(Re)designing a tradicional product

design strategies for the development of yellow codfish products and its positioning in gourmet markets

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ABSTRACT

This study is aimed to establish knowledge about the relationship of the strategic issues of design, focusing on the value of the product as a market strategy and the importance given by a national industry with wide experience in cod fishing in the area of Aveiro.

We tried to study and analyze the codfish industry to use a new marketing strategy based on recovery of yellow codfish - distinct product and with portuguese origin, undervalued and deserving outstanding in internationalization.

This work was done under a survey of theoretical studies that gave us the historical background since the artesanal fishing until the industry of codfish; we identified a small company in Gafanha da Nazarét, Aveiro (central sector), the Silvercod, who tried to develop a strategy to recovery yellow codfish already marketed by this company but little explored and published, trying to place it in a new market through a strategy of communication and encouraging new forms of consumption. This strategy demand to spread awareness of the consumer and for the tasting of this product, we can consider *gourmet*, unique and great tradition in Portugal.

The result of this research can not yet be measured and in the moment, the project is still under development and testing. Because of this, and also due to the product not yet being marketed, it is difficult to present results and conclusions, particularly with regard to sales and the impact of this intervention through design.

Categories and Subject Descriptors

5. Organizing design in industry (on design management and processes)

General Terms

design, food, strategic design

Keywords

Design, codfish, aurum, communication, product, gourmet, yellow codfish.

1. INTRODUCTION

"We must recognize that the Portuguese were the first to introduce in our eating habits, this precious fish, universally known and appreciated."

Auguste Escoffier, french chef, 1903 [6]

The codfish in Portugal is mostly traded and consumed salted dry [18], tracing the transformation process for consumption to the fifteenth century, the time of discovery and exploitation of fishery

in the waters of "Terra Nova". By salting and drying fish, fishermen could preserve it until they reach their destination, to later continue the dry salt cure performed in Portuguese territory.

"...Gaspar Corte Real is the captain of an expedition which went for the first time to those lands, between May and October 1501" [8].

The long historical relationship with Portugal's fishing and consumption of codfish, assumes a dimension of economic and cultural impact. Inserted in the national fishing industry, the relevance of this activity is reflected in the national and regional economic scale. However, the sentimental relationship with national and gastronomic this product also traced back to the political strategies and religious habits[8] states that "early and dry salt codfish became a staple food in Portugal." From then until the present day, the habit of consumption of codfish remains rooted in the Portuguese culinary tradition. Here, we should also mention the strong campaigns of the cod fishery that the Estado Novo of Salazar and corporate governance implemented in the country between 1934-67, in order to make this measure as part acquired - as part of the Portuguese identity[4]. The Catholic Church also contributed to encouraging the consumption of fish, when it imposed the days when it was forbidden to eat meat and that nearly half of the year[7]. The codfish became thus able to affirm a religious symbol, a cross for Christianity. As Portugal is also a historically Catholic country that has been perhaps one of the reasons that help explain why the species became so connected, culturally, to the Portuguese people.

The area of Aveiro / Ílhavo has long traditions of capturing, processing and drying of fish, it currently has about 22 companies, owning and drying, they practice this activity. This is a tradition deeply ingrained in the collective memory of these people and this is mainly because of a large population groups in the region working in fisheries and droughts, a key component of diet of those people until the middle of 80's [3].

Silvercod is a company of importing, drying and commerce of dried codfish, founded on October 1, 1990, based in Gafanha da Nazaré in the district of Aveiro. It started its business with the name Benisal and in 2007 had created the brand Silvercod, adopting later this name as the name of the company. Since its inception it's composed of five employees. In 2009 were bought by Globopeixe group wich decided to keep the brand name.



1: The Silvercod logo

Commercializes dried salt codfish, yellow codfish, shredded codfish, tongues, faces and "samos" from Iceland, Norway, Portugal, Denmark, North Atlantic, Pacific and Canada.

Silvercod has been investing in the recovery of traditionally and old method of treatment of codfish, particularly in the called codfish's Yellow Cure. This is a codfish treatment that's characterized by being much more consuming and demanding in monitoring the maturation of the product.



2: Yellow codfish

Uniquely prepared from the species Gadus morhua, the codfish is caught between December and June, months when occurs the codfish spawning and where, consequently, they are fatter.

This product goes through a first salting, which lasts about six months, which is followed by cleaning the fish, where the viscera are removed and small impurities. This initial treatment is followed by first soaking in water, from six to eight hours, and then drying in the sun to reach the half cure. This process of soaking and drying will be repeated until the fish get's a uniform color and hence its point of maturity. The soaking operation can range from thirty to thirty-two hours.

The yellow codfish becomes a product with its own characteristics and distinct from other cures used in the majority of dried salt codfish on the market today. It is a product that holds less salt, requires less time of soaking before cooking, their consistency is harder because it is drier, allowing, in our opinion, a greater diversity of types of cutting. It differs from normal cure, mainly because it assumes a dark yellowish color, the result of a slower drying, and a much more intense smell and flavor.

Terra Nova (Newfoundland): Island in Canada. It was discovered in the fifteenth century by Portuguese sailors Gaspar and Miguel Corte Real. With permission of the King Manuel I, Gaspar Corte Real made two trips to Newfoundland. His brother Miguel went after him for not having returned, who is also thought of disappearing on an expedition to Newfoundland, leaving stone inscriptions on the call of Dighton. The island is part of the homonymous province, covers an area of 112,390 km2 and has 512,930 inhabitants (2001). It has numerous lakes of glacial origin and the coast presents a very rugged and the weather is cold and wet. The population's main activities are fishing and mining.

However, this is a product that requires more qualified labor, and which ultimately has a greater drop while drying, because the successive soaking and relaxing in the sun constantly cut him more salt, and therefore the weight of raw material. All of this operation of processing fish turns out to have an impact on the final product price, making it the more expensive than the rest codfish available in the market.

The uniqueness of yellow codfish, is due to the cure process itself, as well as the methods adopted by national campaigns (immediately after harvesting). The difference between this method, different from other nationalities involved in cod fishing in Terra Nova (Newfoundland), is reflected not only in the quality of the product but also in the rituals of the Portuguese gastronomy.

Through this study, of the situation of national cod fishing industry, the Silvercod and the yellow codfish, sought to contribute to its expansion into new markets in order to create more economic value to the company and the cultural and gastronomic heritage of the region of Aveiro and consequently, of Portugal.

2. METHODS

"In Anglo-Saxon world it's Codfish, in Norway it's Stockfish, in Italian is Baccalà, Spain likes Bacalao. The presence of "our" Codfish in the use of many languages, represents a globalization that is not indifferent to an epic Capture in the cold waters of Newfoundland, taken by the Portuguese since the fifteenth century. Since then, the codfishers embarked on the conquer of the so-called 'gold' of the seas."[2]

Each Portuguese consumes approximately 60 kg of fish per year, from where 40% refers to the consumption of cod. Our country, at the global scale, is the 4 th consumer of fish and the number one consumer of cod. This makes us clearly stand out in the trade of this fish. Concerning to the frozen codfish we occupy the N° 2 on importation (while in Norway N° 1) and 3rd place in exporting (while also Norway is N° 1). Regarding salted codfish, Portugal is the largest importer and Norway's largest exporter. Portugal occupies the 2nd place in the import (while Brazil N° 1) and Norway's biggest exporter, with more than 50% of the World wide exported Cod.

In October 2001, at the International Colloquium in History of Cod Fishing in Ílhavo (Portugal), were presented the results of the query SALMAR (2000) in which was concluded, given the responses of thirty-nine of the major national codfish fishing industries, that would be urgent to increase national capture of codfish. This is due to several factors including the scarcity of resources, the extension of maritime jurisdiction of coastal states (such as import almost exclusive source of supply and stability in the national consumption of codfish), the fear of the consequences of accelerated growth in price and the fear of weak regulation and oversight of the product. In this meeting were mentioned some vulnerability factors of manufacturing industries such as the fact that the raw material represents more than 80% of production costs, the increasing integration of fish markets, the weak bargaining power in purchasing raw materials, asymmetric information on the relationship between Portugal and Norway (with few studies and monitoring, in Portugal, of what is

happening in Norway), the presence of foreign integrated companies in Portugal and the increasing importance of central purchasing of "hypermarkets".

Finally, with regard to the international market, the study referees the existence of some occasional exportation, usually done by intermediaries

In 2009 and previous years, "Division 10" (Food Industries) had recorded the largest sales value of produced goods and services. It reached a value of 8267 million euros, that represented approximately 14.7% of total manufacturing industries. However, with regard to the groups that contributed the most to the reduction of product sales between 2008 and 2009, the National Institute of Statistics states that, among other, the group 102 (Processing and preserving of fish, crustaceans and molluscs) presents a decrease of 118 million euros and in which it highlights the negative evolution of dried or salted fish (dried salt codfish).

According to the Ministry of Agriculture, in the second semester of 2010, Portugal is authorized to fish more 875 tons of codfish per year, an increase of more than eighty per cent compared with previously established by NAFO quota. This increase in shares for cod fishing, representing a significant impact on increasing the national food production, foresees a growth in terms of exports (Brazil, France, Italy and Angola) in the codfish industry in 2010, and this business segment represents a volume exceeding 50 million per year.

Particularly in the area of Aveiro, region over which our project focuses, and where lies the cluster of processing, import and production of codfish, were identified twenty stokers and fish dry companies, being Silvercod the only company that practices the process of yellow cure, respecting cure times, both in the soaking and salting. This is thanks to the experience accumulated for over 40 years, by an employee of the company (Joaquim Reis), in the treatment of codfish in this kind of method.

Concerning distribution, we can find across the country this product fairly represented in traditional commerce, delicatessens, codfish specializing stores and in gournet shops. In supermarkets and hypermarkets predominates mainly low codfish category.

Based on the research and focused in national scene concerning to the yellow codfish, characterized as a high quality product and a strong national tradition, we considered the possibility of working it in the form of new products and the position in new markets with *gourmet*² propensity.

On the other hand, the high production costs and the final product price, the unfamiliarity of the public and the weak relation with it, and adding to that a lack of variation and cost of quality raw material and traditional production method, are assumptions which oblige the considered intervention. In this way, we defined strategic objectives that would enable the maximum advantage of the product, developing a brand oriented to penetrate new gourmet markets as well as developing proposals for new forms of consumption.

² *Gourmet*: (French word for "wine taster")

^{1.} Person, usually educated in wines and gastronomy, which values the quality and culinary refinement.

^{2.} It is said of high-quality product for cooking. Plural: gourmets. in http://www.priberam.pt/

Through the analysis on the supply of processed products, that resulted in new modes of consumption, were studied proposals based on cheese, salmon, ham and foie gras. These products have in common that they are available in smaller quantities than usual and developed for use in hors d'ouevres or for consumption in a smaller scale. Through these products we were able to identify several proposals for fusion cuisine. National products are sometimes processed or presented with new forms and new ingredients, blending characteristics of the gastronomic heritage of other countries. These facts are presented in line with market needs, family structures and allows for smaller purchase quantities best suited to the needs and consumer trends. This way, is explored the value of the product through the act and tasting experience, with new combinations of ingredients, modes of consumption and value for money.

Based on Stacy Wood (visiting associate professor at Duke University: The Fuqua School of Business) study, eating out of your confort zone, which is an increasing pattern and enhanced by globalization and cultural dissemination, which predisposes the consumer to explore and test mixtures of ingredients or flavors unlikely.

In the developed research in collaboration with Silvercod, we were able to ascertain some difficulties in the presence of product in some markets. This is mainly due to the ignorance and misinformation about this product, which is characterized by an awful smell and it's dark yellow colour, key characteristics in the selection the product by fans, but that makes little acceptance in domestic and foreign markets, and is even rare in countries such as Italy, where most white codfish is considered a superior product.

Through active research methods along with the company we were able to access the cultural heritage and gastronomic habits developed by the employees themselves. This proposal was strengthened by reports of workers's old habits, that sometimes (during the workday) ate small flakes of codfish with biscuits (bolacha maria). Habit that along with the company was considered as a starting point for product development. The historical research has allowed us to investigate specific approaches to working-class recipes, only present in the manufacturing universe and packaging techniques of codfish that were lost or that are in use at traditional shops.

Based on information originally collected along with SilverCod, and since that this exercise was being developed within the Design PhD program at the University of Aveiro, tests have been developed together with the students. In this exercise, after the presentation of the product, its features and history, we offered thin slices of cured yellow codfish with biscuit (bolacha maria) as a start point for a discussion. Consisting mainly by Portuguese students (20 Portuguese and two Brazilian), there was a familiarity with the product, however this was a strange and new presentation of codfish. In this experiment we were able to observe that the intense odor of codfish (considered by experts one of the most important feature) is the most difficult barrier to overcome and two participants could not even taste it. The remaining majority, even though some had confessed to not being fond of codfish, were amazed by the combination, identifying it as a pleasant surprise in terms of flavor and contrast. After passing the barrier of strangeness of the proposal, they start to give suggestions of ingredients combinations, references relating to memories of past experiences in markets, traditional shops or even in homemade cooked meals. Based on the issue of cultural heritage and gastronomic richness of the country, and its unique products of high quality, can be concluded that there was an agreement to explore combinations that not only had the codfish as the only Portuguese product but that he should be accompanied with other Portuguese unique products.

In terms of product presentation was appointed the need to eliminate or reduce the intensity of the smell through the package, though the features or references to the traditional trade were considered a distinguishing element of a range of gourmet that is often based on stereotypes and absence of origin references.

Summarizing, and using a SWOT analysis, we conclude that regarding to **Strengths**, we are in the presence of a high quality product with a strong craft tradition, hostage of a know-how each time more scarce whose company retains as one of its major gains unexploited.

However, on the side of **Weaknesses**, we observe that its production has high costs, which will necessarily reflect in the final price, and that there's generally a lack of information about this particular product, thus making it unattractive to the consumer in general. There is also a problem in the fact that yellow codfish is, culturally, a seasonal product, and its sales peak are in the two months prior to Christmas and drop to a low level in the rest of the year. Finally, there is still the fact that the brand Silvercod is very little associated with this particular product and therefore not valued as an asset separate from the company's product portfolio.

Regarding to **Opportunities** arouse to us as major factors the emergence of new markets, with a natural propensity for gourmet products, and the possibility of developing sub-products which allow a higher valuation and profitability of raw materials.

Finally, examining the **Threats**, it was verified that there's a possibility of, in the medium to long term, finding ourselves with a scarcity of high quality raw material, which by itself will lead to uncertainty of the final product price. In this area, we must also consider the danger, in public in general, of the strong tradition of craftsmanship be understood as pejorative. In other words, as a product that is the result of a manufactured process outdated and poorly controlled.

3. DEVELOPMENT

3.1 Strategy for (re)positioning the product

Exclusively oriented to the requalification of dried salted yellow codfish - unique product, superior quality and with big difficulty in profitability - the developed strategy took into consideration the business structure and its investment capacity, being defined in four stages of intervention and overall implementation: production structure, corporate image, developing new products and seeking partnerships.

Thus, considering the intervention in the production structure, it was found that taking advantage of the natural product, that given the specificity cure becomes more compact, it would be possible to consider new approaches to their processing, including being cut into thin slices and cubes, which at the same time, allows the optimization of the entire raw material. So, the extension of the weighing and cutting section through the acquisition of a cutting machine for slicing and dicing, allows us to partially reduce the costs of this product and gives the consumers the opportunity to be able to get the yellow codfish without having to buy in large quantities.

On the other hand, as to the institutional image, the creation of a sub-brand of Silvercod, to explore a nonexistent market segment - gourmet food products that explore new ways of tasting yellow codfish - allow us to achieve the goal of creating a new product category[12].





3: Aurum logotype - sub-brand of Silvercod

To this end, we resorted the designation of Aurum, which means golden in Latin, as the chosen name for their representation. The origin of the word is a metaphor for the origins of yellow cure, since that Aurum assumes a parallel with cultural references associated with the value that we all know that gold has, which reflects the importance given to this product, considered by many as the "gold of the seas" [2]. On the other hand, being Latin the basis of many other languages, this name can also mean a return to origins, to the beginning, a metaphor that also refers to the recovery of the process yellow cure.

Its chemical symbol Au, used as a name brand as well as the use of the square, led us not only to the periodic table of elements but also to a world of alchemy, like the production process of yellow cure codfish. It should be noted that, although the fact that it derives from Latin, this name is easy to pronounce in several languages, and this is a great asset in the future process of internationalization of the brand.

In line with the proposals for new products, packages have also been developed that aim to explore new markets (slices, cubes and sliced in vacuum packs), to increase its presence in the traditional shops and invest in product versatility, through the tasting kits. These packages explore traditional materials and references to packaging methods used in traditional codfish stores. Like the traditional packaging made by retailers, was used "merceeiro" paper as the main element to "wrap" the fish, where it has been printed the logo symbol.



4: Vacuum packing (mockup)

On the other hand, we used the process of packing in vacuum, which is a technology that allows to dissipate the intense odor of the yellow codfish and makes the product pleasantly visible and it's a economically viable solutions as the defined goals.

Finally, we created a package, to be used in the tasting kits, which presents a particular geometry, volumetrically similar to the "A" of the logo, having inside the codfish (in spread, sliced or diced) with the condiments presented in test tubes, which reinforce the concept of alchemy defined in this brand.

In summary, the main goal is to, in parallel with the other elements of the brand, establish a series of references that allow a clear identification of the product with a specialized audience, which recognizes quality as an asset. It is intended that Aurum will be labeled as a brand with "great significance to people who share the same ideas, wherever they live" [13].

In the context of the intervention proposed, the profitability of raw material assume a central importance in the management of the firm (variable in terms of quantity and price) as well as the optimization of time and manpower involved. The development of new products is closely related to the maximum advantage of codfish as a whole, subdividing it into parts for steaks, sliced and diced. Moreover, the innovation regarding to the existing market supply (limited to pieces, *samos*, codfish tongues and faces), the cubes and slices allow further exploration in new dishes.

According to Duarte[3] "is the widespread use of the dry product in its various forms (whole, slices, shredded) or in sub-products regarded as specialties (faces, tongues, *samos*, etc..), which also guarantees the codfish a prominent place in the preferences of the Portuguese, whether of a gastronomic, cultural or economic kind." This writer also believes that new ways of marketing this product, in renewed distribution channels, is the way of reorganizing the industry and responding to external threats and strong competitiveness of other food industry.

3.2 Strategy of implementation and dissemination of the brand

For the strategy of implementation and dissemination of the brand we sought, initially, to create conditions to encourage other forms of tasting this popular product. Tasting kits were developed as an initial proposal, aimed at professional cooking chefs of recognized merit, so that they can explore this offer and, in return, surprise the public with the results.



5: "chef kits" (mockup)

In this proposal, the chefs are invited to develop new combinations, starting from the "postas" (slices), "fatiados" (sliced) or "cubos" (diced), and suggesting the most diverse ingredients, creating taste experiences, which encourage new forms of tasting the yellow codfish and present the product to the general public in innovative ways. After the stabilization of the proposals on their part, the results of experiments will be available at gournet market in autonomous kits, composed by the codfish and the other elements necessary for the recipe. This relationship, resorting to opinion makers, aims to increase the visibility of the product and to ensure credibility to a public less knowledgeable of the yellow codfish.

"When working with food, naturally you work with the senses. But more important is the story behind it, the story that I want to tell. Sometimes it's about where the food comes from or what it does to your body or how food makes you communicate and share with your fellow table guests.³"

As it is mentioned by Marije Vogelzang, which presents itself as an eating designer, the narrative process inherent in the tasting experience, whether given through the proper combination of flavors, either through their relationship with the product's origin, is an element instrumental in complete fulfillment the act of eating. Thus,

we believe it is preponderant the establishment of partnerships with another originally Portuguese products, of recognized quality, in order to increase the references to Portugal's experience.

In this particular case, in the materialization of the proposals in "chef kits", the product is presented together with three or four selected ingredients, assuming them as a basis of a "controlled experimentation" by the consumer, involving them in the creative process of their own experience.



6: "Controlled experimentation" kit (mockup)

Finally the participation in culinary events, such as the cod festival, which takes place in Gafanha da Nazaré, the company's original region on which this project addresses, enables, initially, to approach the product to local publics. Where will be the first presentation/tasting experience of the products and we assume this event as a laboratory for study and analysis of acceptance of proposals, to be screened or made a pitch for the project. The public contact and feedback will be important way for strengthening the implementation in the national market and, at the same time serve as test for the participation in other larger events.

4. CONCLUSION

"This century will certainly be known by the century of water, leaving behind the essential importance of oil as a last resort, so the management of water and the marine environment is presented as the common good to protect for future generations. It is in this sense that the fish, cod, is defined as a strategic resource. Similarly, it is necessary humility, intelligence and open mind to be able to sustain its economic exploitation, balancing innovation with tradition, after all, factors common to all sectors of Portuguese food. The way forward is through a proper development strategy, where Portuguese salt cod, with the quality that we recognize, can only be promoted, publicized, praised and consumed. Seems that, despite all odds, will have a good future ahead."[3]

³ *in* http://www.michigandaily.com/content/marije-vogelzang-penny-stamps-lecture (19/01/2011).

In this study, we examined the changes in the industries of fishing and processing cod and we develop a strategy of product innovation through design as a vehicle for implementing the yellow codfish in new markets, and eventually conquer international markets. Still in project research phase, we sought to intervene in Silvercod's company to demonstrate the importance of valuing the yellow codfish product. Being that this strategy is still in the phase of practical implementation, we can only, for now, register the highest expectations regarding the future results and, as soon as possible, collect the quantitative and qualitative data that will tell us the concrete results of the research conducted on investment.

Through some recent EU studies we can conclude that the institutional changes related to Portugal's permitted fishing limits, although had driven into collapse a significant number of cod industries, made the survivors, who were more receptive to new marketing strategies, find alternatives for success. We recognize that design contributed to the improvement of products associated with cod and that, for example, in our case, may also become the ideal partner to reverse the state of marginalization in that the yellow codfish has been put.

Silvercod's specific case, brings together a number of unique and under-exploited characteristics, such as the accumulated knowhow on the production of this excellent product, that becomes a clear gain in competitive when considering the rest of the Portuguese cod transformers industry.

Our aim was to bring to this reality the contribution of design as a strategic tool, able to leverage these strengths and, simultaneously, provide new solutions in markets where the company could invest.

We quickly found that in terms of investment, the effort could not be substantial, and that in terms of corporate structure would be few the possible changes. Thus, by proposing a set of solutions as: a small investment in machinery for cutting and vacuum; versatile and multi-functional types of packaging; partnerships with other producers of natural products of recognized quality, we ensure that this investment is undertaken in a sustained way and that the economic risk for to the company is relatively low.

Likewise, we are making it possible to recover the tradition of consumption of this single product, typical and of renowned quality of Portuguese gastronomy such as the yellow codfish, and that, as we could ascertain, is still largely unexplored by the competition, being that we are simultaneously enhancing its solidification at the national level and even his, and the company's, possible internationalization.

Given the foregoing, we can also conclude that the study now presented argues that the strategy developed is the result of a close cooperation with Silvercod and this cluster of the Aveiro region. It's also based on the belief that design brings answers to this matters that can help make this product a benchmark for recognized quality, as has been only for a small minority, but now to a wider audience and geographically dispersed.

Confident that the quality of the product itself is its biggest asset, we have now to wait and see if the present strategy will do justice to him and contribute to its leadership in the global marketplace in which we find ourselves today.

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