

COMPETITIVENESS OF FISHERY EXPORT SMES IN ENSENADA MEXICO, FROM THE SUSTAINABILITY PARADIGM

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ABSTRACT

This study presents a link between the competitiveness of Small and Medium Enterprises (SMEs) from the fisheries export sector in Ensenada, Baja California, and the sustainability paradigm. This research intends to assess the competitiveness of fisheries by analyzing the practice and procedures used in terms of sustainability, determining whether the structure they have is suitable or not, identifying their strengths, weaknesses, opportunities and threats as well as the critical factors of success of those enterprises with a foray into international markets. The degree of competitiveness in the international market, as well as the sustainable use of the regional resources, are assessed. Exercising fishery under a sustainable approach would ensure the species ability to reproduce by keeping healthy populations while avoiding a negative impact on the marine environment. Results show that SMEs are competitive internationally due to the effort of productive chains gained by the involvement of the public and private sectors. Conversely, this sector requires specialization and a greater diversification that allows producers to integrate acceptable and sustainable management of the resources in the medium and long term.

KEYWORDS: Competitiveness; fishery export; illegal fishing & Sustainable fishing

INTRODUCTION

While illegal fishing and related activities proliferate, overexploitation of species populations grows worldwide.

Population will need an additional supply of aquatic food, 23 million tons are required to sustain the present per capita consumption level, commercialization faces difficulties due to infrastructure and limited and congested market facilities, many obstacles prevent the transition to lower impact and fuel consumption fishing arts and practices from happening. (Secretary of Agriculture, Livestock, Rural Development, Fishery and Nutrition SAGARPA, 2013, p.15)

In 2007, The General Law of Sustainable Fishing and Aquaculture was published (effective to date with reforms in 2012 and 2015) establishing the development scheme of the fishing sector from a sustainable context, focused on social, economic, and environmental goals in order to reach the desired development.

National fishing offer is integrated by three major groups: fresh products, canned, and flour and traditional species for export. Fresh products are destined to the national market and their distributions depend on a network of intermediaries. The canned industry is primarily made from tuna fish, while sardine and anchovy are mainly used for flour production; in both activities, production and commercialization are part of the processing plants.

In 2012, 65.4% of Mexico's total fishing production, was assigned to direct human consumption and 34.2% to

indirect human consumption, being processing plants responsible for transforming sardines in flour and oil fish; on the other hand, 0.4% was destined to industrial use, with algae, sargassum and shells as the main source.

To Mexico, the U.S. represents a natural market that receives 88% of total exports. Other regions such as Europe and Asia have an intermittent level of imports which varies according to the growth or reduction of the national fishing production. Fish flour is mostly exported to China, the United States, Taiwan, Japan, and Chile; and tuna is sent to Spain, the United States, Japan, Guatemala, and the Netherlands.

In this sense, Baja California is positioned as a major exporter nationwide; its natural conditions allow it to dispose of 1,555 kilometers of coast (880 kilometers on the coast of the Pacific Ocean and 675 kilometers on the coast of the Gulf of California), representing 13.4% of the total coastline of the country, a continental platform of 33,239 km², and 748 km² of coastal lagoons, estuaries, and bays.

Baja California, in particular, exports its products to Thailand, Japan, Malaysia, France, Peru, the United States, China, Taiwan, Costa Rica, and South Korea.

The fishing sector in Baja California is affected by several challenges of different nature, as follows:

- There is an excessive centralization of fisheries and aquaculture management, as well as uncertainty and bureaucracy in assigning access rights such as permits and grants. The procedures for issuing permits are not resolved locally, which results in losses in time and resources.
- Furthermore, the uncertainty in assigning access rights negatively affects the efficiency and economic profitability of the activity. Moreover, the existence of overlaps in the authorized fishing areas complicates the operation and causes conflicts.
- Illegal fishing has a high incidence due to the absence of the application and implementation of effective inspection and surveillance schemes. Additionally, an acceptable legal framework to fight and punish poaching severely is lacking.
- The pollution of coastal areas in the state represents risks that must be assessed in order to put forward contingency and mitigation plans for the impact on fishing and aquaculture.
- The existence of protected natural areas on the Pacific coast as well as on the Gulf of California - designated as a priority for their conservation value- are imposing a new dynamic for fishing activities and aquaculture.
- In addition, fisheries and aquaculture are vulnerable to natural hazards such as red tides, hurricanes, and climate change.

METHODS

The indicators used were implemented according to their ability to describe or measure the competitiveness values in the sustainability paradigm while associated with fisheries in social, economic, and environmental considerations.

97 SMEs were registered in Ensenada County; 45 were randomly selected. Surveys were mainly answered by the management staff of the SMEs selected.

Three great variables and eleven indicators were grouped as observed in table 1.

Table 1: Indicators

Variable	Indicator
Sustainable fisheries	Fishery Arts Catch Volume Fishing Permits Management and Conservation of the Species
Export	International Standards Rates and Duties International Prices Demand
Competitiveness	Operational Structure Financing Costs

Source: *Own elaboration*

This survey intends to gather data regarding the prevailing and present state of fisheries in Ensenada. All of this is possible by including sustainability indicators in the survey which was divided into four sections: sustainability, export, competitiveness and structure-logistics of the SMEs.

In order to select the most effective indicators, a focus group discussion was held with ten experts participating in it -three in environmental matters, two in social community issues in fisheries, and one in institutional policies-. By brainstorming and sharing, the experts fruitfully contributed with an overall perspective that helped determine the present state of the fishery SMEs in the county.

The data gathered was analyzed with *descriptive statistics* for all four aspects as a means to quantify the information provided “freely” in some questions. The *Likert Scale* was used for the sustainability and export aspects. This data was thoroughly analyzed, interpreted, and summarized by subject matter experts.

RESULTS AND DISCUSSIONS

45 randomly selected fishery SMEs completed the survey in Ensenada, Baja California. The population surveyed were the owners and managers of such SMEs, which have been operating for 24 years on average.

It was found that the main competitive factors in the market have been:

- Geographic market area
- Production costs
- Integration of the value chains
- Modern ship
- Market analysis
- Price
- Quality and logistics

The focus group discussion provided the strategic diagnostic as follows:

Table 2: SWOT Matrix

Strengths	Opportunities
Easier access to international markets while complying with the necessary requirements, as well as the presence and quality-price recognition of its products. High costs and poor support. Traceability and conservation of species in danger of being overexploited. Increased income due to productive diversification. Continued presence in the market and access to niches. An improvement in fishing techniques.	A growth in consumption of sustainable fishing products. Access to technologies that are friendly to the marine sector and more efficient marketing practices. The State commitment to support and regulate SMEs. Learning and specialization to reach a virtuous productive chain. A source of employment in the county.
Weaknesses	Threats
Limited economic support and incentives provided by the State upon the sustainable needs required by the destination markets. Need for advisers to improve the implementation of practices and protocols that continue to ensure the preservation of fisheries. Limited research on fisheries and their impact on the ecosystem, Poor development for third party certifications A need for market diversification for international export.	Strong pressure by the private sector and non-governmental organizations towards the extraction of the resources exploited by fisheries. Limited collaboration of the private sector in fighting illegal, undocumented, and unregulated fishery. Sector's critical situation due to overexploitation of species. Allocation of investment capital towards products and markets with higher sophistication levels upon the lack of availability to capture which tends to replace volume with price.

Source: *Own elaboration from the focus group discussions with SMEs producers in Ensenada B, C.*

CONCLUSIONS

Fishery export with a sustainability perspective demands strict compliance with the international standards for sustainable export which impacts the production and supply chain.

There are currently 97 fisheries SMEs operating in Ensenada. In this county, the species that provide a high commercial value are: abalone, (*halioti* ssp.), bluefin tuna (*thunnus thynnus*), shrimp (*Penaeu* ssp), Pacific geoduck (*panopea generosa* and *panopea globosa*), sea urchin (*strongylocentrotus*), lobster (*panulirus interruptus*), and sea cucumber (*isostichopus fuscus*). Production value represents 39.8% of the total, however, fisheries has an important stake in the total value with 29.8%.

The species that are mainly harvested are red abalone, rusty clam, bluefin tuna, white shrimp, sole, mediterranean mussel, and japanese and Kumamoto oyster.

As observed, this activity is a source of direct and indirect employment in the region. The art techniques employed are called "minor arts" since the impact on the environment is minuscule. There are government assistance programs mainly for those projects regarding aquaculture, which seem to be growing in fisheries zones.

Small and Medium Enterprises are competitive globally thanks to the effort of the productive chains achieved by the engagement of public and private stakeholders.

The lack of specialization in the sector represents an area of opportunity that requires optimization. Moreover, producers call for greater diversification that allows them to be more competitive in a global market that is complex and in constant evolution.

From a sustainable perspective, the need for stronger institutions and legal frameworks is evident. The regulation

of fisheries demands a greater involvement of the stakeholders. Alternatively, the fisheries workforce in the communities must be held accountable for the health and integrity of the marine ecosystems that, not only do they benefit their own economic activity, but they also support other uses and users by having follow up and control systems as well as the implementation of conservation measures.

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