

Efforts for Improving the Distribution of Fishery Products in Toshima, Kagoshima Prefecture

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Abstract

The fishing industry in remote islands often has disadvantages in terms of the distribution of products. Although remote islands enjoy abundant resources in surrounding fishing grounds, they are at a great disadvantage when it comes to deriving value from such resources. Therefore, fishing businesses in remote islands generally do not tend to be profitable. Fishery is a key industry for most remote islands. There is a possibility that a decline in fishing activity may weaken the local economy, local communities and the multifaceted functions of the remote island's fishing activity (e.g., maritime surveillance function and resource management function). Further, maintenance of the fishing industry on remote islands is a great challenge for the national economy. In this paper, I will discuss the case of Toshima, a village in Kagoshima Prefecture, where the distribution of fishery products has been improved through the introduction of freezing technology. Previously in Toshima, fishery products were shipped fresh using ferries. However, the ferries run only twice a week and are cancelled in bad weather. Further, ferry shipment requires a large amount of time and cost in transporting fishery products to the Kagoshima City Fish Market. In 2011, Toshima introduced state-of-the-art freezing facilities and established a system wherein a private company would undertake the freezing and selling of fishery products. This has resulted in reliable shipping and low transportation cost, among other benefits.

Keywords: disadvantages in terms of the distribution, freezing facilities, low transportation cost, reliable shipping

Purpose of the Study and Challenges

The fishing industry located in remote islands witnesses many disadvantages from production to sales. With respect to production, operating costs are high due to the high cost of fuel and fishing materials. Due to their small local markets, remote islands have to rely on the mainland market and shipping costs to reach such markets are high. Moreover, shipping is restricted by ferry schedules, and the time taken to reach the mainland market results in the reduction of freshness of products, thereby reducing their unit prices.

In this paper, using a case of Nakanoshima Island (one of the islands of Toshima) which has been making efforts to improve the distribution of fishery products through the introduction of freezing technology, I will discuss the history of such efforts, the results achieved so far, and future prospects.

Outline of the Fishing Industry in Toshima

Toshima is a village consisting of the Tokara Islands and has a population of 689 people. The Toshima Fisheries Cooperative has 33 full-time members of which five members are full-time fishing operators. Many of the other members are part-time fishing operators concurrently running accommodation, livestock, recreational fishing boat or other businesses.

The main fishing methods used in Toshima are rod fishing, gillnet fishing and free dive fishing. The village has been witnessing an increase in both the annual catch volume and value. Compared to the levels in early 2000s, the total catch value increased fourfold and the total catch amount increased threefold in 2014 (Fig. 1). These increases were due to the introduction of freezing facilities in 2011. Previously, shipping to the mainland market had to be cancelled when lots were not filled owing to the inability to cover shipping expenses. Now, as will hereafter be discussed, Yamaguchi Suisan, the company that manages the new freezing facilities, purchases even one fish, and because of this, local fishing operators have started shipping out fish and shellfish that would otherwise have to be consumed by the operators themselves. Seeing this as a new income generating opportunity, some elderly fishing operators have started operating more often.

Until 1998, all fishery products from the village were shipped to the Federation of Fisheries Cooperative Associations in Kagoshima Prefecture (hereinafter the Federation), a wholesaler for the prefectural market. However, shipping destinations have become

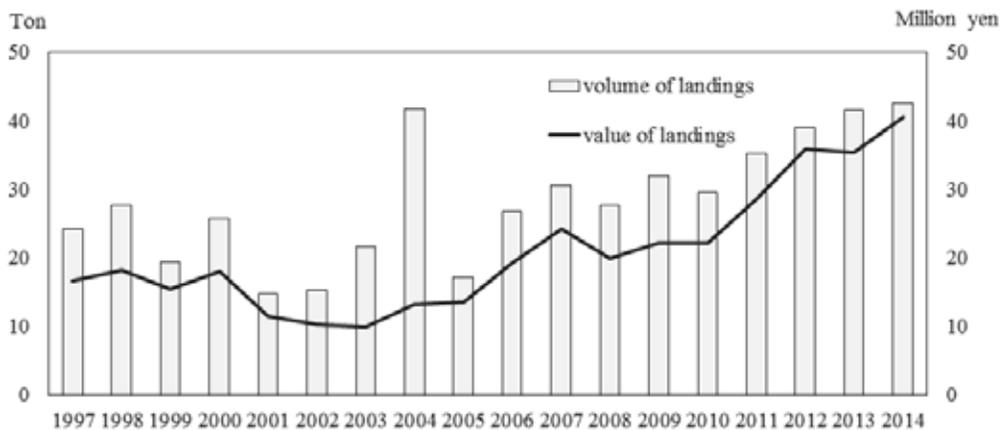


Fig. 1. Change of fishery in Toshima (Source: Toshima Fisheries Cooperative Association).

diversified since 1998 and the rate of selling fish through the Federation has dropped to 60–80% since 1999. The introduction of freezing facilities in Takarajima Island in 2011 and in Nakanoshima and Tairajima islands in 2013 (Yamaguchi Suisan was designated as a manager for these facilities) prompted many fishing operators to send their catches to Yamaguchi Suisan, reducing the rate of selling fish through the Federation to slightly over 10% since 2013.

Unit shipping prices have been rising since 2011 owing to a slight increase in the unit prices of fish and shellfish at the Kagoshima City Fish Market since 2011 and an increase in the available shipping options, among other reasons.

Background on the Efforts to Improve Distribution by Freeze-Shipping

Ferry Toshima, which is used to ship fishery products from Toshima, is operated twice a week, and the annual in-service rate is between 90% and 93%. Its operation is susceptible to natural conditions such as typhoons and seasonal winds; therefore, the shipping of fish and shellfish from the village is dependent on natural conditions.

Further, shipping to mainland Kagoshima by ferry is expensive. For example, transporting 100 kg of fish or shellfish from Toshima to the Kagoshima City Fish Market costs 89.5 yen per kg. In addition to this cost, shipping commissions of 5% and 5.5% are charged by the Toshima Fisheries Cooperative and the Kagoshima City Fish Market, respectively. Due to the high cost of and other restrictions on shipping fish and shellfish, the development of a distribution system has been a challenge for promoting the fishing industry in Toshima.

In the midst of this, in 2011, the president of the Toshima Fisheries Cooperative at the time and a member of the village assembly played a key role in examining the approach to improve the village's distribution system and deciding on the introduction of freeze-shipping. It was agreed that Toshima would pay the cost of approximately 30 million yen for the installation of freezing facilities and Yamaguchi Suisan, as a designated manager, would manage the freeze-processing business and the selling of processed products.

Freeze-Processing Business of Yamaguchi Suisan

History of Yamaguchi Suisan

Yamaguchi Suisan is a wholesaler of fishery products headquartered in Kagoshima City. It operates in Miyazaki, Kumamoto and Oita prefectures as well as Kagoshima Prefecture. In Kagoshima Prefecture, its customers are accommodation businesses and mass retailers. The company also sells fishery products to mass retailers and accommodation businesses in Miyazaki and Oita prefectures.

Business expansion to the Tokara Islands

Background on the launch of the business

In 2011, Yamaguchi Suisan commenced the freeze-processing business in the Tokara Islands. In response to the Toshima Village Office's desire to improve their distribution system for fish and shellfish harvested around the islands, in October 2011, the Toshima Village Office, the Toshima Fisheries Cooperative and Yamaguchi Suisan concluded an agreement on the purchase of local fish and shellfish.

First, in 2011, Toshima installed quick-freezing facilities on Takarajima Island. As a designated manager of the facilities, Yamaguchi Suisan started a business of filleting fish harvested near the island and quick-freezing them. However, the catch amount on the island was too small for the capacity of the facilities, which highlighted the need to use the facilities more effectively.

Then, in 2012, Toshima installed quick-freezing facilities on Nakanoshima Island. The original plan was that the residents of the island would run the facilities; however, the plan was cancelled due to the residents' inexperience in this business and since January 2013, Yamaguchi Suisan has been running the business as a designated manager. It is involved in the business of filleting fish harvested near the island, quick-freezing them and transporting them to Yamaguchi Suisan in Kagoshima City using Ferry Toshima. Mr. Yuhei Yamaguchi was in charge of the business and was essentially based on the island in 2013 and 2014.

When the business was launched, local fishing operators and local residents were keen to know the purchasing conditions, hourly wages at the fishery processing plant etc. It was decided that monthly purchase prices would be set based on the average prices at the Kagoshima City Fish Market. Further, it was decided that in principle, the total volumes of fish and shellfish would be purchased; however, only shallow water fish and shellfish up to two days after harvest and other fish and shellfish up to one day after harvest would be accepted. Other conditions required that the fish caught was properly killed in seawater ice, and blood was removed from yellowfin tuna, skipjack and barracouta. Fish and shellfish that were not sufficiently chilled would be purchased at half prices or returned.

It was decided that local women would carry out freeze-processing. Currently, over 10 women are registered for this role and when fish and shellfish come in, the information is circulated among the registrants and those available to perform the work. The hourly wage has been set at 700 yen.

Development of the freeze-processing business

Apparently, Yamaguchi Suisan experienced many troubles when they launched the business on Nakanoshima Island. Initially, only a small amount of fish and shellfish was brought in. The islanders portrayed a wait-and-see attitude, doubting the motive of the company for starting the business. Most local fishing operators continued to ship their catches to the Kagoshima City Fish Market, sending only a small amount of fish and shellfish (amount not large enough to fill up lots) to the island's processing plant. As a result, freeze-processing at the plant often took only one hour.

In addition, the company had difficulty in handling fish. Once, the company purchased a large amount of skipjacks but had to discard poor-quality fish stacked low in a ship's hold. The company lacked an understanding about the reality of the local fishing operations. They even had difficulty in filleting fish.

With regard to fish species sellable at retail levels, the company continued to accumulate knowledge through the operation of the processing plant and selling activities. Bycatches could only be sold for a limited time and quantity due to their small amounts, making it difficult to incorporate them into the business. On the other hand, species such as Japanese bluefish, splendid alfonsino and Japanese butterfish were selling well, prompting the company to consider increasing the transaction volumes of such fish.

Some local fishing operators misinterpreted "total volume purchase" for Yamaguchi Suisan purchasing fish and shellfish of any quality. Occasionally, fish and shellfish that were improperly treated or harvested several days ago were brought in. The company had to explain to such operators the intentions of the business and asked them to carry out thorough freshness control.

Through these efforts, Yamaguchi Suisan gradually won the trust of the islanders and local fishing operators. From the summer six months after the launch of the business, an increasing number of fish and shellfish started to be brought in. It appears that the benefits of using the processing plant in comparison to directly shipping to the market, e.g., saving of transportation and ice costs, time and effort, were finally understood by the operators.

As the business picked up, the company started receiving requests from clients. Local fishing operators wanted the processing plant to operate whenever they went fishing, including during the Bon period, indicating that the local operators regarded Yamaguchi Suisan as an important buyer. With regard to purchase prices, some operators requested that their products be purchased at higher than average market prices. When market prices remained high, some operators expressed dissatisfaction with the purchase prices set by the company. Yamaguchi Suisan has adhered to the policy of offering average market prices to clients and letting them decide whether they want to sell their catches to the company.

Results of the efforts for improving distribution, future prospect

It has been five years since Yamaguchi Suisan's business in Toshima gained momentum, and local fishing operators have expressed merits of engaging with the business, including the "avoidance of shipping expenses," "saving of time and effort," "ability to sell from small lots" and "stable purchase prices." The introduction of the freeze-processing plants has allowed local fishing operators to operate regardless of the ferry schedule. Another change observed is that the associate members of the local fisheries cooperative, many of whom harvest fish and shellfish for self-consumption, have started using the processing plants. In the past, when they had a good catch, they tended to give away excess fish and shellfish to people on the island because such excess fish and shellfish were not enough to fill lots for shipping. Yamaguchi Suisan, which purchases even one fish from operators provided it is fresh, now functions as a buyer for such fishing operators.

As a result, catches in the district managed by the Toshima Fisheries Cooperative have increased, and the business of Yamaguchi Suisan has grown and now handles a quarter to one-third of the total fish and shellfish yield in the area. On the other hand, the need to strengthen the sales force of Yamaguchi Suisan has emerged.

Conclusion

In this paper, I discussed the effects of the freeze-processing business run by Yamaguchi Suisan and its future prospects. The introduction of freeze-processing plants created a new distribution route not restricted by the ferry schedule, giving local fishing operators another shipping option. Local fishing operators can now determine the buyer of their fish and shellfish considering market prices, catches, transportation cost, time/effort required etc.

Because of the eased shipping-related restrictions, some fishing operators have started going fishing more frequently. In addition, fishing operators who would not send their catches to the market because they could not fill lots are now able to sell their products. As a result, since 2011, both the catch amounts and values handled by the Toshima Fisheries Cooperative have increased, indicating that the installation of the freezing facilities to promote the local fishing industry and the efforts made by designated manager Yamaguchi Suisan have produced a certain level of benefits.

The most significant reason that the development of a distribution system in Toshima has promoted the local fishery production is the involvement of a private company with a strong sales force. It may be true that fishing operators or the staff of a fishery cooperative would be able to produce frozen products if freezing facilities are available and the necessary skills are mastered by them. However, simply freezing fish and shellfish do not make them products of value. Only with the involvement of a company with the required experience and knowledge on product creation and selling does frozen fish become a product in the true sense. Through the collaboration of suppliers (local fishing operators), a private company handling production and selling (Yamaguchi Suisan) and a government that has been providing the necessary facilities (Toshima), the results reported in this paper have been achieved.

P.S.

I hope that this paper assists Indonesia's Maluku Province, which faces similar problems, in developing policies for improving their distribution system.

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