THE DISCIPLINED CSF

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Executive Summary

This report is intended to serve as a guide for those wishing to organize a Community Supported Fishery (CSF). Using Bill Aulet’s (2013) Disciplined Entrepreneurship framework as a baseline, the current effort provides extends this framework to apply it to a sustainably conscious CSF. These suggestions are generated from a number of CSF interviews and within each step, where applicable, a brief case study from a real CSF is provided as an example. While the report only addresses three of the six sections in the framework- specifically those focused on finding and obtaining customers- our intention is for future project team(s) to continue this work and complete the whole framework. Lastly, we provide an analysis of marketing strategies employed by various CSFs within North America as indicators of consumer values as they pertain to the CSF sustainability framework.

Client

This report was prepared for, and in collaboration with, Environmental Defense Fund (EDF). EDF is a leading international nonprofit organization that creates transformational solutions to the most serious environmental problems. EDF’s mission is to preserve the natural systems on which all life depends by using science, economics, and innovative private-sector partnerships to provide practical and lasting solutions. The Oceans Program within EDF aims to end overfishing across the globe, return abundance to marine ecosystems, and bring prosperity to fishing communities.

Problem Statement and Approach

The ultimate goal of this effort is to minimize exploitation of near shore tropical fish by small-scale fisherman across the globe. Fishermen, especially small-scale and subsistence fishermen, require economically viable business models as their livelihoods depend on fishing. Therefore, opportunities that increase the value of seafood, especially underutilized species, may help reduce the pressure on overfished stocks while simultaneously providing economic viability for fishermen and their communities.

The current effort addresses this problem by examining Community Supported Fisheries (CSFs), an increasingly popular business model in North America that connects small-scale fishermen to consumers, to understand first how these business models are created, and second, what value they provide to consumers. Research indicates that CSFs show potential to be more sustainable (McClenachan et al., 2014); however, rather than evaluate the sustainability of CSFs, the current effort provides guidance on how to incorporate sustainability considerations into the CSF development process and marketing efforts.
What is a Community Supported Fishery?

A Community Supported Fishery (CSF) is a direct to consumer business that connects fisherman to consumers in their local community. CSFs are modeled after Community Supported Agriculture (CSA) programs, another direct to consumer model that first appeared in North America in 1950 and has grown to include over 2,500 CSAs today (Henderson, 2007; Local Harvest). CSF consumers pay a seasonal “membership” fee up front (i.e., at the beginning of the fishing season) in exchange for a weekly share of product. While CSA members receive a fixed percentage of the harvest, CSF members usually receive a fixed weight of seafood per week, either via a weekly distribution or pickup system.

Research indicates there are a number of benefits to CSFs. For example, CSFs reduce the length and increase the transparency of the seafood supply chain: average distribution distance for a CSF is 65 km compared to 8812 km for industrial supplied seafood (McClenachan et al., 2014). This reduction in transport distance also allows CSFs to market highly perishable seafood while reducing CO2 emission by two orders of magnitude (McClenachan et al., 2014). Figure 1, below, shows the average distance various quantities of seafood are transported.

![Figure 1: Distance traveled by seafood consumed in the US. (Width of line denotes quantity; only 11% of seafood consumed in the US is produced domestically)](McClenachan et al., 2014)

Further, the CSF model can also be used to encourage fishermen to use less destructive harvest methods, such as long line and trolling, to more efficiently target particular species, thereby reducing bycatch and preserving key fish stocks (Alaska Sustainable Fisheries Trust).

Beyond potential environmental benefits, CSFs benefit consumers and fishing communities. CSFs create a relationship between fishermen and seafood consumers, using a shorter, more transparent supply chain to deliver high quality seafood to consumers. Further, the up-front payments provide a dependable income to fishermen (Brinson and Roundtree, 2011).

Though CSFs are a relatively new phenomenon in North America, they show potential provide economic viability for fishermen and their communities by delivering a unique value proposition to consumers.
Methodology

The current effort first explores the process by which a CSF business is created using the Disciplined Entrepreneurship (DE) framework for creating a successful startup (Aulet, 2013). This framework provides a manageable step-by-step process for starting a company. With only 24 steps, this framework is designed such that any person with enough focus and discipline can learn and successfully apply the methodology. The current effort extends the existing framework, creating a “CSF as a Startup” guide for an organizer of a sustainability-minded CSF. With this extended framework, an organizer can build a competitive, economically viable CSF such that it has a net-positive effect on the community, marine environment, and fishing industry.

To extend the DE framework to CSFs specifically, the team reviewed academic and media sources, spoke with industry practitioners, analyzed CSF websites, and interviewed current CSF administrators. CSFs were selected based on geography, in order to compare and contrast any differences in the coasts; age, to get both mature and “live” views into the business development processes; and size, to understand a range of best practices. Specifically, CSFs were interviewed regarding how they acquired their first customers, what consumer pain points their business addresses, and best practices according to their experience. We would have liked to work with international CSFs, but due to time constraints and a general lack of international CSFs, our research was limited to the United States. Out of the 12 CSFs that we contacted, only five granted us an interview (see Appendix). Most CSFs simply did not respond to our inquiries, thought one CSF asked that we seek to answer our questions from media sources, as they were not able to spend time away from the core of their business.

Second, to provide a deeper view of how CSFs are generating customer demand and attracting paying customers, the current effort analyzes CSF marketing strategies. Nine CSF websites are analyzed to identify the value proposition they market to consumers: what language is being used to promote the CSF, does this language match what the CSFs said in interviews, and are there trends across different CSFs. The nine CSFs were selected from our original twelve, after removing three that did not have websites specifically for the CSF. Only the main website was analyzed; we did not analyze external blogs or recipe links.

CSF as a Startup

In this section, we provide an overview of the DE framework then specifically address the first three sections on the customer identification and acquisition processes. For each step, we provide an overview of the framework, extend the framework to apply to CSFs with sustainability in mind, and finally provide a case study to illustrate how existing CSFs approached the step.
Disciplined Entrepreneurship Overview

Disciplined Entrepreneurship (DE) provides a framework on how to create a successful startup through developing an innovative product. With only 24 steps, this framework is designed such that any person with enough focus and discipline can learn and apply the methodology and expect good results. Our goal was to take this one step further and modify the existing framework for an organizer of a sustainability-minded CSF. How can an organizer build their CSF such that it is net-positive in terms of its effect on the community, marine environment, fishing industry, and even the planet as a whole, yet still survive in today’s competitive landscape?

To count as a truly sustainability-oriented CSF we believe that the business has to be good for the customer, good for fishermen, and good for the marine environment as a whole. From a sustainability standpoint, a CSF is a failure when it only achieves one or two of these, as depicted in Figure 2. This is especially challenging for a CSF since it depends on a common resource shared by many, making it susceptible to the tragedy of the commons (Hardin, 1968).

![Figure 2: Sustainable CSF Innovation Trade-space](image)

This report will focus on the first three sections of DE because they are centered on understanding the customer and how to target them, an aspect that our team believed could be suitably researched within our limited time frame for the project. The first three sections include:

1. **Who is your customer?** Identify who is your target customer, what they value, and how many are willing to join a CSF?
2. **What can your CSF do for your customer?** How can you deliver value to these target customers and what is the actual product you are selling?

3. **How does your customer acquire your product?** How are you different from other players in the arena such that customers are attracted to your CSF, and how will you get them to buy your product?

![Figure 3: The first three sections of the DE Framework](image)

**Section 1 - Who is your customer?**

This section includes six different steps all centered on identifying the customer, including what they want and how to target them. Steps include: segmenting the market, selecting a beachhead market, creating an end user profile, calculating the total addressable market, creating a persona for your beachhead market, and then identifying your next ten customers.

**Market Segmentation (Step 1)**

**Step Overview**

The objective of market segmentation is to figure out all the possible markets in which a CSF is applicable.

**Extension to CSFs and Sustainability**

The first activity is to brainstorm as many market opportunities as possible. Nothing should be considered far-fetched or crazy, simply put potential opportunities on the table. After brainstorming as many different markets as you
can think of narrow the candidates down to about six of whom you will collect market research on. When narrowing the list, consider these questions:

- Is the target customer or CSF member sufficiently funded that they can afford an annual or seasonal membership?
- Is the target customer readily accessible and local for quick distribution of fish?
- Does the target customer have a compelling reason to buy?
- Could you today, with the help of partners, deliver a freshly caught fish to your members?
- Are there other local seafood providers who would present competition or even could block you?
- If you win this segment, can you leverage it to enter additional segments but not jeopardize your sustainable values, such as exploiting the fish stocks?
- Is the market consistent with the values, passions, and goals of the founding team? Does the market care that you are attempting to promote a sustainable fishery?

Example market opportunities for a CSF could include local families, restaurants, universities and schools, caterers, fertilizer manufacturers, bait shops, cooking classes, etc. To ensure that the CSF is indeed providing a sustainable method of fish harvest and distribution, also ask questions concerning the sustainability of the CSF in these markets. Some potential questions include:

- How will the CSF ensure it is protecting the natural environment? (e.g., catch limits, adherence to regulation, types of species harvested, fishing methods)
- Does the CSF create a healthier, safer living environment for people?
- Will being a member in the CSF allow the member to send a visible message to others about their own values? Do members care about this?
- Can a CSF reduce risks for customers, such as from food poisoning?
- Do sustainability-oriented practices regarding people and fisheries make your CSF a less risky business?
- Are there any other ways that sustainability sets your CSF apart from the competition?
- Are there any other incentives for customers to join the CSF aside from access to fresh fish, such as community networking or education?
- If you are going to market your CSF as “local”, to what extent does this constrain the available market?

CSFs are in a unique position, as they exist in a two-sided market: members/customers must exist to buy the fish, and fishermen must exist and be willing and able to sell the quality and quantity of fish to the CSF. Although this paper will focus on the steps of obtaining paying customers and members, this same framework can be mimicked for the process of acquiring fishermen into the CSF as well.
Case Study

CSF’s have approached this step by conducting boots on the ground research: talking directly to customers at local restaurants, grocery stores, or wherever else their target market exists and asking what do these people value? Dock to Dish and Real Good Fish did this by interviewing people outside grocery stores and restaurants. Real Good Fish found that out of the more than hundred people they interviewed 50% were interested in the CSF model and the sustainable practices they preached.

Beachhead Market (Step 2)

Step Overview

After doing market research on the different markets that a CSF would work well in, choose a single market to focus on and do more in-depth research. Being narrowly focused is a good thing as it concentrates your efforts. The first market you enter will be a steep learning curve, so one would be better off learning in a smaller market before entering bigger territory.

Extension to CSFs and Sustainability

Now would be a good step to consider the word of mouth feedback loop, see Figure 4. The generic model is that potential adopters try the CSF, like the fresh seafood they have for dinner and tell their friends increasing the adoption rate and attracting ever more customers. CSFs often rely heavily on word of mouth for advertising due to their limited budgets, yet this cycle is not always virtuous, it can also be a negative feedback as well. For example, if a CSF customer has a bad experience, the CSF might lose that customer as well as all their friends who they told.

![Figure 4 - Word of Mouth Feedback](image)

When considering what markets to focus on in the United States, families or a small businesses would be a good market for a CSF to test the waters before looking to branch out into larger restaurants and catering groups which may strain their resources.
Case Study

Community Supported Agriculture (CSA) groups have been around since as far back as the 1920s. After many years of trial and errors through the world, there are now numerous studies and market research on the model. When considering markets, our research shows that CSA members are also strong candidates for a CSF. Many CSFs in the U.S. are therefore creating partnerships with CSAs, enabling customers to pick up both produce and seafood in the same location.

Local I’a is just getting started as a CSF and are addressing this very question. Initially, they claim they will have only 50 members that will serve as their “founding members”. They will run this way for two to three months and then ask their founding members what is working and what isn’t: pick-up locations, timing, quality, etc. They will also have to assess what their fishermen are bringing back to the dock each week and how consistent basis their catch volumes are. If the fishermen are bringing in consistently more than customer demand, then they will consider adding additional customers. This methodology allows controlled incremental growth so that quality can be controlled best.

End User Profile (Step 3)
Step Overview

With a beachhead market identified, it is time to learn about the target member of the CSF as a general composite person. It should be stressed that these questions are not answered in books or on the Internet, but in continuous interaction with customers and members.

Extension to CSFs and Sustainability

Additional questions to consider as this step applies to a CSF would include:

- What kinds of seafood, and how frequently, do they buy?
- Do they know what a CSF is? Do they see membership in a CSF as trendy?
- Do they fear food poisoning from bad seafood or purchasing fish that is not even really the species that the seller claims?
- Why would they be buying freshly caught fish?

As the CSF grows, this step should be repeated periodically to ensure that the CSF is in tune with the customer. Research on existing CSFs in North America is discussed further in the CSF Value Proposition Analysis later in this paper.

Case Study

When Real Good Fish was starting their CSF, they researched how often people were eating seafood and found that about 60% of the time it was in a restaurant or café and the remaining 40% was at home. Now, several years later and growing, Real Good Fish reports that they perform annual surveys of their customers to follow trends and ensure they are creating the value that their customers care about.
**Beachhead Total Addressable Market Size (Step 4)**

**Step Overview**

This step is where you put a value, monetary or otherwise, on the market you are considering. Calculate how many end users fit your profile and then determine how much value each user is worth per year. These two values multiplied together yields the total addressable market (TAM).

**Extension to CSFs and Sustainability**

There is not an ideal size for a CSF’s TAM, but Aulet recommends finding a market where your CSF can gain a good share of it, but do not enter one so large such that your CSF is immediately resource constrained. When calculating the number of end users, keep in mind that customers will nearly always overstate their willingness to pay for a product that is more sustainable or “green”*. Moreover, a customer’s willingness to pay for a product or service is very different from a customer actually paying for the same product or service. Moreover, seafood consumption in the US in 2012 was estimated at approximately 15 lb per capita (NOAA, 2012), this could serve as upper bounds on the TAM. When considering the lifetime value of a customer, do not only consider the monetary value of selling them fresh seafood, other factors to consider include:

- Lower energy costs to harvest the seafood from the ocean; it is estimated that the energy required for industrial fishing takes an estimated 42 MJ/kg of fish, not including the energy to freeze or transport the fish (Smil, 2009)
- High quality seafood leading to a healthier diet
- Your CSF may add to “sustainable supply chain” branding

Additionally, the CSF may also lead to the creation of public goods that can add a major source of external revenue for a CSF, such as:

- Potential for reduced CO₂, NO₂, and SO₂ emissions if fishing fleet is making shorter voyages reduced land transportation costs
- Increased knowledge in the community through education in marine stewardship
- New capital creation may be developed to handle fish processing or distribution

**Case Study**

The goal for Dock to Dish is to create value for the local people of the community, the planet, and then the business: the triple bottom line. They did their market research in a bottom-up method by literally driving around town and asking people how they bought their fish. They coupled this with a top-down analysis by partnering with a local CSA whose customers epitomized the same values that Dock to Dish was seeking in their ideal customer. Indeed, during the beginning for Dock to Dish over 90% of their customers were CSA members. For Real Good Fish, this value was closer to approximately 20%.
When considering a ballpark reference value for a TAM, one of the CSFs we spoke with advertises a price of $22 per fish delivery and has approximately 1000 unique members. Assuming that every customer did their weekly pick-up for a year round fishing season this would indicate a TAM of roughly $1.2 million. Obviously this is a very high level estimate and is subject to a number of factors including fishing season length, number of customers, and price of membership to name a few.

**Persona (Step 5)**

**Step Overview**

In contrast to step three where a generalized target customer was created, now define in detail a *real* person who best represents the primary customer of the beachhead market. This focuses the team onto just one tangible person so that everyone is able to work towards the same goal of satisfying that customer. Realistically no one person will be a perfect match to the end user profile generated previously, but a close match is definitely possible. As one progresses through the steps and makes decisions, always come back to the persona and ask how they would respond.

**Extension to CSFs and Sustainability**

While working through this step, it would be worthwhile to ask if the persona created is one that the CSF *wants* to sell to. In the CSFs we talked to, none stated that they performed this step. As a disciplined CSF organizer, we recommend developing a single persona to help keep your team focused; this is especially helpful when considering sustainability issues or other difficult decisions; as an example: how would your persona feel about your fishermen using heavy fuel oil in their boats instead of biofuel? Some companies have gone so far as to create life-size cutouts of their persona; Amazon.com founder Jeff Bezos was famous for always leaving an empty seat for the customer at management meetings. As mentioned earlier the creation of a persona should be done for the customer buying the fish as well as for the fishermen that sells to the CSF.

**Case Study**

Though none CSFs we talked to explicitly perform this step, we were provided with interview data from a CSF that conducts regular surveys of their members and asks members who are leaving the CSF to complete an exit questionnaire. This type of information can be extremely valuable in understanding the buyer persona. One method for representing a persona is an empathy map. Figure 5 shown below provides an example empathy map created based on customer surveys from a CSF who wishes to remain anonymous.
The Next 10 customers (Step 9)

Step Overview
Create a list of the next ten customers, in addition to the persona, who also closely match the end user profile to validate the persona you have chosen. This step serves as a checkpoint to reflect on the progress to date and to make sure you are pursuing the right size market and that you have identified your end user and persona correctly. Talk to at least ten other customers from your beachhead market and describe your CSF to them and solicit feedback and criticism. Are they willing to become members, why or why not?

Extension to CSFs and Sustainability
Because the persona may place a different value on a sustainable CSF from others in your beachhead market, you need to see how they compare to others and reduce the potential for sampling error. You can hedge against incorrectly sizing your market or misjudging customer willingness to pay by talking with more potential customers who meet your end user profile. Moreover, these ten potential customers can also serve as the beginning of your customer base and help increase advertising through word of mouth.

Case Study
A CSF wishes to sell whole fish to individual families. The fish is locally caught using sustainable fishing tactics such as hook and line and spearfishing. Because of this, the CSF believes they are able to charge their customers a premium. After developing a persona for a customer within their beachhead market, they conduct interviews with other customers to generate feedback on their plan. While the customers love that the fish is sustainably caught and locally
sourced, the families do not like that the fish is delivered whole and unprocessed, they would rather have fillets. Realizing their oversight the CSF organizers reconsider their customer and market research and revisit their previous steps once more.

**Section 2 - What can you do for your customer?**

This section determines the value proposition of your product to the customer you are targeting. It helps you to understand where your product fits into the value chain of the customer, determine the specific benefits your product creates in a customer’s life cycle, and quantifies those benefits into real value your customer can utilize. After reading this section you should also be able to hedge yourself against your competitors and identify your unique value proposition.

**Full Life-Cycle Use Case (Step 6)**

**Step Overview**

In this step, use the life-cycle analysis to understand the value chain of your customer and how your product fits into it. Describe in detail how your Persona finds out about your product, acquires it, uses it, gets value from it, and buys more and/or tells others about it.

**Extension to CSFs and Sustainability**

After determining Persona and Target Market, seek out this Persona. It is key to understand this value chain from the customer’s perspective, not your own. Do this by talking to as many customers as you can. Past CSFs have often targeted their potential customers at the traditional supermarket, trying to understand their value chain by surveying them at the place of purchase. A key result from this value chain mapping exercise is understanding of where key customer needs are unmet and how you can meet those needs in a way that makes it easier for the customers to get what they need. Some key questions to ask are:

- How will your end user determine that they have a need/opportunity to buy sustainable seafood?
- How will they find out about your CSF?
- How will they fit your CSF service into their schedule?
- How will they use your seafood? Do they know how to cook the species which you will provide them? Have they been exposed to these species prior?
- What do they value most about their seafood and how will they determine the value they gained from your seafood?
  - If eating healthy and local is important to them, will they be able to see a direct impact on their life via improved economy in the community, feeling healthier, etc?
- How will they pay for your product? Does this differ from how they currently acquire store-bought seafood?
- How will they receive support for your seafood post sale? Will you provide with instructions on filleting, or recipes for new species? If they will skip a delivery, what options will you have to recover their payment?
• How will they buy more seafood?
• How can they spread awareness about your CSF? Do you have a strong social media presence? Do you rely on word of mouth?

Case Study
Walking Fish, a CSF based out of North Carolina, realized the customer’s need for support in the post-sale market. Most consumers do not know how to cook undervalued species. Walking Fish provides support post acquisition by hosting different events with a seafood theme to which they invite not only their members, but also the entire local community. Past events have included “Starting a CSF in Virginia,” Seafood Summit, cooking demonstrations, and many others. These external events not only provide further support to their members, but also educate the community at large about sustainable fishing, and gather attention from potential members.

High Level Product Specification (Step 7)
Step Overview
Now you must focus on the benefits that the features of your product create.

Extension to CSFs and Sustainability
At this stage, specify particular details regarding your product and service. For example, what type of fish are around your area and when each fish species can be caught (different fish for different seasons), what type of fishing technique you will encourage your fishermen to use, etc. Create a visual through which you can communicate to your customers the main features and benefits of your CSF. This can include a website or a brochure you will share with potential end users. Remember, your product is fresh and local seafood but your main benefits can also come from your delivery method, your after-sale support system, and anything else which you have identified the customer needs but is not getting from their current seafood supplier. Think about what is important for your customers to understand about your service/product and how you can do it best visually. Some topics you can include in your visual representation are:

• How do you connect with fishermen and which ones do you hire? Are the fishermen local?
• What fishing methods do you employ your fishermen to use?
• How do you pick up the seafood and how often?
• How and where do you process the seafood?
• How do you deliver the seafood?
• What do you do with leftover seafood?

Case Study
Local I’a, a CSF in Hawaii, identified that traceability is a very important value for their customers – the end user wants to know from where the fish is coming, how long it took to get to their plate, and if the fish is really fresh and local. Local I’a is addressing this concern by allowing customers to trace their fish by using a software tool called “This Fish.” The software is internet based, free, and easy to use.
It is also an easy way for Local I’a to help customers visual the “fresh and local fish” product. Figure 6, below, demonstrates how the software works.

**Figure 6: “How it works” This Fish software tool for tracing fish from the source (Klassen, 2011)**

Case Study
Dock to Dish visually compared their supply chain versus a traditional seafood supply chain (see Figure 3). They broke down all the steps and compared the benefits their supply chain has over wholesale supply chain. It is specific, easy to understand, and highlights all the benefits to the consumer, such as traceability and better priced fish.
Figure 7: Dock to Dish Supply Chain

CURRENT SUPPLY CHAIN

- Wasteful (spoiled product, discarded low value fish)
- Lots of steps between boat and plate
- Multiple processing steps: fish is frozen in the U.S., shipped to China for processing, refrozen, then returned stateside
- Opaque
- Fragmented and fractured
- Commodity fish
- Poor prices and no incentive to fish responsibly

IDEAL SUPPLY CHAIN

- Efficient/utilizes everything
- Shorter links
- Process locally
- Transparent
- Traceable
- Storied fish
- Better prices for responsible fishers
Quantify Value Proposition (Step 8)
Step Overview
In this step, you determine how the benefits of your product turn into value for your customer. If possible, quantify this value.

Extension to CSFs and Sustainability
At this stage you have already identified top priorities and the full cycle for the customer. Now is the time to connect benefits to priorities and quantify them. A simple method would be to quantify the benefits of your product and compare them to the quantified benefits (or lack thereof) of the current state. For example, if eating local is a huge priority for consumers, draw a value chain of obtaining the fish in the current process and in your process, pointing out the key benefits such as reduced miles traveled, reduce CO2 emissions, increased freshness (time since catch). Quantifying the benefits will also help you to solidify your benefits and your process. Do not set unrealistic values if they will be difficult to achieve (for example, distance traveled is easier to measure and keep true versus potential money savings because the latter strongly depends on consumer habits and is difficult to measure or predict).

Case Study
If your customer’s top priority is to reduce CO2 emissions by purchasing local foods, determine how buying your seafood will reduce CO2 impact when compared to seafood bought at the grocery store (shipped from abroad). Dock to Dish identified this as one of the top priorities for their customers and calculated that a fish bought at a local grocery store traveled more than 5,000 miles whereas their fish traveled only 34.2 miles.

Define Your Core (Step 10)
Step Overview
In this step, you explain why your business can provide customers with a solution that other businesses cannot.

Extension to CSFs and Sustainability
The Core is the “secret sauce” which makes your CSF unlike your competition. It should be a single thing that will be difficult for a competitor to copy. This is very situation specific based on the location, population interest in seafood, and current competitors. Your main competition could be non-sustainable fishing supply chains which haul food from thousands of miles away, or you may decide that any company which sells seafood, including other CSFs, are competitors. If it is the former, you might want to think about how other CSFs play into your core – can you leverage them to extend your core? For example if your core is sustainable fishing (ensuring no rare species are overfished), could a core be a forum between all local CSFs to share fishing ground and plan type of species caught? Again, this is very dependent on the local seafood market and existing competitors. Beware that being first in the market or having supplier monopoly is not considered a core, as these are barriers that can be easily broken through with time.
Case Study

Dock to Dish identified that despite being based out of a harbor town, there were no offerings of fresh seafood. Their core was the freshest fish in the area, “ranked #1 in freshness compared to any traditional market sources that fall under the jurisdiction of Department of Health, USDA or FDA.”

Chart Your Competitive Position (Step 11)

Step Overview
In this step, you must show how well your product meets the customers’ top two priorities and how that stacks up against existing products in the market. You must also analyze whether the market opportunity you have chosen fits well with both your Core and your customers’ priorities.

Extension to CSFs and Sustainability
Create a visual “Competitive Positioning Chart” that will help you to determine how you stack up against the existing competition. The purpose of a graphic like this is to simply and visually demonstrate that through utilizing your Core, you are able to meet customers’ top priorities better than existing companies. As an example, see Figure 8, below.

Section 3 - How does your customer acquire your product?
This section walks through the steps of determining the decision-making unit (DMU), mapping the process to acquire a paying customer, and specifically mapping the sales process. After this section you should be able to determine who influences your end user and who can veto their buying decision. You will also determine the timing sequence of your process, how your customer acquires and pays for your product.
Determine DMU (Step 12)

Step Overview
Who are all the people involved in making the decision on whether to join your CSF or buy your fish? These people make up the DMU. There are three main roles in a DMU, identify each for your persona and the Next 10 Customers. If you have mapped out your market and persona correctly, then a pattern should begin to emerge and the people filling in these roles should be very similar, if not this may be an indication to reconsider your market segmentation or persona. The three main roles are Champion, End User, and Primary Economic Buyer.

Extension to CSFs and Sustainability
These roles can best be mapped to a CSF as follows:

- **Champion** - The person who wants the customer to purchase the product. For a family, this may be other members of the family who do not plan out the meals or buy the food. In a restaurant this might be a chef that wants to work with fresher seafood that is never frozen.
- **End User** - This is the person that will actually eat the seafood, be it the patrons in a restaurant or the kids at the dining room table.
- **Primary Economic Buyer** - This person actually authorizes the spending of money on seafood. In the case of the family, it could very well be the same person as the champion of the end user. In a restaurant setting, the person would be the restaurant owner or the Executive Chef.

Case Study
Dock to Dish has both local restaurants and families as members in their CSF. Restaurant members typically receive about 50-75 lbs of whole fish per week whereas an individual customer receives about 2 lbs of fish fillets per week. When delivering fish to the restaurant, the CSF first dealt with the Executive Chef or the Owner of the restaurant to approve the quality and sale of the fish. After a few months however the CSF began dealing exclusively with the fish butcher at the restaurant, also known affectionately as the “gate keeper”.

Map the Process to Acquire a Paying Customer (Step 13)

Step Overview
In this step, you map out the process by which a customer decides to purchase your product. This includes estimating the sales cycle for your product, and identifying any budgetary, regulatory, or compliance hurdles that would slow down your ability to sell your product.

Extension to CSFs and Sustainability
Earlier on you have identified your target market, for example a local restaurant. In this case, it is essential to understand who in the organization has the decision power to buy seafood– is it the chef, restaurant owner, restaurant manager, or someone else? Furthermore, you must understand if there are regulatory issues
with seafood delivery – does the restaurant need extra compliance orders to process the fish onsite? Should you sell them a fillet or a whole fish? While these issues may have nothing to do with your CSF or fishing, they do represent a hurdle that can prevent the customer from acquiring your product. Utilize the information from Step 6 (Full Cycle Analysis) to help you determine the process toward acquiring a paying customer. Some additional questions to consider are:

- Who are the key players from the DMU that will be involved in the purchasing of your seafood? What is their influence on the process?
- What is their budget authority (amount and type)? If it’s a restaurant, is there a limit on the amount spent, the amount of fish purchased, both, or neither?
- How long will it take to complete each component you identify? List them in temporal sequence noting any that can run in parallel. For example, searching for the type of seafood needed, making the purchase, etc.

It is important to be diligent: DE recommends at least 80 percent certainty in each step.

Case Study

New Hampshire Community Seafood CSF wanted to increase the number of subscribers they had. They experimented with adding more locations and determining which ones were more convenient for their customers. Following the addition of more convenient locations, they were able to almost double their membership over a period of a season. They also discovered that staffing all locations was not necessary, a key understanding in terms of whether having staff members creates a benefit in acquiring a customer or not. This experiment with adding locations and reducing staff members helped to acquire more customers and reduce costs associated with staffing.

Map Sales Process (Step 18)

Step Overview

In this step, you develop short-term, medium-term, and long-term goals for your product.

Extension to CSFs and Sustainability

Below are some guidelines for short vs. long-term sales and marketing strategies:

- **Short term** – acquiring and delighting customers
  - Customer feedback through surveys and face-to-face conversations
  - Encourage word of mouth feedback through social media marketing tools and in-person events
  - Do not discount negative feedback as it is key to improving your process
- **Medium term** - focus shifts more from demand creation toward order fulfillment as word of mouth and distribution channels take on some of the demand creation burden. Now that you have a steady customer base, evaluate how you can improve your delivery processes.
Do you need more delivery and pick up sites?
Do you need to expand your staffing base either by hiring more people or by partnering with another CSF or sustainability group?
If you do not already have a processing factory, do you need one to fulfill all the orders being generated for existing and new customers?

• Long term - Your sales group focuses on fulfilling customer orders. You may decide that you need to cap the number of members your CSF has based on sustainability issues (fish stock availability). In that case, your business will do very little demand creation, and will continue client management where appropriate. Think about how you will service your members in the long term:
  - Should you create a recipes section that they can reference when cooking their seafood?
  - Do you need to host events for your members to connect them even more with sustainable fishing?
  - Do you need to produce a report for members that will demonstrate your sustainability position over the years to achieve full transparency with your members?

Case Study
Dock to Dish employed a short-term strategy of partnering with CSAs to gather momentum for their fish. They hypothesized that people who value local and sustainable agricultural produce will equally value those same metrics in their seafood. Their initial customer base included 90% CSA customers. With time, they had more diversified customers and their CSA customer affiliation has dropped to 80%. This changed their sales strategy from selling exclusively to CSAs to selling to local restaurants. At this time, they have 130 families and 12 restaurants in their customer base. They are now focused less on obtaining new customers and more on how to maintain their fulfillment, looking at potential partners that will help them maintain sustainability focus and running an economically viable CSF.

CSF Marketing Strategy Analysis
This section provides an analysis of the marketing language used by CSFs on their websites.

Website Analysis
A successful CSF, like any business, needs to be economically viable. Economic viability requires paying customers. But seafood already exists at grocery stores and supermarkets, so why would a customer choose to purchase from a CSF? To determine the value proposition, we analyze the marketing efforts of nine North American CSFs. Specifically, we analyzed the language on their websites and categorized individual words and phrases into the following categories: traceability, quality, sustainability, local, variety, and price. Only the main CSF website was
included (i.e., blogs, recipes, information on fishermen and fish types, links to certifying agencies, etc. were not included). The graph below shows the results.

![Graph showing the value proposition of a CSF](image)

**What is the Value Proposition of a CSF?**

**# of Independent Mentions on Website**

**Marketed Attributes**

---

**Trends in CSF Marketing**

A number of trends emerged from this analysis. First, sustainability is the most commonly marketed attribute across all nine CSFs. Though the word “sustainability” was used frequently, many CSFs went further, explicitly communicating how their business is sustainable. For example, the Big City Fish Share website explains how they work with the Monterey Bay Aquarium and the Blue Ocean Institute to rate their products and harvest methods. Across a majority of CSFs environmental sustainability is emphasized; a smaller subset of CSFs like Walking Fish, Dock to Dish, and Off The Hook explain their status as a “triple bottom line” business, extending the sustainability framework to social sustainability (e.g., by providing fair wages to fishermen).

Second, all CSFs emphasize both the transparency of their supply chain and that their product is “local”. To emphasize transparency, the websites include language around getting to know your fishermen and “traceability”. For example, catchy phrases such as “boat to fork” (Walking Fish) and “dock to dish” (Dock to Dish) are frequently used. The concept of “local”, however, is less defined and seemingly often used as a buzzword. None of the CSFs define a radius that constitutes local vs. non-local, or clearly explain what “local” means to them. The lack of clear definitions of “local” is consistent with the literature (Durham, 2009).

Third, only one CSF discusses, and justifies, how their price is higher than other options for seafood procurement. Further, the only other CSF website that mentions price (other than provided prices, e.g., on the “order” page) implies that
they are NOT more expensive ("competitive pricing") than other venues. All of the CSF websites list their prices, but further research is necessary to determine how the CSF prices compare to other options.

Though research indicates that successful marketing strategies include both rational and emotional components (Keller, 2001), consumer perceptions of, and willingness to pay for, the value proposition of CSFs is not well understood. Research indicates that CSF members are more interested in premium seafood and supporting their local fishing community than environmental sustainability (Campbell, 2014). This is inconsistent with the marketing strategies of the CSFs we analyzed. However, research also indicates that providing information on quality, social impact, and geography can increase consumer willingness to pay a price premium for food products (Anselmsson and Johansson, 2014). Marketing language such as “support fishing communities” and “local” may therefore be effective. One reason for these discrepancies may be the inconsistent, ambiguous, or absent definition of “sustainable” (Roheim, 2009); the CSFs analyzed in the current effort similarly did not define this term.

Finally, all the CSFs use additional marketing strategies beyond the language on their website. These additional value-add products and services include biographies on fishermen servicing the CSF, recipes and preparation instructions for different types of fish, education about fish species and harvest methods, detailed information about certification agencies and sustainability standards, community building activities such as BBQs with the fishermen, and information about partnerships (e.g., with local business, farms, and education providers). The current effort did not compare CSF pricing to other seafood vendors; however, research indicates that CSFs do charge a price premium (Brinson and Roundtree, 2011). It is therefore likely that the purpose of these additional services is to add additional value, compensating for the relatively more expensive product and augmenting the other benefits (e.g., community pickup days to increase supply chain transparency and connect fishermen to consumers). As 100% of the CSFs analyzed offer some type of additional value-add, it can be inferred that this type of marketing effort is expected.

**Tool Recommendations**

CSFs use a number of software tools to implement their marketing strategies. The table below provides an overview of the tools used or recommended by the CSFs we analyzed. This list is not meant to be comprehensive; instead, it should be taken as recommendation and used in combination with the extended DE framework and results of the marketing analysis to help developing CSFs realize effective marketing strategies.

<table>
<thead>
<tr>
<th>Type of Tool</th>
<th>Purpose</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Website Host/Content Manager</td>
<td>• Create a website</td>
<td>Wordpress, Squarespace, GoDaddy, Bigcommerce</td>
</tr>
<tr>
<td></td>
<td>• Host a website</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Share content</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Engage existing</td>
<td></td>
</tr>
</tbody>
</table>
and potential customers

<table>
<thead>
<tr>
<th>Operations software</th>
<th>Social Media</th>
<th>Social Media and Marketing Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Order taking</td>
<td>• Spread content (e.g., photos)</td>
<td>• Monitor social media and marketing campaign success</td>
</tr>
<tr>
<td>• Finance</td>
<td>• Interact with current and potential customers</td>
<td>• Track leads through sales funnel</td>
</tr>
<tr>
<td>• Delivery</td>
<td>• Lead generation</td>
<td>• Create surveys to monitor customer happiness/Net Promoter Score</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Customer engagement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Farmigo, Small Farm Central, Cabbige, Quickbooks,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Facebook, Twitter, LinkedIn, Instagram</td>
</tr>
</tbody>
</table>

Table 1: Software Tools Used by CSFs

Summary and Next Steps

CSF as a Startup

Our research indicates that the DE framework can be meaningfully applied to, and extended by, Community Supported Fishery business models. While none of the CSFs we contacted explicitly followed the entire DE framework, many did consider certain aspects. We therefore believe that the framework provided in this paper will help future CSF organizers effectively approach the challenge of creating a sustainability-oriented CSF and avoid some common pitfalls.

Analysis of the marketing practices utilized by CSFs via their websites indicates that sustainability is a key element of their strategy. It is also important to tie this marketing approach to the customer value proposition such that the websites are marketing the correct values to their customers and not simply “green-washing”. Our research indicates that many customers place value on “traceability”, “local”, and “quality” in addition to sustainability.

During the course of this project, we also noticed several behaviors that were common to all the CSFs we spoke with and which we believe are worth mentioning.
First, CSFs are built upon trust and credibility. Each CSF stressed that they live and die by their customer’s trust in terms of “doing what’s right” and consistently providing high quality seafood. Second, constant communication with customers is critical so that CSFs can use member feedback to ensure they are meeting customer needs. Whether through annual surveys or face-to-face interactions during pick-up times, this feedback allows the CSF to successfully develop through trial and error. Third, word of mouth is a CSF’s best marketing strategy. Every CSF we spoke with relied heavily on this form of advertising, so it is crucial to select a beachhead market that enables a virtuous word of mouth feedback loop.

Though the current effort extends the DE framework to consider sustainability, we did not explicitly address how CSFs should approach one of the more difficult sustainability-related problems: growth. In the interest of keeping the business alive and healthy, moderate growth is necessary; however, growth must be managed in such a way as to prevent undue stress on fish stocks and over expansion of the delivery network. Our research indicates that CSFs, if implemented as economically viable and sustainability oriented businesses with voluntary limits to growth, have potential to improve stewardship of the fisheries and marine resources while improving the livelihood and interconnectedness of the local community in comparison to industrial fishing methods. All of the CSFs we spoke with harvest fish using methods that help sustain marine resources. For example, many CSFs use rod and reel and spearfishing to target certain species, thereby drastically reducing by-catch.

Since customers pay in advance before the fishing season starts, they enable the CSF, and the small-scale fishermen it supports, to employ sustainable fishing methods. In this way, the CSF is capable of providing customers fish that may be more abundant (i.e., non-threatened stocks) or fish that are under-utilized. Consumers also benefit from this relationship, as they are exposed to species and cooking methodologies they many not have otherwise tried. The CSF model takes explicit and implicit responsibility for environmental stewardship: in addition to educating consumers about sustainability, they must manage their customer demand and upstream fishing practices to ensure overfishing does not occur. Many CSFs are therefore working in conjunction with catch-share programs (Brinson, Lee, Rountree 2011) or partnering with environmental certification agencies (e.g., MSC) to both hold themselves accountable, and leverage existing content to educate their members.

**Next Steps for Further Research:**

There are a lot of CSFs currently in North America, and their numbers seem to be increasing. Gathering data from additional CSFs would add value to framework and case studies developed in the current effort. The approach taken in this paper can be extended to the other three sections of the DE framework as well, completing the adaptation of the DE framework for sustainability oriented CSFs.

Similarly, the marketing research was limited to nine CSFs, so this could be expanded to additional websites. Further, the data could be broken down into geographical regions to identify trends (e.g., distance from coastal community;
commonly fished species). Additionally, comparing marketing data to surveys of CSF members would enable one to identify gaps with current marketing approaches.

Getting hard data on the price of the CSF products compared to those of local supermarkets is another area for further investigation. Though this type of information may be difficult (e.g., due to a possible disparity between species offered), quantitative data on how much more (or less) CSFs are able to charge would be useful in understanding the value-proposition of CSFs and effectiveness of their marketing strategies. Delivery and convenience quantifiers should also be investigated, as many CSFs deliver directly to their members’ doorstep. Identifying and reaching out to international CSFs would also be very interesting, as it could make the analysis more comprehensive and therefore widely applicable. For example, extending the DE framework to include case studies from international CSFs could help strengthen the case for creating a CSF in the developing world. The marketing research from international CSFs would also be very interesting, as it would allow one to compare strategies across more broad cultural boundaries and income levels.

Since most of the research completed in the current effort is on marketing targeted towards consumers in areas of affluence, it would be useful to identify a developing country in which this framework can be applied. By overlaying this framework and generating a business plan for a developing country, the analysis would be tested and existing gaps would be identified. One approach to conduct this research, suggested to us by a number of CSFs in North America, is to survey the local population by sitting outside grocery stores. Further analysis would need to be done, specifically with fishermen and processors in the same community.

**Implications for the Developing World**

The initial goal of this effort was to understand if, and how, the CSF model can apply to fisheries in the developing world. As our analysis of CSFs in North America progressed, the applicability of this model became more and more uncertain. During our interviews we explicitly posed this question to CSF representatives and for the most part, the response was one of skepticism. However, the consensus of our team is that there are some aspects of the CSF model that can be applied to the developing world.

The one glaring difference between the locations where we researched CSFs and the developing world is the affluence of the customer base. In North America we are seeing individuals with disposable income who have the choice to utilize it in support of a local product that is sustainably sourced. In the developing world, the customer base with disposable income to support a CSF is likely smaller and may not be numerous enough to justify a CSF. It is also unclear whether the values that make a CSF unique (e.g. local, fresh, traceable) are key factors that drive decisions when sourcing seafood in the developing world.

However, there are some aspects of a CSF structure that would work in the developing world. For example, the CSF model is based on local sourcing of seafood such that vertical integration and shorter supply chains enable businesses to give fishermen a price premium (Brinson and Roundtree, 2011). In the developing world, a shorter supply chain and reduced transportation costs could mean that the
customer gets a less expensive and better product. It may also be possible to eliminate some of the non-essential value-added features to reduce costs for consumers while ensuring economic viability for fishermen. For example, with very short, local supply chains, it may be possible to eliminate the freezing step, which requires significant energy and financial resources. It might also be possible to reduce marketing costs such as website hosting or magazine adverts and rely entirely on word of mouth.

Maintaining economic support for fishermen is a critical aspect to the longevity of a CSF, and we believe this is even more important in the developing world. In North America, CSFs help fishermen obtain a price premium on their catch if they maintain traceability and fish in a sustainable way. While these values may not have the same weight to consumers in developing regions that they do in the United States, we think traceability may prove much easier in the developing world where large processing plants that make traceability difficult and costly are not as prevalent. Assuming fish can be processed without these plants (as Local I’a does) at scale, the cost structure should allow a reasonably priced product for CSF members.

Finally, the growing trend of Ecotourism could be used to support a CSF in the developing world. Affluent individuals are often the target market for this type of travel and would likely value the same high quality, local, sustainable products that have made CSFs popular in North America. The CSF product could be sold to restaurants and hotels in the area, and marketed using similar methods to those identified in our research.

**Acknowledgments**

We would like to thank the organizers and representatives of the CSFs that took the time to speak with us, namely: Walking Fish, Real Good Fish, The Local Catch, Dock to Dish, Local I’a, and Alaskans Own. We would also like to thank the team at EDF Oceans group for their feedback and support during this project as well as the mentorship and guidance from our professors at MIT in the Strategies for Sustainable Business Lab.
Appendix

<table>
<thead>
<tr>
<th>CSF</th>
<th>Location</th>
<th>Interviewed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking Fish</td>
<td>Beaufort, NC</td>
<td>Yes</td>
</tr>
<tr>
<td>Real Good Fish</td>
<td>Monterrey, CA</td>
<td>Yes</td>
</tr>
<tr>
<td>The Local Catch</td>
<td>Narrangasett, RI</td>
<td>Yes</td>
</tr>
<tr>
<td>Alaskans Own</td>
<td>Alaska</td>
<td>Yes</td>
</tr>
<tr>
<td>SLO Fresh Catch</td>
<td>San Luis Obispo, CA</td>
<td>No</td>
</tr>
<tr>
<td>Big City Fish Share</td>
<td>NYC, NY</td>
<td>No</td>
</tr>
<tr>
<td>Off the Hook</td>
<td>Halifax, Nova Scotia</td>
<td>No</td>
</tr>
<tr>
<td>Dock to Dish</td>
<td>Montauk, NY</td>
<td>Yes</td>
</tr>
<tr>
<td>Crescent City Supported Fisheries</td>
<td>New Orleans, LA</td>
<td>No</td>
</tr>
<tr>
<td>SkipperOtto</td>
<td>Vancouver, Canada</td>
<td>No</td>
</tr>
<tr>
<td>Cape Ann Fresh Catch</td>
<td>Gloucester, MA</td>
<td>No</td>
</tr>
<tr>
<td>Local I’a</td>
<td>Hawaii</td>
<td>Yes</td>
</tr>
</tbody>
</table>

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