Along with Calvo, Garavilla and Jealsa two other firms, followed the same model after European accession. One of them would be Salica, the result of the merger in 1990 of two companies from Bermeo, Campos and Astorquiza. After a false start that would end with the suspension of payments of Salica in 1993, the ship-owner firm Albacora would take over the majority of the capital by refloating the company. The other one, Frigoríficos del Noroeste (Frinsa), was a refrigeration company established in Ribeira in 1962, dedicated mainly to the freezing and conservation of tropical tuna both whole and in the form of loins, which in 1997 would inaugurate a canned tuna factory, equally specialized..

Since 1993, without tariffs in the European Union for Spanish tuna preserves, strong export growth begins, reinforced also by the significant drop in the change of the peseta that occurred in 1992 and 1993[30]. If In the quinquennium 1980-1984, Spanish exports to the Community had represented 16.50% of the total, in 1999 they represented 85%, and of these 70% were tropical tuna[31]. A large consumer of canned tuna as was Italy bought in the five-year period cited 640 tons per year to Spanish manufacturers; by 1999 I was already buying 25,000. This strong expansion in Italy and France, the main consumer markets for canned tuna within the European Union, was based not only on production advantages and tariffs but also on the distribution strategy followed by the leading companies, which were based on two main elements. On the one hand, the agreements with the large distributors of those countries. On the other, the acquisition of local brands of tradition and prestige that will facilitate their entry. In this sense, Jealsa would acquire in 1991 the French Soluco sur la Mer and in 2000 the Italian Mare Aperto. Calvo bought the Italian Nostromo in 1993. Already in the 21st century leading companies would try to expand markets to emerging countries such as Chile and Brazil where Jealsa took the brand Robinson Crusoe (2003) and Calvo did the same with Gomes da Costa (2004), leading brands in the respective countries[32].

On the supply side, and in order to reduce labor costs in the most labor-intensive tasks of the value chain, some of the leaders would establish, following what had once been done by some of the large North American companies , tuna loin processing plants in low-wage countries close to fishing sites, importing in Spain not the whole round tuna but only the frozen loins. Garavilla established in 1978 its plant in the Ecuadorian town of Manta, which would be followed by Calvo,

30 Aixalá (1999)

31 Carmona (to be published)

32 Carmona (2011)

which did it in 1981 in Guanta (Venezuela) and later it would be replaced by another one in El Salvador in 2004, the same year in which Sálica was established in Manta[33].

At the beginning of the 21st century the two companies that had vertically integrated towards tuna fishing, Calvo and Garavilla shared leadership in the sector with a third, Jealsa-Rianxeira, that had combined partial integration as a partner of Albacora with the subsequent acquisition of own vessels. None of them had been in 1967 among the top 5 in the sector, and two not even among the twenty. What did they had made in common that explained his brilliant rise? First, that the three had unequivocally bet on tropical tuna as the center of their activity and that they had been able to guarantee a stable supply of that product. Second, they had made the necessary investments to gain scale. Third, they had been able, each in their own way, to make themselves known through impressive advertising campaigns and at the same time to clearly opt for a distribution strategy. More oriented towards the private label in the case of Jealsa and more oriented towards their own brands in the other two cases. With this background, they were able to increase their market shares in the expansive domestic market of the second half of the eighties and to use the 1993 Single Market tariff disarment to grow in the European market.

In any case, next to these three companies that adopted a fordist model and to Frinsa and Sálica, that followed them during the 1990s, there were other patterns of relative success in the industry. Two fundamentally. The first was that of some of the companies that in the seventies and eighties, without neglecting tropical tuna, looked for their flag in other products such as albacore tuna, anchovy or mackerel and managed to maintain well positioned brands. The second, that of the companies that managed to build a name in certain niche markets, especially in the delicatessen sector. In any case, most of the companies that existed at the end of the Autarchy had been disappearing from the sixties on and the Spanish fish canning industry is today a very concentrated one, so that the first five firms currently represent 70% of the industry's turnover.

Bibliography

Anfaco-Cecopesca (2015), O sector conserveiro de peixes e mariscos de Galicia. Evolución do seu impacto socioeconómico, internacionalización e innovación, Anfaco-Cecopesca

Bonanno, A. & Constance, D. (1996), Caught in the net: The Global Tuna Industry, Environmentalism and the State. University Press of Kansas, Kansas

Campling, Liam (2012), The Tuna “Commodity Frontier”: Business Strategies and Environment in the Industrial Tuna Fisheries of the Western Indial Ocean”, Journal of Agrarian Change,

Carmona , X. (1985), "La formaciòn de la industria conservera gallega", Papeles de Economìa Española, serie Economìa de las Comunidades Autònomas, nº3. Galicia

[33] Carmona (2011)

Carmona, X. (1995), Recursos, organización y tecnología en el desarrollo de la industria española de conservas de pescado, 1900-1936, en Nadal, J. y Catalán, J. eds., La cara oculta de la industrialización española, Alianza Editorial, Madrid

Carmona, X. et al. (2011), Las familias de la conserva, Anfaco-Cecopesca/Deputación de Pontevedra

Díaz de la Paz, A. (1992), Aproximación a la industria de la conserva de atún en el primer tercio del siglo XX, V Congreso Asociación de Historia Económica

Díaz de la Paz, A. (2012), Extracción de túnidos y competitividad en la industria derivada. El caso de las pesquerías canarias, 1950-1975, Anuario de Estudios Atlánticos, nº58, pág. 487-514

Dubois, Xavier, (2005), La revolution sardinière. Pêcheurs et conserveurs en Bretagne Sud au XIXe siècle, Rennes, Presses Universitaires de Rennes.

Doulman, David J., ed. (1987), The Development of the Tuna Industry in the Pacific Islands Region: An Analysis of Options. Honolulu: Pacific Islands Development Program, East-West Center

Escudero Domínguez, L. J. (2007): Acciughe salate alla vera carne: Historia de los salazoneros italianos en Cantabria, Santander, Universidad de Cantabria.

Escudero Domínguez, L.J. (2000), La industria transformadora de la pesca. Implantación, desarrollo y afianzamiento del sector en el País Vasco: 1841-1905, Itsas Memoria. Revista de Estudios Marítimos del País Vasco, nº3

Escudero Domínguez, L.J. (2007b), “Conservas, semiconservas y salazones de pescado en el Cantábrico. Análisis y situación del sector en los últimos años (1993-2004)”, Zainak, 29, 171-196

Fernández González, A. (2005): De la roca a la cuerda. 60 años de industria mejillonera en Galicia (1946-2005), VIII Congreso de la Asociación Española de Historia Económica, Santiago. [http://www.usc.es/estaticos/congresos/histec05/b6_fer- nandez.pdf]

Ferrarios Lázaro, J. M. (2013), Campañas de Dakar. Las campañas de pesca de túnidos a caña realizadas por la flota de Bermeo en aguas de Africa Occidental (1956-1965), Bermeo, AZTI-Tecnalia

Garavilla Legarra, J. (1984), La industria de conservas de pescado en España, en Crédito Social Pesquero, V Semana de Estudios Pesqueros, Madrid, pp. 27-35

Hamilton, A. et al. (2011), Market and Industry Dynamics in the Global Tuna Supply Chain, Pacific Islands Forum Fisheries Agency

Herrick, S. (1983), A review of the tropical tuna fishery of the Atlantic Ocean, 1975-1980, Col.Vol.Sci.Pap. ICCAT, 18 (1): 50-71

López Losa, E. (1997), “Escabeche, salazón y conserva. Una primera aproximación a la transformación del pescado en el País Vasco (1795-1975), en Las conservas de pescado en el País Vasco. Industria y Patrimonio, San Sebastián

López Losa, E. (2000), La pesca en el País Vasco. Una visión a largo plazo (siglos XIX y XX), Itsas Memoria. Revista de Estudios Marítimos del País Vasco, nº3, pp. 239-276

MARIE D’AVIGNEU, A. (1958), L’industrie des conserves de poisson en France metropolitaine, Rennes

Ocampo Suárez-Valdés, J. (2006), Pesca y conservas de pescado en la economía marítima de Gijón, Puerto de Gijón. Pesca y Conserva, Autoridad Portuaria de Gijón, Gijón

Ocampo Suárez-Valdés, J. (1999), Las conservas de pescado en Asturias, 1750-1930, , Pesca e Historia. Xuntanza Internacional de história económica e social do sector pesqueiro, Santiago,

Ríos Jiménez, S. (1999): La industria conservera de Ayamonte: desde sus orígenes hasta la Segunda República, en Parejo, A. y Sánchez Picón, A. (eds.), Economía andaluza e historia industrial, estudios en homenaje a Jordi Nadal , Málaga

Ríos Jiménez, S. (2002), La industrialización de la pesca en la provincia de Huelva (1800-1930), Historia Agraria: Revista de agricultura e historia rural, nº 28

Ríos Jiménez, S. (2005), Origen y desarrollo de la industria de conservas de pescado en Andalucía (1879-1936), Revista de Historia Industrial, nº 29

Ríos Jiménez, S. (2007), La gran empresa almadrabero-conservera andaluza entre 1919 y 1936: el nacimiento del Consorcio Nacional Almdrabero, Historia Agraria: Revista de agricultura e historia rural, nº41

Smith, A. F. (2012), American Tuna. The Rise and Fall of an improbable food, University of California Press, Berkeley, Los Angeles and London.

Ugalde Zabala R. (2015), Atuneros congeladores vascos. Un sector de relevancia económica mundial, Ediciones Beta III Milenio, S.L., Bilbao

Vence, X. (1989), Potencial innovador e cambio tecnolóxico na industria. Estudio da área sur da provincia de A Coruña, Santiago,

Wolff, Thomas (1980), In Pursuit of Tuna: The expansion of a fishing industry and its international ramifications- The End of an Era, Arizona State University, Tempe