



## Regional Aquaculture Businesses' Efficiency in China's Freshwater Aquaculture

Wang Yihua\*

Department of Economics and Management, Shanghai Ocean University, Shanghai, China

### DESCRIPTION

In China, the freshwater industry is essential to the aquaculture sector. The analysis of the freshwater aquaculture sector's regional competitiveness from a scientific perspective has important theoretical and practical ramifications for promoting the sector's sustainable growth. This study created a system for measuring the competitiveness of the Chinese freshwater aquaculture industry based on the diamond model. It had sixteen secondary indicators in addition to six primary indicators. Resource endowment, production capacity, capability for promoting science and technology, connected and supporting industries, market demand, and guiding development strategy were the main indicators. The 18 major freshwater aquaculture provinces in China were divided into five competitive tiers based on the study's analysis of freshwater aquaculture industrial competitiveness from 2012 to 2020. The findings indicated that the competitiveness is most strongly influenced by the growth of linked and supporting industries. Resource endowment and market demand potential come next. According to analysis and tier classification, while Guangdong, Fujian, Hunan, Jiangxi, Zhejiang, Anhui, Liaoning, and Guangxi provinces were above the middle level. The outcomes also showed an upward trend in the competitiveness of most provinces.

The primary source of aquatic animal food for human consumption is aquaculture, which is the industry with the fastest rate of growth in the world. It not only gives humans a lot of high-quality protein and serves as a crucial supplement to secure global food security, but it also significantly reduces poverty and encourages income growth. 77% of aquaculture products produced worldwide come from freshwater sources. Freshwater aquaculture produces about 80% of the fish that are fed by bait. More than 57% of the world's aquacultural products were produced in China in 2018, making it the leader in the field. China produced more than 35% of the world's aquatic products during the 12th five-year period. More than 60% of aquatic products produced in China between 2007 and 2014 came from freshwater aquaculture, and this percentage increased

over time. China's Central Government introduced the idea of "large agricultural, big grain" in 2016. This made clear how important freshwater aquaculture is to the local population's access to food. A number of opinions on "Accelerating the Green Development of the Aquaculture Industry" were jointly released in 2019 by ten ministries and commissions, including the Chinese Ministry of Agriculture and Rural Affairs. These opinions set out the course for advancing the high-quality development of fisheries and creating a modern fishery power. Under the direction of the development policy of "focused on aquaculture," the Chinese aquaculture industry has accomplished incredible things.

The development of China's fishing economy depends significantly on the freshwater aquaculture sector. A literature search, however, showed that there are fewer studies on the freshwater aquaculture industry's competitiveness than there are on the marine industries. A variety of research methods and viewpoints have been used in earlier studies on the competitiveness of the Chinese marine industry. In terms of methodologies, the competitiveness of the marine industrial sector was primarily assessed and examined by developing an evaluation index system and applying some conventional evaluation techniques. The analytical hierarchy process and fuzzy comprehensive evaluation method were among the evaluation techniques. The Topsis model, the time-series global principal component analysis approach, and the entropy evaluation method. The evaluation object, in terms of viewpoints, encompassed both the general marine business as well as the two specific marine industries, pelagic fishery and marine fish farming. The competitiveness evaluation region also covered specific areas, like as the Shandong Peninsula and 67 county unit fisheries in Fujian province, in addition to the entire coastal area.

And a few earlier studies on the competitiveness of the freshwater aquaculture industry mainly concentrated on the analysis of the competitiveness of one or more freshwater aquaculture products on the worldwide market. Used four different angles to examine the competitiveness of Chinese tilapia

**Correspondence to:** Wang Yihua, Department of Economics and Management, Shanghai Ocean University, Shanghai, China Email: yihuawang@gmail.com

**Received:** 01-Sep-2022, Manuscript No. JARD-22-18878; **Editor assigned:** 05-Sep-2022, Pre QC No. JARD-22-18878 (PQ); **Reviewed:** 19-Sep-2022, QC No JARD-22-18878; **Revised:** 26-Sep-2022, Manuscript No. JARD-22-18878 (R); **Published:** 03-Oct-2022, DOI: 10.35248/2155-9546.22.13.705

**Citation:** Yihua W (2022) Regional Aquaculture Businesses' Efficiency in China's Freshwater Aquaculture. J Aquac Res Dev.13:705.

**Copyright:** © 2022 Yihua W. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

tilapia on the American market: international market share, market price index, trade competitiveness index, and indicative comparative advantage index. By creating the RSCA (Revealed Symmetric Comparative Advantage) index of aquatic products, researchers were able to quantify the competitive advantage level of Chinese exports. The "Diamond Model" was used to analyze the Chinese shrimp industry's global competitiveness. The results showed that the Chinese shrimp industry has clear

advantages in resource endowment. In terms of the study of the Chinese freshwater aquaculture industry's regional competitiveness used the diamond model to build the Chinese crab industry's competitiveness evaluation system and examined the industry's overall competitiveness in 18 provincial regions. The resource endowment coefficient was used to examine the resource endowment benefits of the distinctive freshwater fish sector in 31 Provinces and regions of China.