

Globalization and Aquaculture: Challenges, Opportunities, and Questions for the Smoked Seafood Industry

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Introduction

The world seafood industry is changing rapidly. This paper describes some of the most important changes that are happening and suggests questions people in the smoked seafood industry should be thinking about in order to respond to these changes.

Globalization of the world seafood industry

The world economy is experiencing far-reaching changes that are collectively referred to as “globalization.” Among the causes and consequences of globalization are increasingly reliance on markets; reductions in trade barriers and expansion of trade; world economic integration in markets for resources, goods, services, labor, and capital; movement of production to low-cost producers; consolidation and integration resulting in larger and more powerful firms operating in many countries; technological revolutions in communications and transportation; growing consumer incomes in developed and developing countries; and increasing consumer expectations for lower prices, convenience, variety, and quality.

Globalization is rapidly transforming seafood production, processing, distribution, and retailing. Globalization is bringing

- Rapid expansion of seafood trade.
- Rapid growth in aquaculture.
- Rapid technological change in processing, transportation, logistics, and marketing.
- The emergence of major new seafood markets as countries in East Asia and formerly socialist countries industrialize and become more open to trade.
- Increasing consolidation and growing concentration of market power in the retail and food service industries.
- Growing demand for new seafood product forms.
- Increasing pressure on seafood suppliers to improve quality and lower costs.
- Restructuring of seafood distribution networks.
- Shift in labor-intensive seafood processing to countries with low labor costs.

- Stricter international standards for food handling and safety.
- Emerging demands for environmentally sustainable and socially responsible seafood production.

Globalization is contributing to the growth of two kinds of seafood buyers—very different in scale—who represent two kinds of market opportunities for smoked seafood producers. Ever-larger retail and food service chains are emerging as a result of consolidation in the retail and food service industries—companies such as Wal-Mart, Costco, Safeway, and Darden Seafoods (which operates numerous restaurant chains) (Fig. 1). These companies represent a growing share of the seafood market in the United States, Europe, and Japan—as well as in new markets such as Russia and China. For these companies, a single person may make the seafood buying decisions for hundreds of stores and restaurants. In general, to meet the needs of their companies and their customers, these buyers want to buy seafood products that

- Can be supplied consistently, reliably, and in large volumes.
- Can be supplied at stable and competitive prices.
- Are viewed by consumers as safe, convenient, and attractive.
- Are traceable through the entire chain of production and distribution.
- Are perceived by consumers as safe and healthy.

In general, it is difficult for small seafood producers to sell to these large buyers, because they cannot consistently and reliably supply large volumes.

Globalization is also contributing to the growth of “specialty” stores and restaurants catering to consumers who are relatively less concerned about price and relatively more interested in quality, variety, and other product attributes. Buyers for these stores and restaurants are more likely to be looking for seafood products that consumers will perceive as high quality, healthy, organic, natural, local, and/or environmentally and socially responsible.

“Specialty” stores and restaurants, ranging from local businesses to larger chains such as Whole Foods, represent a market opportunity for smaller seafood producers who



Figure 1. Large chains such as Wal-Mart and Costco keep costs low by buying in very large volumes. These companies want to buy products that can be supplied consistently in large volumes at stable and competitive prices.

are not able to meet the volume demands of large buyers. However, these smaller buyers also want products that can be supplied reliably and at competitive prices.

What do seafood buyers want? What do consumers want? There isn't any single answer. There are many market niches with many kinds of buyers selling to many kinds of consumers who want many kinds of products—all with different requirements for volume, price, quality, and other product characteristics. The important point for smoked seafood producers is to have a clear understanding of the needs of the buyers and consumers of their products—and to recognize that globalization is bringing all buyers and consumers more options for meeting those needs, and making all buyers more interested in seafood quality, safety, and traceability.

The aquaculture revolution

An aquaculture revolution is occurring in world seafood production. Farmed seafood accounts for a large and growing share of world seafood production (Fig. 2). Fish farmers now provide most of the supply of four of the top six seafood spe-

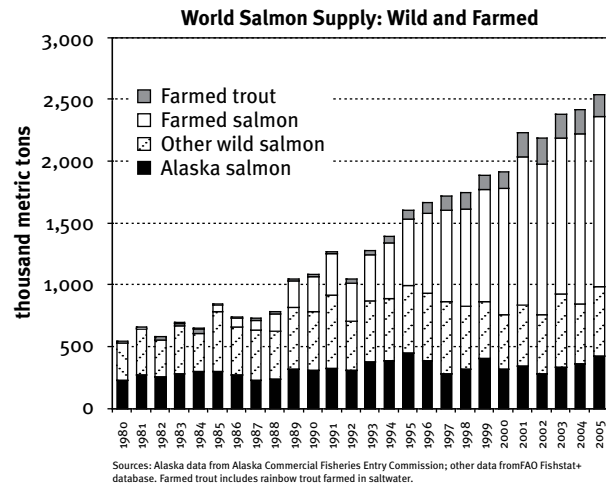


Figure 2. Between 1980 and 2004, Alaska wild salmon's share of world salmon supply fell from 42% to 17% as farmed salmon production grew dramatically.

cies consumed in the United States: shrimp, salmon, catfish, and tilapia.

Aquaculture is growing rapidly because it can meet market demands—particularly those of large retail and food-service buyers—for predictable, year-round, and growing supply of good quality seafood (Fig. 4). It is critical for wild seafood producers to recognize the reality of the market advantages farmed fish have in meeting market demands, particularly those of large buyers. It is critical for wild seafood producers to work to overcome—to the extent possible—the market disadvantages created by varying and uncertain seasonal supply and inconsistent quality.

Understanding how wild and farmed fish compete requires looking at the entire systems for producing, processing, distributing, and marketing wild and farmed fish. For example, the relatively higher costs of growing salmon rather than catching them wild are significantly offset by the lower costs of processing farmed salmon in facilities that operate year-round.

Some wild seafood producers point to challenges faced by aquaculture, such as diseases, negative environmental



Figure 3. Fresh tilapia for sale at Swanson's Store, Bethel, Alaska, April 2002.

effects, limits to the supply of wild fish–based feeds, and dependence on artificial coloring. While these are real challenges for fish farmers, they do not mean that aquaculture will not continue to grow in supply or that competition from aquaculture will go away.

Certainly fish farming has limited potential in some places, and farmed fish products have limited potential in some markets. But globally there is enormous potential for future growth in aquaculture. Fish farmers can respond to challenges they face by changing what fish they grow and how and where they grow them. For example, salmon farmers can substitute vegetable-based feeds for fish-based feeds. The rapid growth in consumption of farmed salmon, shrimp, tilapia, and other products proves that buyers and consumers will accept farmed products (Fig. 3).

Wild seafood producers can continue to compete successfully as world aquaculture production grows. As the supply of fish grows—as fish becomes more widely available in more places and more product forms over more of the year—consumer demand for fish also expands. As consumer demand expands, more market niches are created for wild seafood—including smoked wild seafood products (Fig. 5).

Questions for the smoked seafood industry

How can people in the smoked seafood industry best prepare for and respond to the changes in the seafood industry that globalization and aquaculture are bringing? A starting point is thinking about answers to questions you are likely to face, such as the following:

How will your competition change? Globalization is opening new markets for you around the world—but it is also opening new markets for new competitors. What new competitors may emerge for you? Where will they get their fish? What technologies will they use? What competitive advantages and disadvantages will they have compared with you? What will you need to do to compete successfully?

What new safety and health concerns are likely to arise for smoked seafood? Global seafood consumers are becoming increasingly safety and health conscious. With globalization of the press, concerns about a product's safety and health effects—including concerns that have no basis in fact—can be reported almost instantaneously worldwide, with immediate and dramatic effects on buyer and consumer demand. Groups that promote or claim to promote consumer health and food safety—both government and private—may intensify the media focus on particular concerns. Anyone in the food industry should think carefully about what real or perceived concerns might arise with respect to the safety and healthfulness of their products, and how to minimize the risks associated with such concerns.

What regulatory changes may occur for smoked seafood products? Reflecting in part concerns about food safety and health, regulatory agencies worldwide are adapting stricter regulations on processing technology, smoking temperatures and time, packaging, labeling, and product naming. What regulatory changes may affect your products? How would you respond?

What kinds of traceability and sustainability will markets demand for the fish you use to make your products? Increasingly, buyers for your products are likely to want to know where your fish or shellfish were harvested, and whether they were harvested from “sustainable” fisheries. Can you trace the origin of your fish? How will you assure buyers that they were “sustainably” harvested?

How may demand change for your products? If you make a traditional smoked seafood product and sell it to a traditional market for that product, how is that market likely to change? What are the demographics of the consumers of your products? If they are aging, are younger consumers likely to continue to demand the product?

What are potential new markets and products for smoked seafood? How can you reach these markets? How can you work together with others in your industry to encourage growth of new markets?

Conclusions

World seafood markets are experiencing rapid and profound change. Globalization is creating new opportunities and new



Figure 4. A sculptor for the annual Anchorage “Salmon on Parade” competition—like many Alaska fishermen—thinks farmed salmon are “insipid, toxic, dyed, and mushy.” But market reality is that farmed salmon meets the needs of large buyers for a high-quality product available fresh in large volumes consistently throughout the year.



Figure 5. Wild and farmed smoked salmon. Aquaculture represents a major new source of supply for the smoked seafood industry, and new competition for wild seafood producers.

challenges for seafood producers. Aquaculture is profoundly changing who is producing seafood, what is produced, and what it costs to produce it. For seafood producers, these changes are bringing more opportunities in more markets around the world, more competition from more suppliers around the world, and more demands from buyers. The producers who understand and prepare for the changes that are happening are most likely to succeed.

In understanding and preparing for change, two common-sense strategies—which apply to any industry at any time—are becoming increasingly relevant for smoked seafood producers:

- Learn about your markets and your competitors. Travel. Attend trade shows. Meet your customers—the people you sell to, the people they sell to, and the people who ultimately consume your product. Learn

what they want. Learn what they think about your product, and how it compares with your competitors' products. Learn how they think the market is changing, and why. Think about your competitors. Who are they? Where are they? What advantages and disadvantages do they have compared with you? What can you learn from them?

- Work together as an industry to address issues of common interest. Smoked seafood producers have many areas of common interest. You can confront new challenges and take advantages of new opportunities more effectively if you work together with others in your industry. Some of the areas in which the smoked seafood industry may most benefit from cooperation include generic marketing, marketing research, and monitoring and lobbying for regulatory changes.

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Seafood Publications

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Advances in Seafood Byproducts: 2002 Conference Proceedings. P.J. Bechtel, ed., 2003, AK-SG-03-01, 566 pp., \$25.

Alaska's Ocean Bounty. A laminated 11 × 17" placemat/poster. SG-ED-31, 10 or more \$5.00 each.

Common Mistakes in HACCP (7 topics). L. Brown, ASG 38-44. Free download.

Developing Cooperatives for the Alaska Seafood Industry. G. Haight, A. Crow, and H. Geier, 2007, MAB-61, 45 pp., \$10.

Marketing and Shipping Live Aquatic Products. B.C. Paust and A.A. Rice, eds., 2001, AK-SG-01-03, 320 pp. \$20.

Planning for Seafood Freezing. E. Kolbe and D. Kramer, 2007, MAB-60, 126 pp., \$15.

Planning Seafood Cold Storage, 3rd edn. E. Kolbe, D. Kramer, and J. Junker, 2006, MAB-46, 60 pp., \$10.

Recoveries and Yields from Pacific Fish and Shellfish. C. Crapo, B. Paust, and J. Babbitt, 2004, MAB-37, 32 pp., \$5.