

May 2014

An Analysis of North Carolina's Seafood Industry: Market Readiness Assessment



Jessica Newsome

Center for Environmental Farming Systems Supply Chain Fellow

North Carolina State University Poole College of Management Jenkins MBA Program

Report Date: May 7, 2014

Contents

Introduction	3
Background	3
Supplier Characteristics	3
Buyer Characteristics	4
Strategic Fit Analysis	5
Attractiveness of Mainstream Market Channels	5
Grocery and Foodservice Business Model Comparisons	5
Bridging the Gap to Selling Through Mainstream Markets	9
Future Research	12
Conclusion	12
Appendix	13
North Carolina Seafood Survey	13
North Carolina Seafood Buyers Survey	13
Grocery Vendor Requirements	13

Introduction

This report, the second analysis phase on North Carolina's seafood industry, is an assessment of market readiness and business fit between the NC Growing Together (NCGT) project partners and small and mid-scale North Carolina fishing operators. The report provides an evaluation of small and mid-scale commercial fishermen's ability to sell to the NCGT project partners. Finally, the report provides recommendations on how to alleviate barriers to selling through the project partners.

Report insights were gathered from interviews conducted with the project partners and a sample of small and mid-scale North Carolina fishing operators. The collected information was used to assess market readiness and strategic fit between the two groups. Moreover, interview data and findings from the first report were used to develop recommendations on how to exploit opportunities to incorporate North Carolina seafood into inland mainstream markets as well as how to improve access to selling to NCGT project partners.

Background

Supplier Characteristics

A sample of six fishing operators was interviewed for this study. A supplier survey was developed to gain insight into each operator's current business operations, profitability (i.e. sales, expenses, margin), and general distribution capabilities. Customer trend data concerning seafood species consumption and demand were also collected from suppliers; however, these data are presented in the first report. For more information on the supplier survey questions, refer to the North Carolina Seafood Survey in the Appendix.

Supplier interviewees were selected to be representative of operators on the supply-side of the seafood supply chain. Respondents have been in business from 10 to 75 years, with a group average of 38 operational years. All but one of the six is a North Carolina Catch group member. Overall, the interviewees value the opportunity to network and support each other via catch groups as well as the consumer education and local seafood promotion that catch groups provide.

The survey respondents consisted of four small and midscale fishing operators and two large fishing operations. Large operators were interviewed to provide insight into the operational and financial requirements a supplier needs to successfully sell to mainstream markets. Participants, based on their primary business services, were 2 fishermen, 2 primary and secondary processors, and 2 vertically integrated business services ranging from fishing operations to wholesale distribution.

The respondents were segmented for analysis purposes into four levels based on total annual sales. This measurement was selected as a business size metric in order to understand size differences between suppliers and how size might affect fit between a supplier and the NCGT project partners. The four supplier levels were categorized as follows:

Level 1: Total annual sales up to \$250,000 per year

Level 2: Total annual sales from \$250,000 to \$1 million per year

Level 3: Total annual sales \$1 to 5 million per year

Level 4: Total annual sales more than \$5 million per year

The annual sales segments are based on those used by the North Carolina Department of Agriculture & Consumer Services' Seafood Directory. For the purposes of this study, a small scale fishing operator is a supplier within the Level 1 category, a mid-scale fishing operator is a supplier within the Level 2 category, and a large scale operator is either in the Level 3 or Level 4 category. The 2 fishermen qualify as Level 1 suppliers, the 2 primary and secondary processors qualify as Level 2 suppliers, and the 2 vertically integrated operators qualify as Level 3 suppliers. No survey respondents qualified for Level 4 based on self-reported total annual sales.

Buyer Characteristics

Two NCGT project partners were interviewed for this study using a buyer survey. These partners are seafood buyers and represent the types of mainstream market channels that the project is seeking to connect Levels 1 and 2 fishing operators to for selling purposes. The surveyed partners are a grocery retailer with estimated total annual sales of more than \$5 million, and a food service wholesaler-distributor with estimated total annual sales of more than \$1 billion. In both businesses, seafood represents a small portion of total sales for the overall business.

Like the supplier survey, the buyer survey was developed to gain insight into each partner's current business operations – specifically each partner's buying trends and vendor (i.e., supplier) requirements. Customer trend data concerning seafood species consumption and demand were also collected from buyers. However, these data are presented in the first report. For more information on the buyer survey questions, refer to the Buyers Survey in the Appendix.

A key observation from the survey results is that each business defines locally sourced food differently. The grocery partner defines local as food from South Carolina to Virginia; whereas the food service distributor used its Raleigh, NC division definition for local which is food within the state of North Carolina. However, the critical aspect for both businesses' classification is that food purchased from a vendor meeting the company's definition of local can be considered as local regardless of where the food is produced or obtained.

Strategic Fit Analysis

In connecting Level 1 and 2 fishing operators to inland, mainstream market channels, both buyers and suppliers would be exposed to high levels of uncertainty. Both groups will have more operational and financial risk as well as face high opportunity costs by forgoing sales from established profitable distribution channels in exchange for unknown sales volume from these new channels. Accordingly, the profitability of these new supplier-buyer relationships is unknown for both parties. Therefore, it is important to assess the feasibility of connecting Level 1 and 2 fishing operators to the NCGT buyers to better understand how these risks could be reduced to ensure successful partnerships.

Both the buyer and supplier survey questions were designed to aid in capturing information to help with this assessment. At a high level, two factors were selected for evaluation in this part of the project:

- 1. Attractiveness of inland, mainstream market channels to Level 1 and 2 suppliers.
- 2. Capabilities and value chain match between the two parties.

The first factor – attractiveness of inland, mainstream market channels – addresses financial risk by qualitatively determining the economic sustainability of connecting Level 1 and 2 suppliers to large buyers. The second factor – capabilities and value chain match – addresses operational risk by understanding buyer requirements and Level 1 and 2 suppliers' ability to meet those requirements thereby adding value to the NCGT project partners. While all risk and uncertainty cannot be removed from the proposed new buyer-supplier relationships, understanding these factors will help in devising plans to diminish the barriers to selling through these channels. To this end, the attractiveness of selling through mainstream market channels depends on the best fit between suppliers' and buyers' business models and value chains, which are evaluated in the following sections.

Attractiveness of Mainstream Market Channels

According to buyer respondents, their organization's top management is very interested in developing new local suppliers for North Carolina seafood products. In addition to interest, there is room for expanding the amount of locally-sourced North Carolina seafood that the respondents currently buy. Of the seafood purchased in a year, the U.S. Foods buys up to 5 percent whereas Lowes Foods buys more than 25 percent of locally-sourced NC seafood. Seafood products bought include flounder (food service) and shrimp (food service and grocery), although Lowes Foods is interested in expanding its North Carolina seafood offerings. Refer to the first report for a discussion on commercially viable species for more information.

Grocery and Foodservice Business Model Comparisons

Lowes Foods, the grocery retailer based in Winston Salem, North Carolina, owns a chain of over 100 stores in North Carolina, South Carolina and Virginia. The business's value proposition - "good for you" -

is carried out in the company's commitment to offer the freshest and most appealing products to its customers. Lowes Foods has expanded this proposition by seeking to offer locally sourced foods in many of its grocery departments, including seafood. It currently offers a Carolina Shrimp branded product in its seafood department, which is comprised of shrimp supplied by a North Carolina based vendor. Lowes Foods has also committed to helping this vendor to establish a processing facility in Oriental, NC in order to move shrimp processing activities from Georgia to within the state.

As an NCGT project partner, Lowes Foods has participated in a North Carolina seafood pilot test involving black grouper sourced from Level 1 and 2 fishing operators. The pilot proved to be successful with the company's customers in the Chapel Hill market. As a result, Lowes Food would like to extend its North Carolina seafood offerings to more of its stores and has expressed a commitment to helping Level 1 and 2 fishing operators to move product accordingly. This makes Lowes Foods a potentially successful mainstream channel for Level 1 and 2 fishing operators.

U.S. Foods, Inc. the foodservice distributor based in Rosemont, Illinois, employs about 25,000 associates in more than 60 locations. It has acquired other smaller foodservice distributors such as Monarch Foods, and now sells more than 350,000 national brand products and its own private label items to restaurants, healthcare and hospitality facilities, government operations and educational institutions. Product offerings range from meats to produce to frozen foods. The company was recently acquired by Sysco in December 2013.

The company's value proposition - to transform the foodservice industry by creating a superior food proposition and delivering solutions for customers - is implemented by providing kitchen management tools, cost control measures, and ideas in addition to providing food and kitchen supplies. U.S. Foods' national presence means that local food is regionally defined and often times is service area specific, given the volume of food it distributes. For example, potential customers wanting North Carolina seafood would be foodservice businesses located east and southeast of Interstate 85 both in state and in Virginia.

As an NCGT partner, U.S. Foods, Inc. has expressed interest in sourcing local food for distribution to these foodservice customers. However, the company's need for a consistent high volume of seafood makes it a less than ideal buyer for Level 1 and 2 fishing operators as they cannot meet volume requirements. Despite this reality, U.S. Foods may already buy and distribute some percentage of North Carolina wild caught seafood through the Wanchese Fish Company, a Level 3 supplier based in southeast Virginia. This vendor operates on a large scale and buys some of its seafood supply from Level 1 and 2 fishing operators in North Carolina in addition to running its own fishing vessels off the coast of North and South America.

Capabilities and Value Chain Match Between the Two Parties

Project Partner Vendor Requirements

At minimum, each project partner has these standard insurance requirements for any potential vendors: commercial general liability, automobile, and worker's compensation and liability. Insurance amounts are \$2-3 million for general liability, \$5 million for automobile liability, and worker's compensation coverage varies based on statutory limits. In addition, vendors are required to adhere to state and federal food safety regulations such as HACCP, labeling and traceability requirements, and other FDA directives. Refer to Vendor Requirements in the Appendix for more details.

Beyond these standard requirements, the partners have unique vendor policies based on their selling needs. For example, Lowes Foods prefers its vendors to provide information such as catch location, boat name, and photos to help sell the local seafood product. Moreover, the grocer's vendors are to agree to receive net payment 30 days after invoicing. Additional vendor requirements provided by U.S. Foods involve seafood vendors agreeing to a 95 percent guarantee on weekly pricing and to compliance auditing by the company. In total, Level 1 and 2 fishing operators might have difficulty in meeting standard and business specific vendor requirements due to constrained financial resources, inability to predict catch volume and thus inability to commit to pricing.

Value Chain Analysis

A value chain depicts the activities that a firm does in order to create a product or service that customers find to be valuable, which in turn results in margin for the firm. Value chain analysis was done to analyze the touch points between the NCGT partner and potential vendors and the resulting impact on sales and margin from the new buyer-vendor partnerships between the Level 1 and 2 fishing operators and project partners. The value chain framework depicted in Figure 1 will be referenced in the following discussion on profit impact to the project partners as a result of connecting new vendors to their value chain.

Across both partners, Level 1 and 2 fishing operators would have to be capable of interacting with procurement and the company's infrastructure (i.e., finance, accounting, and legal departments), with operations and logistics via product deliveries (i.e., inbound logistics), and with marketing and sales through providing promotional materials (applies only to Lowes Foods).

Inbound Logistics
Operations
Outbound & Service
Sales

Infrastructure (e.g., accounting and legal)
Human Resources Management

Procurement

Figure 1: Value Chain Framework for Project Partners

Grocery Value Chain Evaluation

Lowes Foods' vendor requirements and expected level of buyer-supplier interaction create a high level of integration and dependency between it and potential vendors. Therefore, selling through this channel requires new vendors who possess a high degree of business knowledge and are capable of providing very responsive customer service. A lapse at any of the aforementioned value chain connection points between a vendor and the company would adversely impact Lowes Foods ability to provide customer service and thus decrease profits for the entire chain.

As a retailer, Lowes Foods exposes itself to more operational risk because it has to rely on its vendors for products and it also depends on distribution and logistics to make sales. Therefore, the company may be indifferent to how product is distributed so long as product flows are not disrupted. However, distribution model choice is more of a concern for new vendors since each choice has its pros and cons for Level 1 and 2 suppliers.

On one hand, distributing through MDI is beneficial since new vendors can rely on the company's logistics and distribution expertise to move product to the stores; thus freeing the vendors to focus on supplying Lowes Foods. However, the distance from the coast to Hickory makes inbound logistics more closely. On the other hand, distributing direct to store reduces transportation costs for Level 1 and 2 suppliers.

However, direct to store is not a scalable distribution strategy. If it becomes the default model then the both partners – Lowes Foods and the new vendors - would earn fewer margins. Therefore the new supply chain's success relies heavily on selecting Level 1 and 2 fishing operators who have a high understanding of business in addition to possessing the ability to meet product volume and vendor requirements.

Foodservice Value Chain Evaluation

U.S. Foods' vendor requirements and expected buyer-supplier interaction level are relatively low in comparison to selling through a grocery channel. New vendors would not be required to engage with more of the company's functional groups beyond those mentioned in the value chain analysis section. However, while business knowledge and customer service capabilities are still important attributes for a new vendor, the most important aspect in this value chain is the vendor's ability to meet product supply needs as set by the procurement function.

A lapse in this area would have limited adverse impact on U.S. Foods' operations as the company sources from multiple, large scale seafood vendors. But, a lapse could place Level 1 and 2 fishing operator into financial distress. This is result assumes operators of this size could meet supply requirements in the first place and the operators have a high level of dependency on U.S. Foods for sales.

Bridging the Gap to Selling Through Mainstream Markets

Ultimately, Level 1 and 2 suppliers will have a steep learning curve in terms of adapting their current business practices for selling through mainstream channels. Accordingly, they will require some degree of assistance beyond simply connecting with NCGT project partners. The following goals – depicted in Figure 2 - are points around which the Center for Environmental Farming Systems can use to bring the project partners and Level 1 and 2 fishing operators together so that selling to inland mainstream markets can be achieved.

Build New Partner Relationships: There needs to be a greater understanding between the project partners and North Carolina's seafood industry if accessing mainstream markets through either channel is going to happen. Step one in building a new partnership: understanding each other's business. Level 1 and 2 operators will also need to build relationships with new, inland processors. The way of doing business Formal contracts would be helpful in initiating new partner relationships as coastal operators are used to doing business with familiar parties through social contracting.

Increase Supply Access: Operators need aggregators – people who bring seafood supply to one point for distribution. Suppliers gain because aggregators help to reduce transportation costs and ensure adequate product volume and flows to meet project partners demand. Buyers gain because aggregation provides a central sourcing point which would make it easier for project partners to buy seafood and provides visibility to the supply chain.

Encourage Project Partner to Consider Novel Approaches to Aid New Vendor's Ability to Meet Requirements: Access to mainstream markets will require considerable financial investment and business knowledge development. Possible solutions would be to link these operators to Level 3 processor who can meet the insurance requirements on behalf of its smaller partners or have partners to make direct financial investment in developing vendors. Alternatively, buyers can create vendor skills development programs to help suppliers improve business acumen. Where possible, they can also relax preferred requirements or seek ways to absorb costs to reduce burden on suppliers.

Explore Ways to Solve Logistics Challenges: Transportation costs are existing challenges for Level 1 and 2 fishing operators because low or limited supply volume makes it difficult for these operators to meet full truck load levels in order to gain on lower freight costs. Also trucking options to move product inland are few as transport companies that haul seafood along the coast are not set up to drive long in-state distances. Potential solutions are to explore shortening the supply chain length by introducing move distribution points to reduce trip mileage; contracting with partners to backhaul product on their freight; and engaging additional transportation companies to haul seafood. Formal contracts can be an effective tool here as well in helping to establish these connections.

New Partnerships

Inland Supply Chain

Contracts and Investment

Figure 2: Supply Chain Requirements to Sell NC Seafood in Mainstream Markets

Ways Level 1 and 2 Operators Can Overcome Mainstream Market Channel Barriers

Fishermen need to increase their bargaining power with buyers and find a method of sharing investment costs and risk from selling to new markets whether they are mainstream channels like grocery or foodservice or direct to consumer. A cooperative structure can help achieve both goals, and catch groups appear to be a viable option toward this direction. Refer to Figures 3 and 4 for more information.

High volume Seafood Dealers and Brokers orchestrate the flow of North Carolina seafood in- and out-of-state, and therefore know how much is available for sale (i.e., uncommitted). They need to be engaged in discussions on selling inland by showing them how lucrative the inland markets are as compared to traditional markets. Once this aspect is demonstrated, they might be more incentivized to free up seafood supply for sale inland.

The project partners' business models are anchored around processing capability, since both buyers contract with vendors for this competency. Accordingly, this is the value add service for which they are willing to pay vendors. Therefore, to connect Level 1 and 2 fishing operators to these markets an operator should have access to the processing skills required to cut, pack, and ship relatively high volumes of seafood on a consistent basis.

An integral component of overcoming barriers is the retailer and consumer education piece. This process should be done simultaneously through NCGT to help retailers understand the business climate of NC seafood but also why selling diverse local species is important and an available option to them as a means of diversification. However, retailers may be reluctant to sell a new species that has unknown demand. Inland consumers should also be exposed to promotion and advertising that educates them on North Carolina's seafood biodiversity in addition to discovering that its available to them at their local

grocery store. This pull aspect will make buying new species less risky for the retailer and can help to offset supply access issues by promoting and selling seafood as it is available and accessible.

Figure 3: Recommendations on Overcoming Mainstream Market Barriers

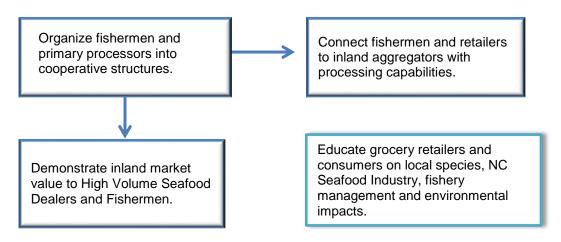
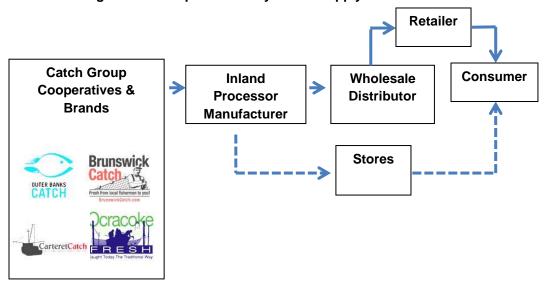


Figure 4: Conceptual Grocery Inland Supply Chain



Future Research

The following additional research should be done to continue developing inland mainstream market channels for North Carolina seafood:

- 1. Conduct interviews with high volume seafood dealers in Carteret, Dare, New Hanover Counties to further define available for sale amounts.
- 2. Survey inland customers at grocery partner's stores to establish size of the addressable market for local seafood sales.
- Explore establishing catch groups as cooperative business structures for small and midscale
 fishing operators. A co-operative structure and cost sharing is needed in order to access these
 markets.
- 4. Analyze ways to overcome logistics and transportation challenges and optimize distribution for selling seafood through mainstream markets.

Conclusion

Selling through a grocery channel like Lowes Foods is the better of the two mainstream selling opportunities presented to Level 1 and 2 fishing operators through the NCGT project. However, operators seeking to sell in this channel will need to have strong business management knowledge and responsive customer service skills because of the high level of integration into Lowes Foods value chain required to sell to the grocer. These requirements are in addition to meeting the retailer's supply sourcing, food safety, insurance, and logistics needs.

Foodservice distribution on the scale of U.S. Foods is not a good mainstream selling channel for North Carolina's Level 1 and 2 fishing operators based on the company's needs and operator's current abilities to fulfill those needs. According to the buyer interview, there is no problem selling North Carolina harvested seafood in mainstream markets; the problem is on the purchasing side. The cost of required liability insurance to become a vendor is too much for Level 1 and 2 operators to sell to the company in addition to the supply volume requirements.

Appendix

North Carolina Seafood Survey

https://www.dropbox.com/s/tzu0lu5h8uliy9m/NC%20Seafood%20Survey.pdf

North Carolina Seafood Buyers Survey

https://www.dropbox.com/s/h98gpssn6jhzmew/Buyers%20Survey_1.15.14.pdf

Grocery Vendor Requirements

https://www.dropbox.com/s/ow8xu1qsxc8vaiu/Vendor%20Requirements_DSD_LowesFoods.pdf