International Journal of Management, IT & Engineering
Vol. 8 Issue 8, August 2018,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

Quality, Safety, Marketing and Trade of Aquaculture Products

V.Thiyagaraj[#]

M.Umamaheswari[*]

Abstract

Science based aquaculture has driven the growth of this industry globally. One of the greatest will be to get honest, knowledge based perspectives on the potential for profitable development of projects for aquaculture.The rapid growth in aquaculture production has made the sector important to the economy of many developing countries, and it has become either an important source of supply, or the main supplier, in the case of some products.In developing other countries, individual aquaculture producers have undertaken voluntary certification (ISO 9000) for control as well as marketing purposes. Such certification appears to be increasingly required for entry into markets such as multiple retail stores. Awareness of environmental and welfare issues is increasing, particularly in the developed countries, where purchase decisions can be influenced by adverse publicity or a lack of information.

Keywords

Aquaculture and trade, Sea food Marketing,Safety,Quality and Marketing channels.

Introduction

Aquaculture is a catch-all term that encompasses the subsistence, medium- scale or industrial production of commercially important finfish (such as catfish, trout, salmon, tilapia, and various marine species); reptiles (such as turtles, crocodiles and alligators); molluscs (oysters, mussels and clams) and crustaceans (lobsters, shrimp, crabs and crayfish).

Science based aquaculture has driven the growth of this industry globally. One of the greatest will be to get honest, knowledge based perspectives on the potential for profitable development of projects for aquaculture. The growth of aquaculture has led to significant changes in how its products are perceived and marketed. In becoming an important contributor to the markets for seafood, aquaculture is increasingly subject to safety mechanisms and controls, such as the statutory ***Hazard Analysis Critical Control Point (HACCP)*** methodology in certain developed regions. As both safety and trade regulations are harmonized at international levels, quantitative risk assessment and trace-ability will become integral components of aquaculture management.

Developing countries have increased their share of the seafood export market to nearly 50 per cent of global trade, a significant portion being represented by aquaculture products (shrimp, salmon, molluscs, etc.), a percentage that should increase with the continued expansion of the sector. The long-term viability of aquaculture development will be market driven, accounting for consumer demand and the capacity to adapt to the structure and legislative demands of the target markets.

[#] Assistant Professor of Commerce, P.G Department of Commerce, Rajeswari Vedhachalam Govt. Arts College,Chengalpattu – 603 001.

[*] Assistant Professor of Aquaculture, P.G.Department of Advanced Zoology and Biotechnology,Govt. Arts College for Men, Nandanam, Chennai-600 035.

Aquaculture and trade

International seafood exports reached US$48 billion in 1998 (provisional FAO data), up from US$36 billion in 1990, but down slightly from the figures for 1996 and 1997. Therefore, the major crop failures in Asia and Latin America during the past few years (caused by disease problems) have had a significant impact on overall supply, demand, prices and consumption trends.

The rapid growth in aquaculture production has made the sector important to the economy of many developing countries, and it has become either an important source of supply, or the main supplier, in the case of some products. The share of developing countries in seafood exports grew from 43 per cent to 49 per cent between 1990 and 1997, giving net receipts of foreign exchange that rose from US$10.2 billion to US$15.8 billion.

For these farmed products, production fluctuations have had a significant impact on price trends. In general, however, aquaculture products have helped to stabilize traded supplies and to bring down prices over the years. The extent of regional and international trade in aquaculture products is difficult to analyse because trade in many aquaculture products is not yet well documented in all the main producing countries.

The major markets are Japan, the United States of America and, to a lesser extent, the EC, while the largest exporters of farmed shrimp are Thailand, Ecuador, Indonesia, India, Mexico, Bangladesh, and Vietnam. Demand for shrimp is expected to increase in coming years, where Asian markets, such as China, the Republic of Korea, Thailand and Malaysia, will expand as local economies recover and consumers' demand more seafood. This trend is already reducing the availability of shrimp to traditional importers and will eventually put upward pressure on prices if supplies do not increase.Trade in crab species has also increased with growing aquaculture production (1997: 165 000 mt). Especially important have been the exports of China (19,000 mt., in 1998) to Hong Kong SAR China and Japan (INFOYU, 1999).

Finfish

In terms of total aquaculture output, finfish ranks first, with 49 per cent of the total production from aquaculture, of which the major part are carp species, which are consumed locally in the producing countries (mainly China and India). As opposed to shrimp, finfish aquaculture trade appears to be split between species having a high traditional demand and a "quality" image (e.g., salmon, seabass etc.) and convenience products (mainly fillets) of "cheaper" fish species (e.g., tilapia).

Influence of Environmental and social concerns on markets

Environmental and social concerns can influence markets for consumer goods and have already influenced farmed shrimp exports to North America and Europe in recent years. There is a growing desire for knowledge of what is being consumed, a position that, in some cases, is accompanied by accountability for consumption. Awareness of environmental and welfare issues is increasing, particularly in the developed countries, where purchase decisions can be influenced by adverse publicity or a lack of information.

Food Quality and safety

With growing concern about food safety, increasing efforts have been undertaken to improve the quality of food that is placed in the market, which evidently includes aquaculture. In developing other countries, individual aquaculture producers have undertaken voluntary certification (ISO 9000) for control as well as marketing purposes. Such certification appears to be increasingly required for entry into markets such as multiple retail stores. Alternative efforts include the development of industry-led quality schemes, which require government approval, to which individual producers can adhere. These schemes have controllers and strict operating procedures and conditions, serving to provide products of high quality and known origin.

Sales and marketing

Attaining and maintaining consumer confidence requires considerable effort. It is no longer satisfactory to believe that production of a ***"High Value Aquaculture Product*** "is a guarantee for the producer's long-term success. The long time required between investment in stocks and financial returns from sales can force producers to sell too early or at low prices, simply because of current cash needs, a circumstance that is punctual and rarely accompanied by marketing efforts.

The geographic dispersion of the activity and the relatively small amount of production per unit mean that there are a high number of sellers to markets that have few buyers (in number), a situation that gives keen competition and an advantage to the buyer. In addition, the aquaculture sector in developing countries is relatively young and spends little money on marketing and promotion, particularly at the producer end of the scale. Aquaculture produces perishable products with a short shelf life, particularly where products are sold fresh, meaning that distribution skills and production planning (to avoid surplus supplies to markets at specific times of the year) must be honed to meet market demands.

Distribution channels

The growing market share of multiple retail stores (super- and hypermarkets) in the distribution of foodstuffs has significantly changed patterns of production, supply, and distribution.

Food security

Aquaculture has also become a significant source of foreign currency for many developing nations, since the products exported are usually the more valuable ones destined for markets in the developed world. Aquaculture is an important source of seafood, and the major part of the total output from aquaculture is consumed internally by the nations that produce, providing employment and an important nutritional contribution to society. These revenues allow the countries to import other less costly protein and, as such, aquaculture plays an important role in food security, even where significant proportions of the output are exported.

Conclusions

Consumer demand for specific products, combined with good business opportunities, has contributed to the rapid development, and restructuring of certain aquaculture sub-sectors, notably those concerned with export to developed countries. The circumstances of producing and marketing fish and seafood produced from aquaculture are changing quickly. Sustainability and environmental friendliness are also factors that are being linked to acceptability and, hence, influence quality, marketing and trade issues.

References

1. Dey, M.M. & Eknath, A.E. 1997. Current trends in the Asian tilapia industry and the significance of genetically improved tilapia breeds. In K.P.P. Nambiar and T. Singh, eds. 1997. Sustainable aquaculture. Proceedings of INFOFISH-AQUATECH '96 International Conference on Aquaculture, Kuala Lumpur, Malaysia. INFOFISH, Kuala Lumpur, 248 pp.
2. FAO. 1995. Impact of the Uruguay round on international fish trade. GLOBEFISH Research Programme, Vol. 38.
3. FAO. 1999a. FAO GLOBEFISH Commodity Update on Shrimp, 76 pp.
4. FAO. 1999b. Aquaculture production statistics 1988-1997. FAO Fish. Circ. No. 815, Rev. 11, 203 pp.
5. FAO. 1999c. FAO yearbook of fishery statistics: commodities. Vol. 85, 1997, 192 pp.
6. FEAP (Federation of European Aquaculture Producers). 1999. www.fishlink.co.uk/feap.
7. INFOYU. 1999. China Seafood Imports and Exports in 1998, 64 pp.

8. Japanese Marine Products Importers Association. 1999. Import statistics 1998.

9. Kontali Analyse. 1999. Monthly salmon report, No. 4, Norway.

10. NMFS (National Marine Fisheries Service). 1999. Import statistics, 1998, www.nmfs.gov.

11. Riepen, M. 1997. The Asian market for live seafood. In K.P.P. Nambiar and T. Singh, eds. 1997. Sustainable aquaculture, p. 177-183. Proceedings of INFOFISH-AQUATECH '96 International Conference on Aquaculture, Kuala Lumpur, Malaysia. INFOFISH, Kuala Lumpur.

12. USDA (United States Department of Agriculture). 1997. Aquaculture outlook, March 4, 1997.