

**Understanding the Challenges and Opportunities of Selling Maple Syrup Abroad:
A Qualitative Case Study of U.S. Maple Syrup Export**

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Abstract

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This qualitative case study examines the export experiences of ten small- to medium-sized US maple syrup producers to understand the strengths and bottlenecks of selling maple syrup abroad. Semi-structured interviews are used to explore topics of producer's export demographics, export dynamics, challenges, opportunities, and if there are economic incentives for US producers to develop export markets. The author considers how these topics are relevant to the US maple syrup industry, the internationalization process for US producers, and the global trade of maple syrup. Six categorical findings were generated from qualitative themes in this case study of exporting U.S. maple syrup SMEs. The first set of three findings refers to challenges

experienced by the case subjects: competition with Canadian and other U.S. producers' exports; market factors which consisted of trade agreements, economic impacts of COVID-19, and currency exchange fluctuations; and return on investment for export, consisting of the higher costs and the more time-consuming aspects associated with export. The second set of three findings refers to the opportunities perceived by the case subjects: product appeal consisting of offering a quality, consistent, or unique product; market prospects, which consisted of domestic growth fueling international aspirations and seeing specific opportunities in certain countries or regions; and clarity of strategy consisting of acknowledging export is difficult and taking a focused and planned approach to sell or not sell internationally. These findings address the purpose of this research: to better understand the experienced challenges and perceived opportunities U.S. maple syrup producers have exporting their product abroad.

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DEDICATION

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CHAPTER 1: Introduction and Background

Maple Syrup, The Product

Maple syrup falls into a category of products derived from the sap of maple tree species. The choicest tree for maple syrup production is the sugar maple (*Acer saccharum*), with the highest sap sugar content of all the maple species, hence the name. Other species used in North America with varying degrees of sugar content and sap production are black maple (*Acer nigrum*), red maple (*Acer rubrum*), silver maple (*Acer saccharinum*), Norway maple (*Acer platanoides*), and boxelder (*Acer negundo*) with bigleaf maple (*Acer macrophyllum*) being used in the Pacific Northwest and bigtooth maple (*Acer grandidentatum*) in the Mountain West. Maple syrup falls into the Non-Timber Forest Products (NTFPs) category because it is a natural product harvested from the forest without involving timber extraction. NTFPs include various products, such as berries, mushrooms, nuts, resins, and medicinal plants.

The flavor and quality of maple syrup depends on the tree species the sap is collected from, how early or late into the season the sap is collected, the purity of the collected sap (i.e., free from foreign material like bacteria and yeast), the soil composition the trees are growing upon, and finally the processes and equipment used to collect and refine the sap into syrup. The principal process for making maple syrup has remained unchanged since its inception: collect early-growing season tree sap; remove the sap's water through a systematic process of filtration and evaporation; continue that process until a desired sugar content and consistency are achieved. Roughly, if the sugar content of the original sap is 2% sugar, the ratio of sap to syrup is around 43.23 gallons of sap to 1 gallon of syrup (Isselhardt and Perkins, 2013). This, of course, will vary depending on

the sap's starting sugar content, efficiency of processing, and desired end sugar content, but it serves as the industry's rule of thumb.

History

Maple trees have long been a food source for Indigenous populations in the Northeastern United States. Legends say Native Americans learned to utilize the valuable sugar source hiding inside maple trees by observing squirrels breaking the tree's branches in late winter to consume the sap (Kimmerer, 2013). With further intervention and ingenuity, this sweet sap became syrup or sugar and, for centuries, were welcomed calories as a late-winter food source for indigenous populations emerging from the Northeastern winter. Maple syrup plays a similar role for people of the Northeast today but exchange "calories" for "revenue." For many small forest landowners, maple syrup is the year's first harvest, filling the slow winter period with activity and supplemental revenue.

U.S. syrup production was at its peak about 150 years ago. Maple sugaring experienced a boom during this time for a few reasons: the high cost of imported sugar, cheap labor, and it was common to farm one's land. Even with crude technology, Americans produced over 6.6 million gallons of maple syrup in 1860 (Graham, 2016). The American Civil War was being waged at this time, and purchasing U.S.-grown sugar cane supported slave labor in the South. Subsequently, U.S. sugar cane became unpopular in the abolitionist North. Seeking a dry-granular substitute for cane sugar, Northern maple syrup producers further processed maple syrup into maple sugar to replace U.S. cane sugar and the more costly imported granular sweeteners. As of 2022, the USDA reports 5.0 million gallons produced in Maine, Michigan, New Hampshire, New York,

Pennsylvania, Vermont, and Wisconsin (USDA, National Agricultural Statistics Service). This number is understated since the USDA stopped reporting syrup production in six states in 2019, and it is widely known that a significant amount of syrup is produced but not reported.

Innovations in Production

Although early European-American colonists adapted the Native American maple sap harvest with contemporary materials and technology, collection and processing methods for maple syrup did not significantly change from its inception until the 1970s. Around this time, producers began using flexible plastic tubing to convey sap directly from individual tree taps to a centralized vessel for collection. This advancement freed producers from the laborious, time-consuming, and frequent task of transporting full sap buckets for collection (Farrell, 2013b). Specific diameters of tubing coupled with appropriate incline can create a natural vacuum during a sap run called a “gravity-driven vacuum,” which pulls additional sap from the tree (Morrow, 1972). Beyond this gravity-driven vacuum system, the tubing infrastructure allowed for a further vacuum advancement where a pump could be connected to the tubing to exert more vacuum on the tree and increase flow rates to over twice that of a gravity system when leaks are kept in check (Smith and Gibbs, 1970). Additionally, using reverse osmosis machines to filter sap removes significant amounts of water from the sugar and other nutrients. Doing this before the sap enters the evaporator reduces syrup boil time by up to 85% (Farrell, 2013b). Modern processing technology has become more efficient and automated, leading to industry-wide growth over the past 40 years.

Sap Production

The biological mechanisms for how sap is moved through a maple tree are essential to the industry and the seasonality of maple syrup's production. Maple trees conduct water and nutrients (sap) through their outer tissue (xylem), which contains interspersed vessels for gas and liquid (tracheids). Sugars made in the leaves during the growing season are stored throughout the tree, including the roots, creating an osmotic gradient that draws in water from the soil. The dissolved sugar is carried through the xylem to the tree's buds, feeding new leaf growth in the spring. When the xylem freezes, gas is compressed into the tracheids while more liquid is drawn up from the roots. Upon thawing, the gas in the tracheids expands and exerts positive pressure on the sap, pushing it upwards through the tree (Graf et al. 2015). Understandably, the water conditions in the surrounding soil during the growing season will affect the amount of sugar available in the sap. Moreover, the freeze-thaw process is driven by temperature fluctuations in the late winter transitioning into early spring.

A sap flow event or "run" is initiated when the temperature rises above freezing enough to thaw the sap inside the xylem. Each run may last one to several days culminating in several weeks' worth of sap flow over the sugaring season, with the sap flow rate peaking early and then tapering off. The total sap volume in a season is driven by the number of freeze-thaw cycles, temperature extremes, tree size and health, microsite topography, and potentially other environmental factors. The more often the tree freezes completely and then thaws, the more runs that can be harvested in a season. For any given run in a sugar maple tree, there are the optimal minimum and maximum temperatures where the sap flow is highest (Heiligmann et al., 2006). This biological

process and its environmental components illustrate that a few variables can affect sap flow during the maple sugaring season.

Syrup Nutrition

The nutritional components and physical qualities of maple syrup are unique. Syrup consists primarily of sucrose and water, with small amounts of fructose, glucose, and amino acids (Van den Berg et al. 2006). A 100g measure of maple syrup contains 260 calories and comprises 32% water by weight and 67% carbohydrates (90% of those are sugars), with no appreciable protein or fat. Maple syrup is generally low in overall micronutrient content, except for manganese, riboflavin, and newly discovered compounds, like quebecol, a natural phenol unique to maple sap (Li and Seeram, 2011; Morselli, 1996). It's currently unknown which compounds are responsible for the distinctive flavor of maple syrup, but maple syrup can undergo a flavor grading process similar to that of wine or coffee. These flavors are divided into the family descriptors of vanilla, burnt, milky, fruity, floral, spicy, deterioration or fermentation, environmental, maple, confectionery, herbaceous, plant (forest, humus, or cereals), and ligneous (Taylor, 2009). Delia Smith, of British cookery fame, said maple syrup is "a unique ingredient, smooth- and silky-textured, with a sweet, distinctive flavor – hints of caramel with overtones of toffee will not do – and a rare color, amber set alight. Maple flavor is, well, maple flavor, uniquely different from any other" (Werner, 2006).

Commercial Products

Products made from *Acer sp.* sap include various grades of maple syrup, maple taffy or toffee, maple cream also known as maple butter or spread, maple sugar or candy,

maple candy floss (i.e., cotton candy), maple syrup-based sodas and seltzers, liquors, and beers, as well as beverages made from the sap itself with varying degrees of concentration for sweetness. Other products in the maple syrup category include blends of complementary tree syrups with maple (i.e., birch or walnut), blends of honey or other non-maple sweeteners (natural or artificial), added flavored (i.e., butter, marshmallow), infused (i.e., barrel-aged, spiced), or enhanced (i.e., edible glitter) maple syrup. These maple syrup-based products can then go on to flavor or sweeten other products in food categories like baked goods, candies, cereals, snacks, non-alcoholic beverages, spirits and spirit mix-ins, sauces, and spice mixtures, to name but a few.

The industry adopted an interval scale for grading maple syrup to assist consumers and manufacturers in selecting their preferred qualities and flavor profile. It is common to see retail maple syrup graded on the packaging from “Golden-Delicate” to “Dark-Robust”. “Commercial,” “field run,” or “ungraded” may be sold as an ingredient for food manufacturing. The grading of maple syrup changed in 2015 from a somewhat deceptive “A” / “B” grading to a scale describing color and taste profile (USDA, 2015). The old system was a vestige of the time when the most desirable grade of maple sugar resembled white, pure-tasting cane sugar. Other certifications, badges, and choice-architecture statements may be associated with maple syrup. Those include non-genetically modified organism (non-GMO), kosher, organic, Safe Quality Food (SQF), vegan, gluten-free, Whole-30, paleo, pure, natural, wood-fired, steam boiled, and the Audubon’s “Produced in Bird-Friendly Habits” certification. Often it is important to the market where the maple syrup was produced, as is the case for Vermont’s syrup, which is widely respected in the consumer’s mind.

Maple syrup has historically been seen as a breakfast meal sweetener in North America. Over the past several decades, more culinarily creative and value-added approaches have emerged, as discussed above. Given that maple syrup is all-natural and nutrient-rich, it has the potential to play a prominent role in the healthy snack market as an alternative sweetener to cane and beet sugar. In the competitive commodity sweetener market, maple syrup has been positioned as a natural and healthy sweetener. Albeit still a sugar-based sweetener, this gives maple a slight edge over granulated cane or beet sugar. The industry has made efforts to shift the perception of maple syrup from a “pure-maple product” to a “maple ingredient,” with the pure product being limited by traditional use at breakfast time for breakfast foods.

In contrast, the ingredient strategy opens up broader possibilities beyond the breakfast category. Examples include combining maple syrup with salad dressing, bacon, beans, sausage, BBQ sauce, athletic snacks and beverages, coffee and cocktail syrups, and more. These value-added products speak to the versatility of maple syrup as a sweetener and flavoring, as well as create a greater demand for the raw product.

Export Background

This section serves as a primer for subsequent discussions about processes, parties, and common terminology involved in export. It includes the generalities of international sales, shipping processes, and third-party entities within the context of maple syrup. A more thorough international trade analysis of maple syrup will take place in Chapter 2, with this study’s findings about international export experiences appearing in Chapter 4. International export involves the sale and transportation of goods between

countries, and it typically involves several different parties and processes. For this study's purposes, the notable processes and parties are as follows:

Initial Sales and Marketing: These are specific approaches and tactics companies use to promote and sell their products or services in foreign markets. These strategies are designed to take into account the unique cultural, economic, and political factors that can impact the success of a company's international efforts. Pertinent examples include *market research* whereby a company may hire local market research firms or leverage government resources to gather data on the target market to understand local consumer preferences, competitive dynamics, and regulatory requirement; *localization* wherein products, services, or marketing materials are adapted to meet the specific needs and preferences of a particular foreign market; joint ventures and partnerships whereby a foreign company teams with a trusted local partner to more effectively navigate regulatory hurdles, cultural differences, and other barriers to entry; *e-commerce* wherein companies leverage online platforms and digital marketing techniques, to reach potential customers in foreign markets without the need for a physical presence; *foreign market trade shows and industry events* can be a powerful way to connect with potential customers, partners, and distributors by way of showcasing products and services, networking with industry professionals, and learning about local market dynamics; and finally, *global branding* whereby a company creates a strong, recognizable, and consistent brand identity to establish a presence in foreign markets to build trust and credibility with customers abroad (Buckley and Ghauri, 2004; Keller, 2009).

Modes of Transportation: International shipping can be done via air, sea, or land and by way of numerous carriers. The mode of transportation used will depend on the

type of goods being shipped, the distance and geography between countries, the required delivery speed, and the involved parties' willingness to pay.

Freight Forwarders: In the case of a physical good, freight forwarders are companies that specialize in arranging and coordinating shipments for businesses and individuals. They handle the logistics of shipping, including packing, documentation, customs clearance, and transportation.

Export and Import Documentation: International shipping requires various documents to be completed and submitted, including commercial invoices, bills of lading, packing lists, and certificates of origin. These documents are used to identify the goods being shipped, their value, and their country of origin.

Customs Clearance: Customs clearance is the process of getting goods through a country's customs and ensuring that all necessary documentation is in order. This process can involve inspections, tariffs, taxes, and fees.

Shipment Tracking: International shipping typically involves the use of tracking systems that allow customers to monitor the progress of their shipments in real time. This can help to ensure that the goods arrive at their destination on time and in good condition.

Shipment Delivery: Once the goods have been cleared by customs, they can be delivered to their final destination. Delivery can be done by various means, including truck, train, or courier service.

In-Country Sales: Aside from the initial sales and marketing processes, this aids in the final sales efforts of in-country parties and includes pricing strategies, evaluating currency fluctuations, and local regulatory compliance.

Brokers: This term becomes muddled with entities being called “importers” or “foreign distributors” who perform similar roles for businesses. Often this term’s use needs a context to better understand the broker’s role, like “customs broker,” “shipping broker,” or “sales broker.” In the context of international trade and shipping, a broker is a person or company that acts as an intermediary between buyers and sellers and facilitates the transaction by handling various aspects of the process. Services often provided by brokers include *import and export documentation management*, whereby brokers are responsible for preparing and submitting the necessary documentation for customs clearance, such as commercial invoices, bills of lading, and certificates of origin; *customs clearance*, whereby brokers work with customs officials to ensure that goods are cleared for entry into the destination country; *logistics management* whereby brokers assist with arranging transportation, warehousing, and other logistics related to the shipment of goods; *risk management* whereby brokers help to mitigate risks associated with fraud, payment issues, and regulatory compliance. Despite the various and seemingly ambiguous titles, brokers play a crucial role in facilitating international trade by managing the complex logistics and regulatory requirements involved in shipping goods across borders.

Exporting U.S. maple syrup involves several steps, not dissimilar from any other shelf-stable agricultural product, which includes sourcing the product, preparing it for export, and shipping it to the destination country. Sourcing may include certification processes or verification steps for labels such as “Organic” or “Kosher.” Since maple syrup is a food product, many countries require country or region-specific ingredient and nutrition labeling. As such, a producer’s preparation for export may include editing or

translating product labels to conform to the foreign market. In regards to shipping, maple syrup is a relatively heavy product which leads to higher shipping costs. Often retail packaged maple syrup is bottled in glass, which adds to the weight and cost of shipping. For bulk shipments, the syrup may be transported in various sizes of packaging ranging from 5-gallon plastic buckets to 55-gallon stainless steel drums, all the way up to 200+ gallon totes called intermediate bulk containers (ICBs) or liquid container trucks. For bulk maple syrup, the product itself may be sold as graded syrup of any grade, ungraded syrup, also known as “field run,” or concentrated sap under 65%. These ranges of bulk products are often used for food manufacturing or sold to consolidating operations for further processing, blending, and repackaging purposes.

Exporting U.S. maple syrup at any scale can be a complicated and rigorous process, especially for the uninitiated. However, it can provide opportunities for producers to reach new markets and grow their businesses, as will be discussed in the following section.

The International Opportunity for Maple Syrup

In recent years, maple syrup small- to medium-sized enterprises (SMEs) in the United States are relying even more than usual on bulk sales domestically (Gregg, 2020). This highlights the vital role performed by the maple syrup industry’s bulk buyers, also known as consolidators. Bulk sales accounted for 76% of total U.S. sales for maple syrup producers in 2021, with another 8% wholesale and only 15.8% retail (USDA National Agricultural Statistics Service, 2022). Additionally, this phenomenon also gives credence to the general importance of expanding markets and increasing exports which will ultimately benefit all actors in the value chain. Efforts to attract more producers, improve

production efficiency and yield, and spur new technological innovations have been quite effective. American maple syrup production has doubled over the past ten years, with 2016 to 2019 seeing more than one million new taps added in the United States (USDA, 2019). Despite this growth in U.S. production, the United States' consumption greatly outpaces its domestic production, relying on imports from Canada to supply the U.S. demand. This fact will be further explored in this study, but it represents a significant growth opportunity for U.S. producers to supply domestic consumers.

In 2011, Farrell and Chabot (2011) estimated that U.S. producers were tapping less than one percent of the accessible maple trees. Then, comparing Vermont's production to Maine, New Hampshire, and New York, Farrell and Chabot estimated an added economic benefit of \$100 million if those states were to tap their available maple trees at the same level as Vermont's 2011 utilization rate of 2.94% (Farrell and Chabot, 2011). Emerging regions continue to add to the U.S. market. For example, in the Pacific Northwest, bigleaf maple syrup is starting to see a move toward commercialization, spurred on by regional interest and production research (Braun, 2022).

As production increases, there is a concurrent and vital need for marketing and promotion (Farrell and Chabot, 2011). Morin's interview with maple syrup producers found a widespread need for information about domestic and international markets and effective maple syrup marketing strategies. As explained by one interviewee: "...we have a whole slew of things to learn about exporting... the world wants our product, it's just a matter of getting there" (Morin, 2014). Morin's study suggests that maple syrup producers undertook little or no marketing efforts and, as such, is a significant deterrent to the growth of the industry (Morin, 2014).

Similarly, Farrell and Chabot comment on the opportunity to supply in-demand markets. They write, “If the maple industry continues to expand and supply outpaces demand, it should not be viewed as an overproduction problem, but rather an under-marketing problem. There is overwhelming evidence that investments in marketing pay off in terms of increased consumption” (Farrell and Chabot, 2011). Rising demand helps maintain or improve prices to benefit SMEs. Larger companies or consolidators likely may be the ones initially conducting international sales, but they are usually sourcing most of their bulk product from many small producers. The syrup purchased for consolidation and eventually export is originally produced from thousands of maple syrup SMEs.

Efforts are underway to expand domestic consumption in the United States. For example, in 2019, a USDA ACER grant was awarded to the University of Maine to assess consumer attitudes and preferences by state and quantify the potential value of U.S. market opportunities for domestic maple syrup (UMS, 2019). Future supply and demand will undoubtedly fluctuate with economic conditions, market factors, changing weather, and other factors producers cannot control. Intentional internationalization develops new demand and creates secondary markets, which helps SMEs prosper when market conditions are good and survive when they are not.

Internationalization Considerations for Small- to Medium-Sized Enterprises

This section deals with internationalization, or the process an enterprise takes to increase its involvement in international markets, and how this phenomenon is generally beneficial to enterprises but can be fraught with missteps if not thoughtfully considered. It is well known that internationalization can be one of the main drivers guiding a company’s growth (Lages et al., 2013). Although the vast majority of SMEs do not export,

there can be great growth opportunities abroad to expand beyond crowded and competitive domestic markets. With globalization and the rise of the digital economy, SMEs have more opportunities than ever to expand their markets beyond their domestic borders.

Studies find international expansion efforts help businesses access new markets and resources, which leads to increased competitiveness and revenue while helping to mitigate risk and diversify revenue streams (Oviatt and McDougall, 1994; Contractor and Kundu, 1998). Moreover, internationalization has been found to be particularly beneficial for SMEs, which may face limited growth opportunities in their domestic markets. SMEs that internationalize are more likely to achieve greater economies of scale and reduce their dependence on a single domestic market, resulting in increased revenue and profitability (Knight and Liesch, 2016). In addition to these economic benefits, internationalization can also help to enhance a business's brand and reputation. Operating in multiple markets can help businesses to develop a global reputation and increase their visibility among international customers, leading to enhanced brand equity and customer loyalty (Johanson and Vahlne, 1990).

Often for SMEs, internationalization involves a gradual process of learning and adapting to new markets. According to the Uppsala Model of Internationalization developed by Johanson and Vahlne (1977), SME internationalization is a gradual process that involves four stages: 1) No regular export activities; 2) Export via independent representatives; 3) Establishment of foreign sales subsidiaries; and finally, 4) Production abroad. Each stage requires different levels of commitment and resources, and going through all four stages can take years, if not decades, to complete. There is, in fact,

debate over the two juxtaposed paces at which companies can begin their internationalization process: one of a gradual approach (Johanson and Vahlne, 1977) and the other of a faster approach (Baronchelli and Cassia, 2014; Knight and Cavusgil, 2004; Oviatt and McDougall, 1997).

The internal strategies and policies companies must establish to manage export operations, sales channels, and marketing processes at the international level remain a highly contemporary issue due to the near-constant evolution of the international landscape. Navigating strategy and policy implementation is even more of a pressing concern for SMEs, given the barriers to internationalization relating to but not limited to the company's size, resources at its disposal, overall management, and human resources necessary to support internationalization activities, such as market research, marketing, and distribution (Hutchinson et al., 2009; Marchi et al., 2014). A company not only faces these internal challenges but must grapple with the external challenge of adapting to different legal systems, regulatory frameworks, and trade barriers, which can vary highly from country to country (Krambia-Kapardis and Zopiatis, 2018). This can limit SMEs' ability to compete in foreign markets, constrain adapting to local market conditions, and can lead to high compliance costs and legal risks, which can be particularly cumbersome for SMEs that lack the resources to manage legal complexity.

Then there are the critical concepts regarding foreign market selection and perception in the selected market, such as the so-called psychic distance, which is the perceived psychological distance between the country of origin and the foreign market destination leading to views of "foreignness" or "otherness" in the foreign market. (Kontinen and Ojala, 2010; O'Grady and Lane, 1996). In some cases with certain

countries of origin, this perception can be an advantage, but it has been shown that psychic distance can result in a disadvantage of foreignness within the new market (Johanson and Vahlne, 2009). Not only can psychic distance be a hindrance to brand-building and sales efforts, but different cultural values, beliefs, and business practices can affect negotiations, communication, and relationship-building with foreign partners (Jansson and Sandberg, 2013). And, of course, language barriers can obstruct effective communication with customers, suppliers, and partners in foreign markets (Chetty and Campbell-Hunt, 2004). Studies have also found that SMEs need to become “insiders” in their new foreign markets to avoid disadvantages associated with foreignness (Hilmersson and Jansson, 2012; Schweizer, 2013). Considering all of that, SMEs must deliberate on the impact the foreign context may make on their decision-making to develop effective exporting and international marketing strategies (Cavusgil et al., 2005).

As previously stated, SMEs face pressure with internationalization efforts with the added complexity of these market decisions and strategies. SMEs’ difficulties do not end there. Marchi et al. (2014) have highlighted various difficulties they may encounter while internationalizing; chief among them and divergent from the challenges previously discussed is the lack of knowledge and experience SMEs have in international markets. This makes it difficult for SMEs to identify and assess the opportunities and risks of different markets. As a result, small firms may face higher levels of uncertainty and risk when entering new markets. As such, SMEs may use a non-systematic approach to select foreign markets or make non-rational entry decisions (Brouthers and Nakos, 2005; Francioni et al., 2013). Contributing factors to this non-systematic internationalization approach include firm size, firm age, owner's education and experience, perceived market

opportunities, and competitive pressures. These decisions to enter or not enter foreign markets have been shown to little be left up to a combination of intuition, trial and error, opportunistic behavior, informal networks, and personal relationships to identify and capitalize upon international opportunities (Brouthers and Nakos, 2005; Francioni et al., 2013).

In the case of a growing maple syrup industry full of SMEs well-positioned to enter international markets, the literature outlines a path to internationalize but a path that must be well considered. Chamberlain et al. (1998) show that it is not far-fetched for large-volume, high-value, and commercializable American NTFPs, like maple syrup, can be successfully sold abroad by SMEs. Exploring and understanding the challenges and opportunities of exporting maple syrup becomes important shareable knowledge for a growing industry with producers interested in taking their maple products to foreign markets.

Relevance

It is unclear exactly the amount, but the estimated size of the population of small-to medium-sized U.S. maple syrup producers who currently export or who sell directly to international consumers is likely under 20 producers. This estimate includes producers who vary in size of operation and production with varying levels of international-sales strategy, experience, and implementation. The importance of this research lies in finding the challenging elements of international sales while also understanding the opportunities that SMEs could leverage. Given the small-estimated size of exporting SMEs coupled with the lack of academic and publicly available information about U.S. maple syrup export, the U.S. maple sugaring industry is positioned to be receptive to these findings.

Analyzing these experiences and distributing these findings within the maple syrup industry at large will be for a shared gain in generalizable knowledge and mutual benefit of current and future exporters.

The qualitative research approach was used to understand and develop an inductive analysis of the process and experience maple syrup SMEs have when exporting their product. The bounded population of small- to medium-sized U.S. maple syrup producers who currently export or have exported in the past served as the pool for purposeful sampling. This novel data was acquired through a collective case study analysis by which subjects of this population were interviewed about their experience exporting maple syrup from the United States. Given the small-estimated sample size, empirical generalizations were difficult to make; however, from these information-rich cases, patterns, insights, and in-depth meaning emerged. Collecting and analyzing these cases of internationalization is important knowledge that can be shared with others wanting to expand their business internationally, inform their current international strategy, or better understand some of the market dynamics currently at play in the maple syrup industry.

Research Questions

The overarching research question that guided this study's design is:

1. To what extent have U.S. maple syrup SMEs sold their products internationally?

This primary question led to secondary questions examining this exporting experience, namely:

2. How have SMEs conducted export, if at all?

- a. What products have the identified SMEs exported?
 - b. Who are the types of customers buying their products?
 - c. Where have the identified SMEs exported?
 - d. How have they exported their products?
3. What challenges and bottlenecks are perceived by each maple-syrup SME exporting or not exporting?
 4. What are the opportunities and strengths perceived by each maple-syrup SME exporting or not exporting?

After examination of the subject's responses for themes and commonalities, a final question was considered:

5. Given the current domestic market opportunity for U.S. maple syrup, are there economic incentives for U.S. SMEs to develop export markets?

CHAPTER 2: U.S. Maple Syrup Trade Analysis

Introduction and Data Review

Trade in maple syrup products is captured in the trade data as “Maple Sugar and Maple Syrup” contained within the Harmonized System (HS) as the six-digit code 17.02.20 in the HS Heading “Sugars and Sugar Confectionary.” The six-digit HS code can expand to a ten-digit code where further sub-headings and suffixes are used for greater product specificity or to apply certain country regulations. There exists further segmentation of the maple syrup sub-heading into at least 12 ten-digit HS codes. In preparation for this chapter’s analysis, these additional ten-digit HS codes from USATrade data (usatrade.census.gov) were reviewed.

Upon preliminary analysis of the ten-digit HS codes, for the period of 2008 to 2022, 17.02.20.4090 “Maple Syrup” makes up between 98.4% - 99.7% every year, and 17.02.20.4010 “Maple Sugar” makes up between 0.3% - 1.6% every year. Over the period, these two codes comprise 99.7% - 100.0% of the U.S. trade data. For this reason, it was considered material to use the six-digit code 17.02.20 for “Maple Syrup” as it accounts for mostly maple syrup product trade with little variation from that core product. As such, the remaining HS codes corresponding to maple syrup or sugar will not be analyzed and, for the purposes of this study, considered extraneous, but findings should be viewed in this context.

Some general notes on the data and calculations used throughout this chapter. All trade values are based on what value the importer of record declared at the time of import and should be considered wholesale values. Canadian data often records in gallons; however, these are imperial gallons as opposed to U.S. gallons. Where that was the case,

the imperial gallons were converted to U.S. gallons at a ratio of 1 imperial gallon to 1.2 U.S. gallons. Where Canadian data was recorded in Canadian Dollars, a conversion to U.S. Dollars (USD) was calculated using the average annual exchange rate for each year of converted data. For ease of comparison, some volumes recorded in kilograms were converted to U.S. gallons using: $(\text{kg} \times 2.2) / 11.1 \text{ lbs}$. The calculations mentioned are to be assumed for all analyses contained unless otherwise noted. Additionally, a retrospective of 12 years of data was used unless otherwise noted.

Finally, a note on Canada. It will be to no U.S. producer's surprise that this chapter analyzes the international trade of maple syrup with a focus on Canada, given the majority of maple syrup's economic geography resides in Canada. With this context, Canada plays a significant role in the global maple syrup trade. This analysis is not to the exclusion of other countries, but most activity, from production to consumption, from importing to exporting, happens in the context of the United States and Canada. A majority of this analysis will be looking at the trade, production, and consumption data for the United States and Canada, which will serve as a relevant backdrop for the findings contained in Chapter 4.

Production and Consumption

This section deals with the production and consumption of maple syrup in both the United States and Canada with nuanced analysis looking at per capita consumption, comparison between the United States and Canada, and the significant growth of both production and consumption of maple syrup in the United States over the past several decades.

Considering that production boom in the United States, maple syrup production has grown over the past three decades, seeing a 306% increase from 1992 to 2022, with the state of Vermont alone increasing its production in that timeframe from 570,000 gallons to 2,550,000 gallons, a 447% increase. Figure 1 shows the significant and rapid growth in domestic maple syrup production, seeing marked growth starting in 2008 and continuing until 2022. While this is no doubt impressive production growth for the country's maple industry, U.S. consumption over the past decade has grown even faster. Figure 2 shows that over the past 12 years, from 2011 to 2022, U.S. maple syrup production rose 71%, from 2.94 million gallons to 5.03 million gallons. During that same period, U.S. consumption grew 109%, from 6.01 million gallons to 12.57 million gallons. This is a significant supply-and-demand dynamic and market trend that influences much of the subsequent findings in this section; for the past 12 years, domestic consumption has greatly outpaced domestic production in the United States.

Figure 1- U.S. Maple Syrup Production

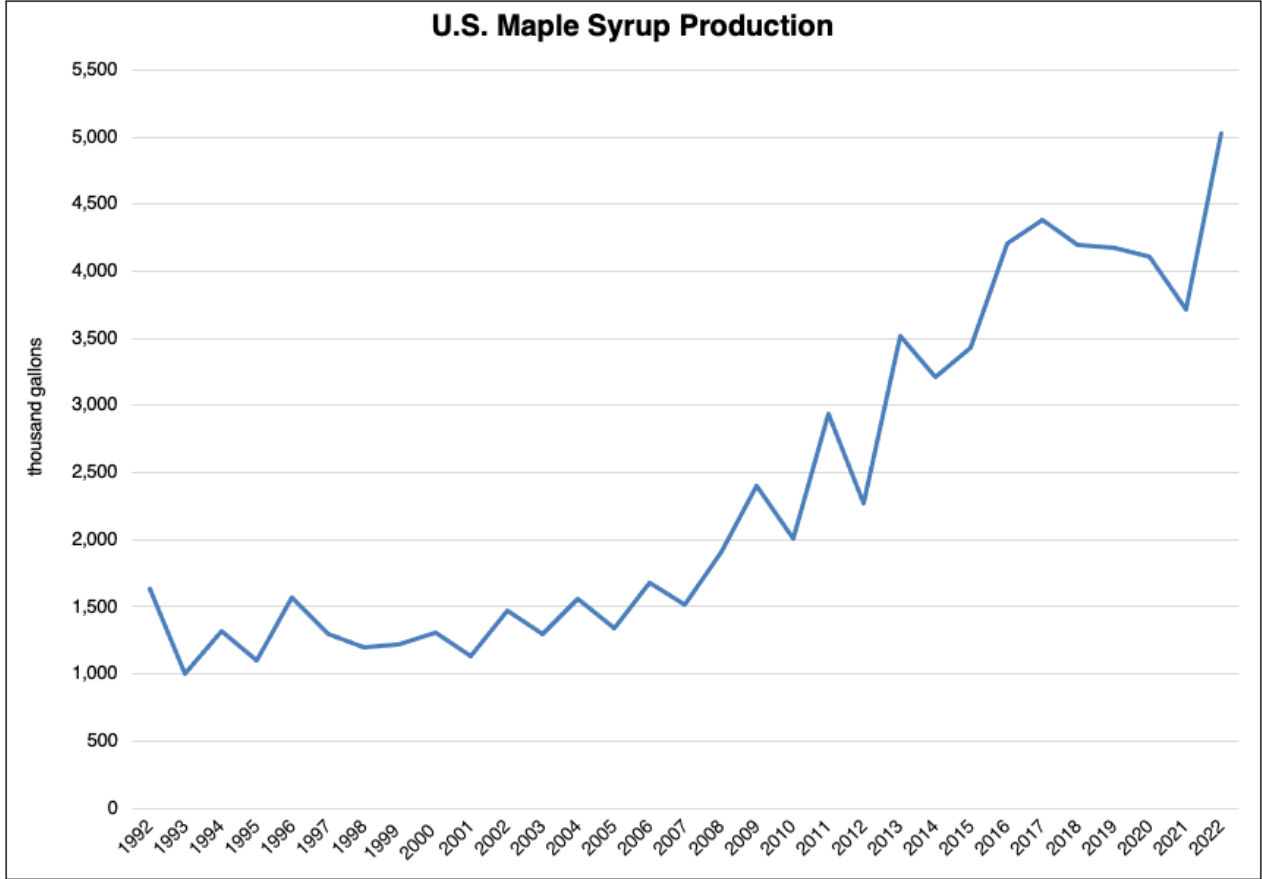


Figure 1: U.S. maple syrup production from 1992 to 2022 measured in U.S. gallons (source: USDA National Agricultural Statistics Service)

Figure 2- U.S. Maple Syrup Consumption and Production by Volume

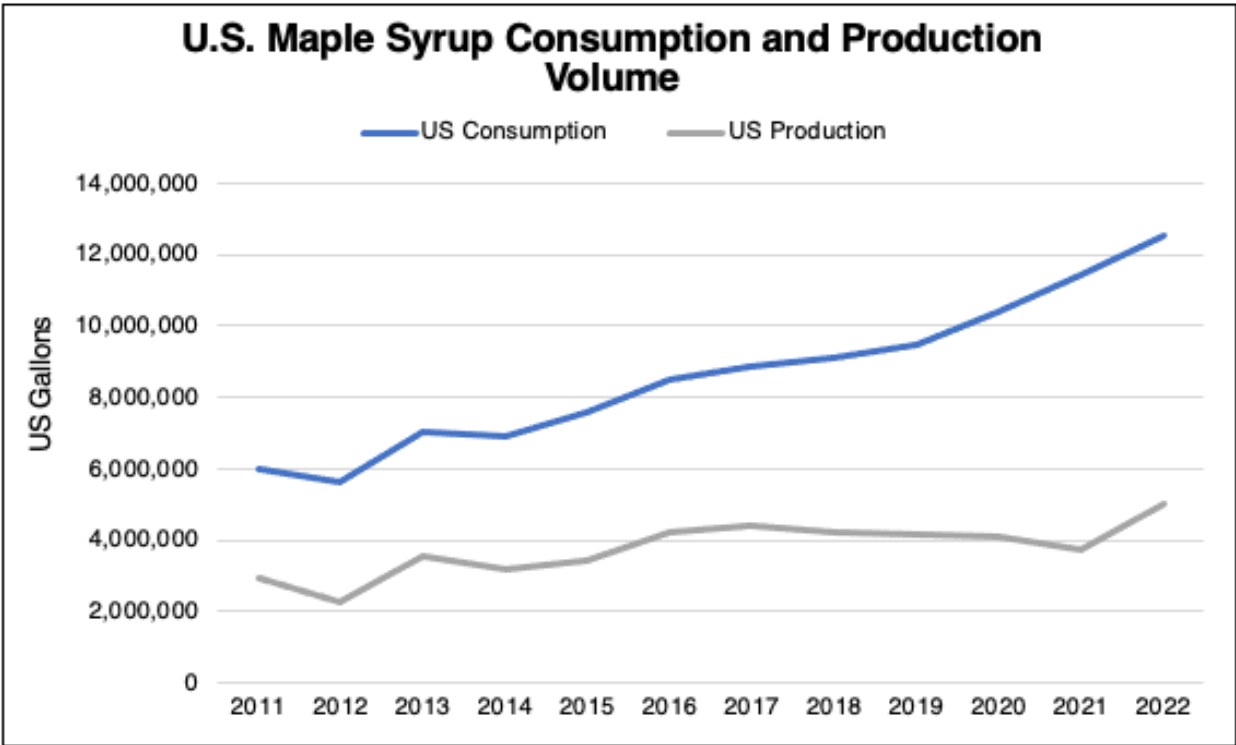


Figure 2: U.S. maple syrup apparent consumption and production from 2011 to 2022 measured in U.S. gallons. (calculated using production data from USDA National Agricultural Statistics Service, population data from US Census, and trade data from USATrade, and UN Comtrade)

Figure 2 and Figure 3 show the extent to which U.S. consumption of maple syrup has doubled over the past 12 years, both in terms of volume (Figure 2) and value (Figure 3). U.S. consumption per capita is still quite small but growing, just under 5 ounces for 2022. A study found in the United States that between 1985 and 2009 that per capita consumption saw a significant rise of 155% (Farrell, 2013a). Additionally, the study found that individuals residing in regions where maple syrup is produced tend to consume more of it, an important consideration when looking at this analysis (Farrell, 2013a).

On average, Canadians consume about three times as much maple syrup per capita compared to Americans, at 17.5 ounces in an average year (Figure 4). References

to Canadian consumption do not account for the Canadian strategic reserve of maple syrup. Since the consumption amounts are “apparent consumption” calculations, using an equation of *production + imports – exports*, the Canadian reserve augments the exports when maple syrup is released, and strategic reserve data for releases is not readily available. Figure 4 shows Canadian consumption with a linear average line showing the apparent consumption trend over the time period.

Figure 3- U.S. Maple Syrup Consumption by Value

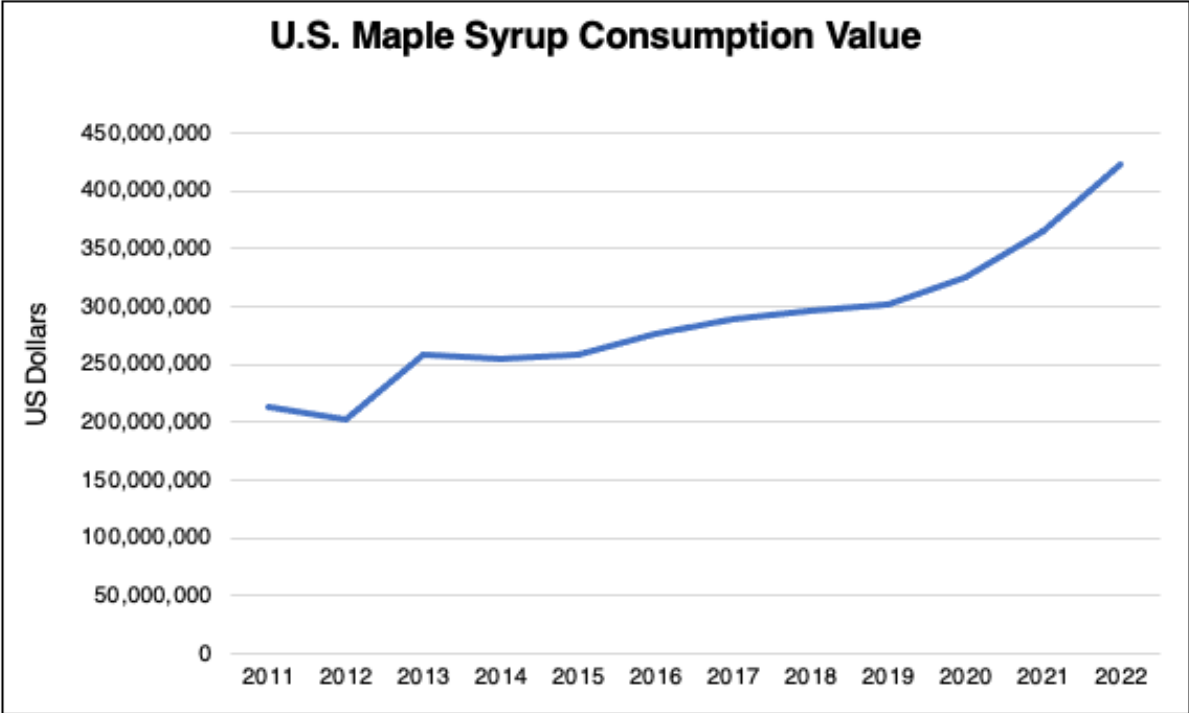


Figure 3: U.S. maple syrup apparent consumption from 2011 to 2022 measured in U.S. dollars. “Value” here is considered trade value, not wholesale or retail value. (calculated using production data from USDA National Agricultural Statistics Service, population data from US Census, and trade data from USATrade and UN Comtrade)

Figure 4 - U.S. and Canadian Maple Syrup Consumption Per Capita

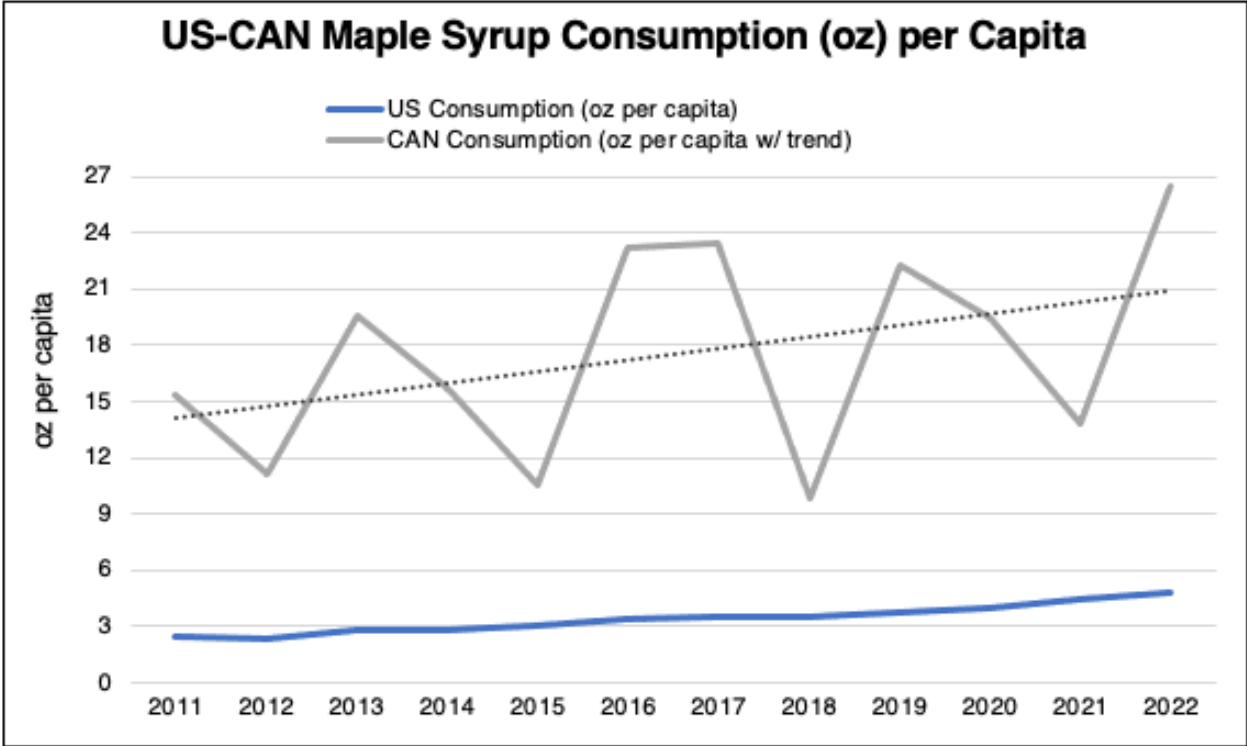


Figure 4: U.S. and Canadian maple syrup apparent consumption per capita from 2011 to 2022 measured in ounces (oz). (calculated using production data from USDA National Agricultural Statistics Service, population data from US Census and StatCan, and trade data from USATrade, UN Comtrade, and StatCan)

Despite a well-established and growing industry in the United States over the past several decades, Canadian maple syrup has maintained wide respect with American and global consumers. The reality is that Canadian maple is overwhelmingly the globe’s primary supply and that maple syrup is identified as a quintessential Canadian product – the Canadian flag, after all, prominently features a maple leaf. This international respect for Canadian maple syrup is backed up by a strong culture of maple syrup production and volume to match. Figure 5 compares annual production in the United States, the second largest maple syrup producer, to Canada, the largest producer of maple syrup. The difference between the two country’s production over the 12-year period is nearly an

average of 9.8 million gallons per year, with the greatest disparity in 2022 of 15.8 million gallons.

Figure 5 - U.S. and Canadian Maple Syrup Compared by Volume

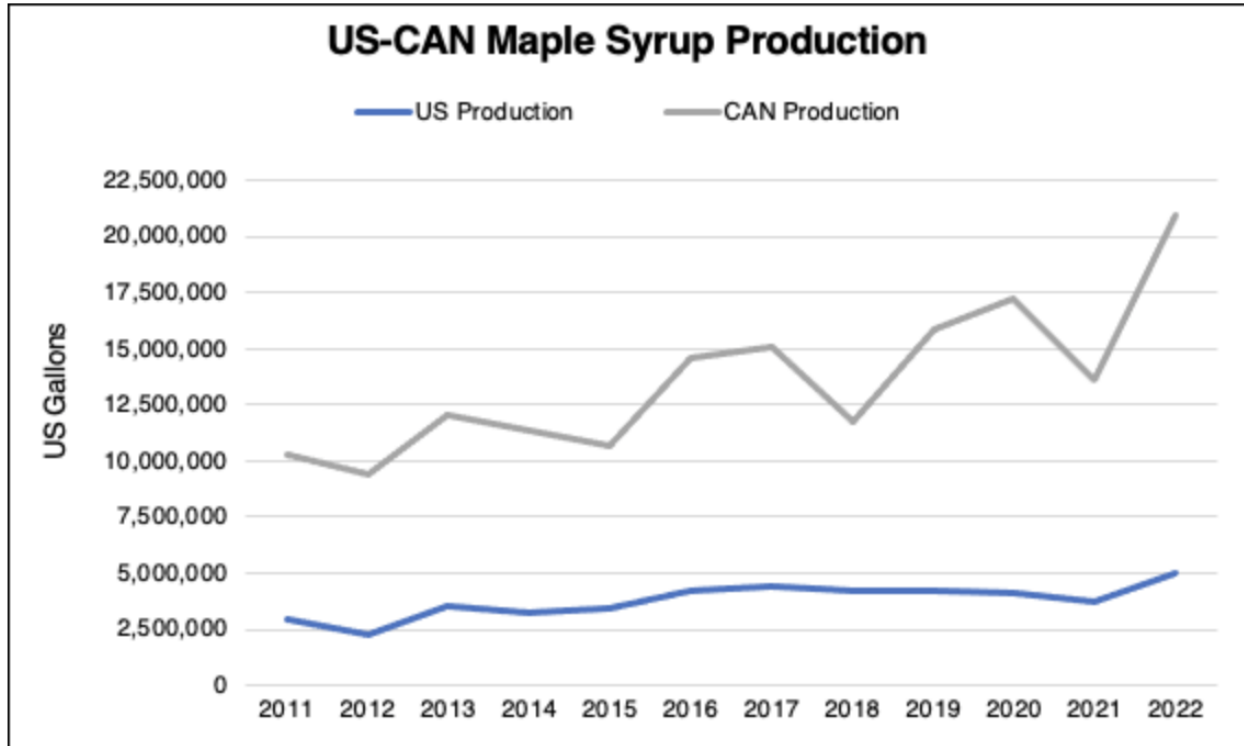


Figure 5: U.S. and Canadian maple syrup compared from 2011 to 2022 measured in U.S. gallons. (calculated using production data from USDA National Agricultural Statistics Service and StatCan2)

Over 90% of Canada’s maple syrup is produced in the province of Quebec. In 1958, Quebec maple syrup producers founded a private organization called the Federation of Quebec Syrup Producers (Fédération des Producteurs Acéricoles du Québec, (FPAQ)), which is responsible for setting prices, marketing the product, and maintaining a national strategic reserve for maple syrup. As weather dramatically affects production from season to season, FPAQ established the reserve in the year 2000, which has vastly increased the market globally for syrup. The strategic reserve maintains domestic and global supply when environmental or market factors cause volatility in

Canadian syrup production. This central marketing and production agency controls the Quebec maple syrup supply and sets prices at values sustainable for their producers (FPAQ, 2019). However, some Québécois producers see FPAQ as hurting Canada's domestic industry with strict quotas and price controls (Vailante, 2018).

U.S and Canadian Trade

Of course, as the only two countries producing noteworthy quantities of maple syrup, all Canadian imports of maple products are sourced from the United States. In 2022 New England (defined here as the states of Maine, New Hampshire, and Vermont) comprised 97% or roughly \$11 million of exports to Canada, with 87% of that exported maple syrup coming from just the state of Maine (Figure 6). On the other hand, in 2022, the United States imported roughly \$291 million of maple syrup from Canada (source: USATrade and StatCan).

This illustrates the geographic convenience and economic situation of U.S. producers, implying a scenario where it is more financially feasible for syrup producers in the Northeast United States, just across the border from Canada, to transport their syrup in bulk to Quebec's more robust industry's infrastructure for further process and packaging. Canada's imports from the United States are only 3% of Canadian production (source: USATrade and StatCan). Furthering the conclusion that whatever the United States sends to Canada comes back to the United States after being manufactured or packaged for the end consumer. Accordingly, this analysis cautiously but rationally assumes that U.S. exports to Canada are a matter of commercial convenience, not competition.

Figure 6 - U.S. Maple Syrup Exports to Canada by Top Three Exporting States as a Percentage of Total Value

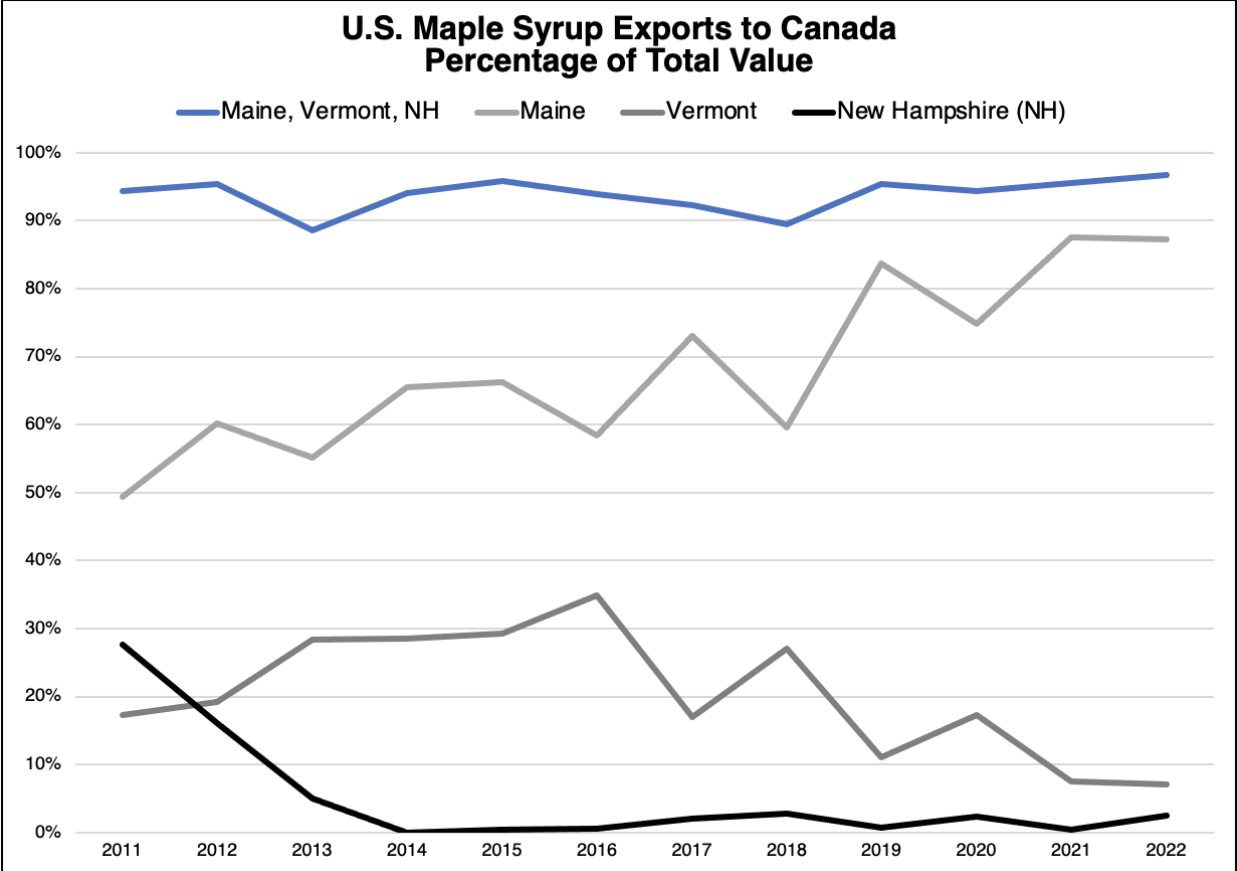


Figure 6: U.S. maple syrup exports to Canada by the top three exporting states, with the top three states also combined for comparison. “Value” here is considered trade value, not retail value. Measured as a percentage of total value from 2011 to 2022. (calculated using trade data from USATrade and StatCan)

Turning now to Canadian global export, Canada provides most of the world’s maple syrup (Figure 7 and Figure 8). As such, Canada can command the market and set the global price. Excluding trade between the United States and Canada, following a push into export markets between 2011-2016, Figure 9 shows how Canada has maintained 88% - 95% of the international trade.

Figure 7 - U.S. and Canadian Total Maple Syrup Exports by Volume

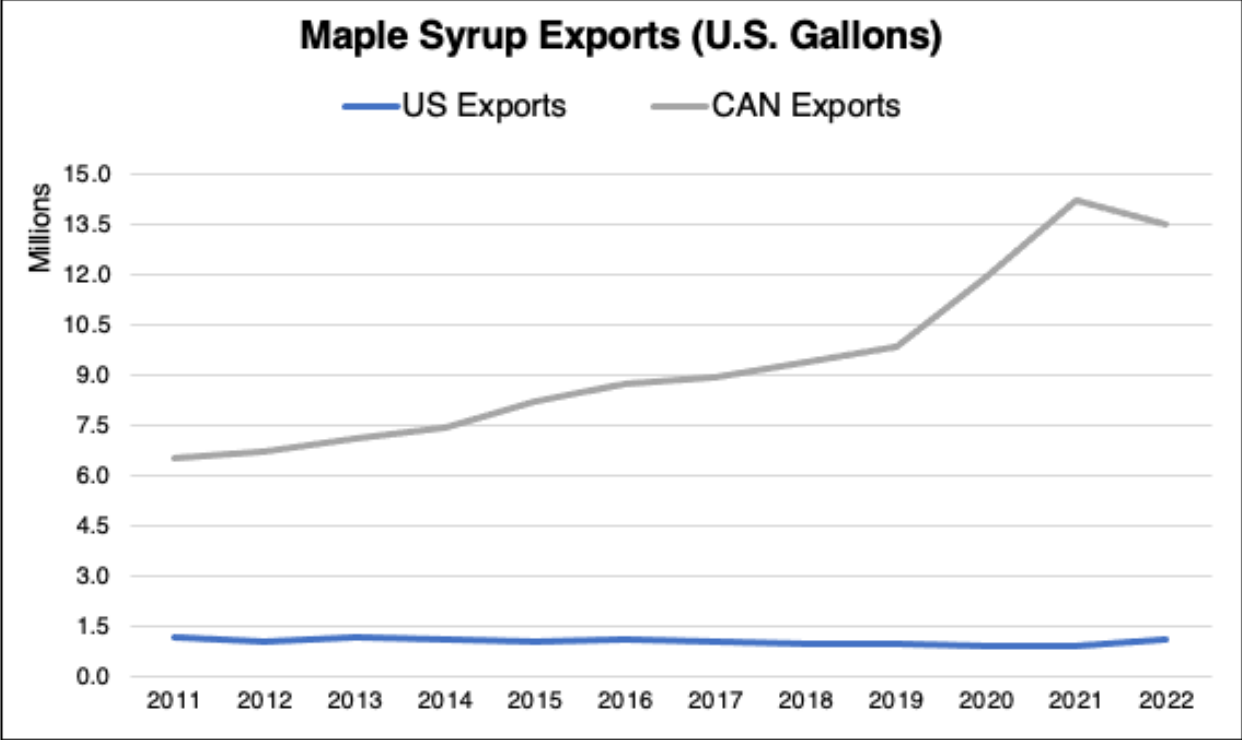


Figure 7: U.S. and Canadian total maple syrup exports measured in U.S. gallons from 2011 to 2022. (calculated using trade data from USATrade, UNComtrade, and StatCan)

Figure 8 - U.S. and Canadian Total Maple Syrup Exports Excluding US-CAN Trade by Volume

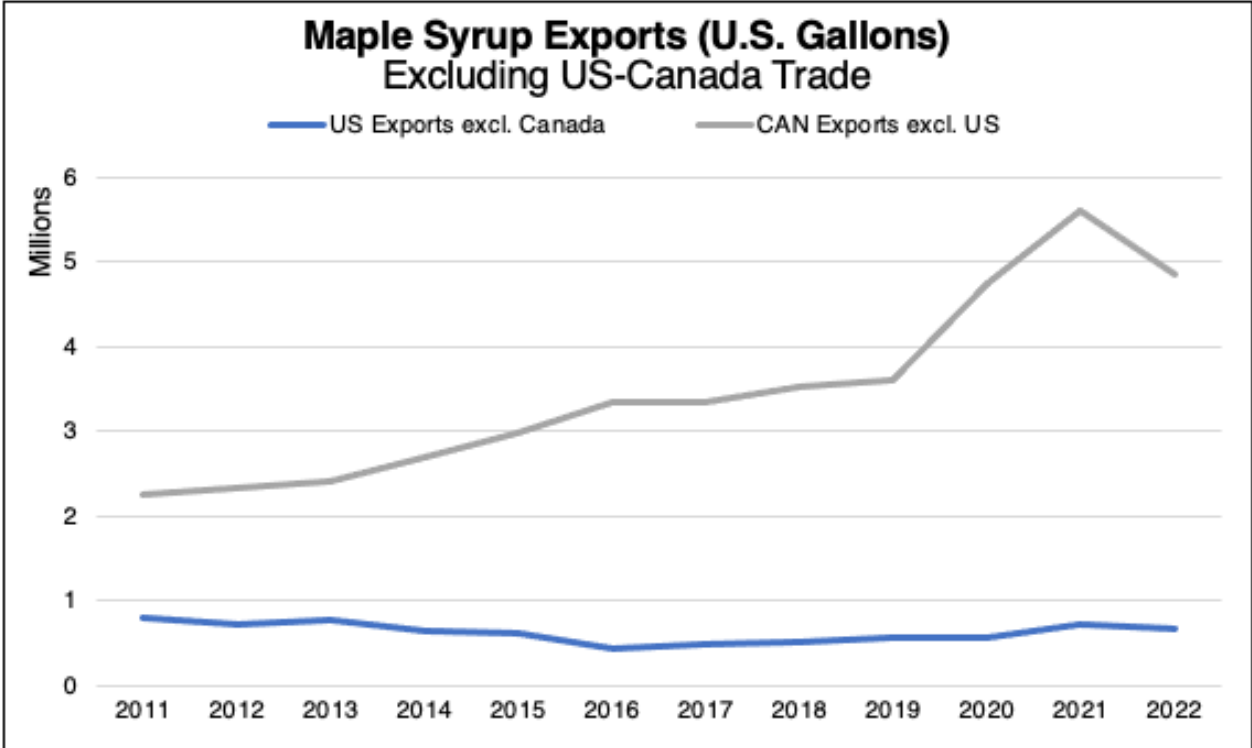


Figure 8: U.S. and Canadian total maple syrup exports by volume, excluding the US and Canadian export from each other. Measured in U.S. gallons from 2011 to 2022. (calculated using trade data from USATrade, UNComtrade, and StatCan)

Figure 9 - Canada's Proportion of Global Maple Syrup Trade

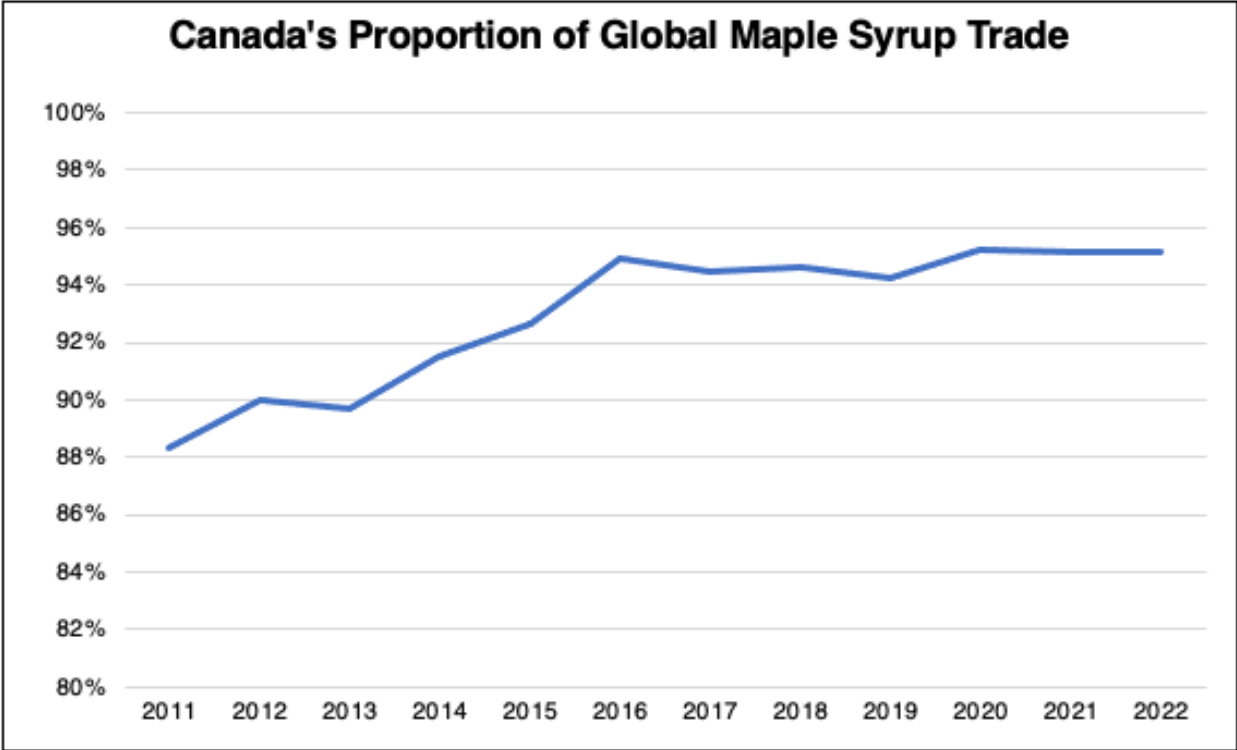


Figure 9: Canada's proportion of the global made syrup trade measured as a percentage of the whole. Calculated using net US-CAN trade. (sources: USATrade, StatCan, and UNComtrade)

Reviewing both this section and the previous section on “Production and Consumption,” it becomes clear the United States has supplied its growth in consumption by cutting exports and increasing imports from Canada. From 2011-2022, Canada has doubled both production, up 104%, and exports, up 107%, while seeing a reduction in imports of 55%, as more U.S.-produced maple syrup stayed in the United States to meet the growing domestic consumption. The United States has supplied the additional domestic consumption by cutting exports by 7% and increasing imports by 3%, all of which are from Canada. Accounting for what the United States exports to Canada and returns to the United States as a Canadian import, the United States produces only 40%

of the maple syrup which Americans consume. Said another way, Canada now supplies roughly 60% of the maple syrup consumed in the United States.

U.S. Global Trade

Despite an industry established and perpetuated by two North American countries, maple syrup does find its way into markets abroad. This section will focus on the United States and its trade with the international markets, which will exclude Canadian trade, for clarity of analysis. The data analysis in this section spans from 2002 to 2021/22 for a more meaningful retrospective, as some countries have data with high fluctuations year-to-year, and a shorter time period may not capture a trend.

The three following figures are concerned with U.S. export value (Figure 10), volume (Figure 11), and value per gallon (Figure 12). This establishes a foundation for the economic benefit the United States derives from international trade. Comparing Figures 10 and 11, the overall trade value of U.S. exports has continued to grow, with trade volume seeing a decline starting in 2013, seeing its trough in 2016, then rebounding until 2021. Referencing the corresponding years in Figure 12, the average value per gallon climbs with a spike in 2016 and levels off in subsequent years as trade value and volume balance.

Figure 10 - Total Value of U.S. Maple Syrup Exports Excluding Trade with Canada

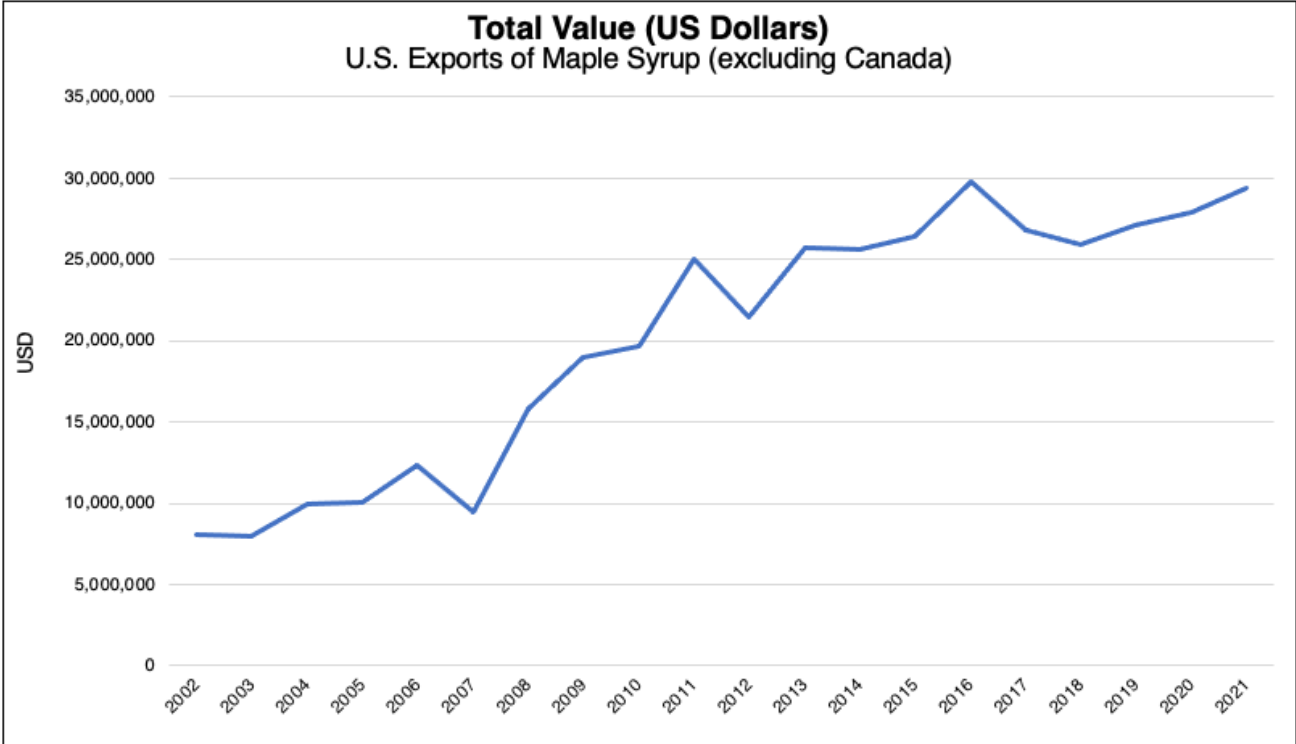


Figure 10: Total value of U.S. maple syrup exports. Excludes trade with Canada Measured in U.S. dollars from 2002 to 2021. “Value” here is considered trade value, not retail value. (calculated using trade data from USATrade and UNComtrade)

Figure 11 - Total Volume of U.S. Maple Syrup Exports Excluding Trade with Canada

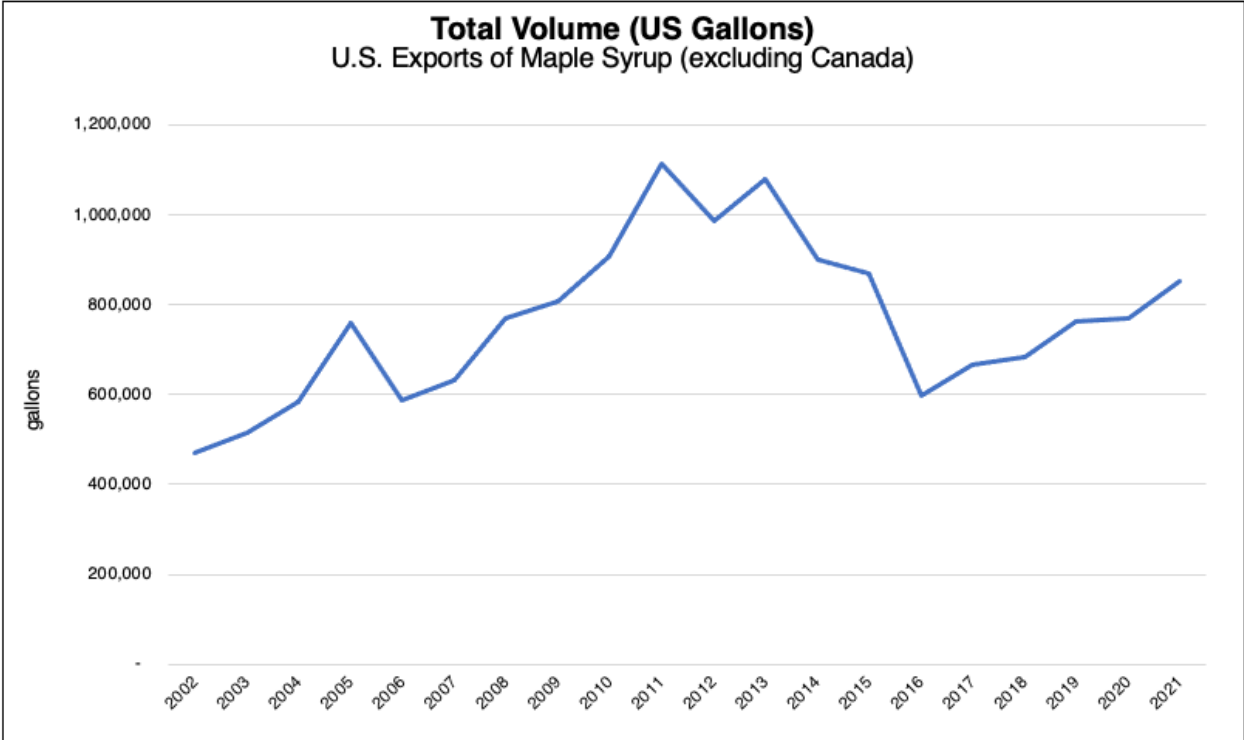


Figure 11: Total volume of U.S. maple syrup exports. Excludes trade with Canada Measured in U.S. gallons from 2002 to 2021. (calculated using trade data from USATrade and UNComtrade)

Figure 12 - Average Value per U.S. Gallon of U.S. Maple Syrup Exports Excluding Trade with Canada

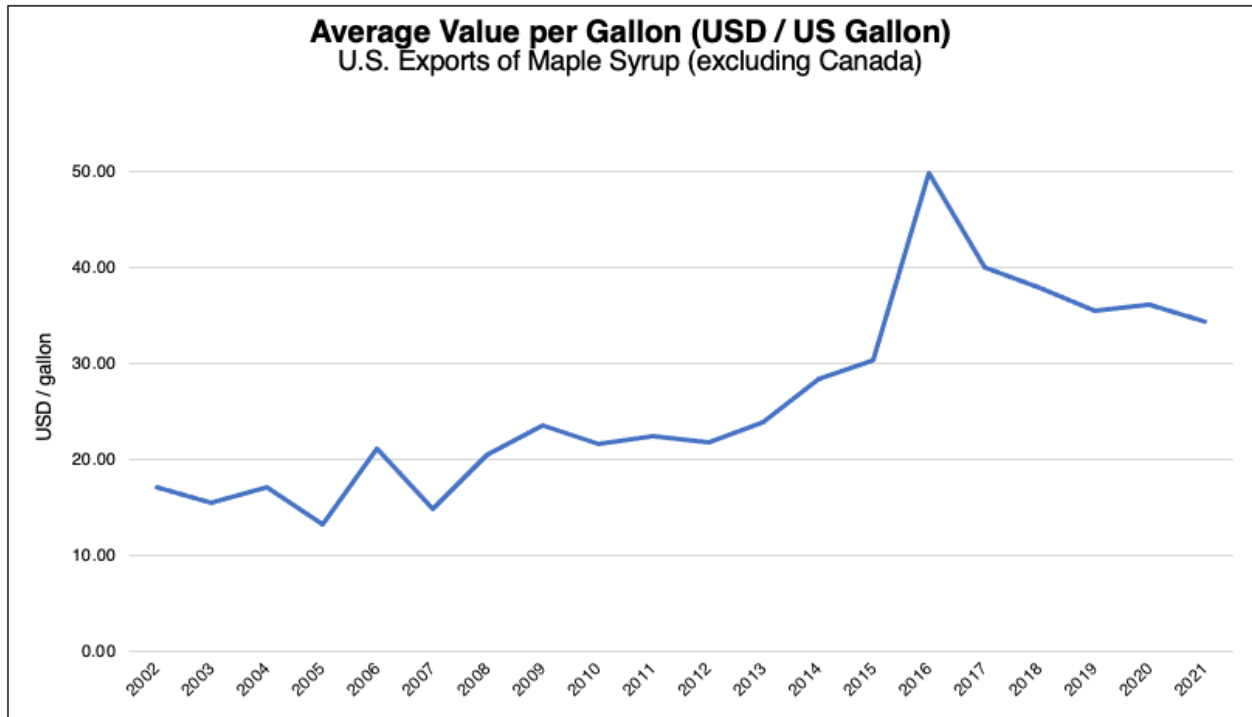


Figure 12: Average Value per Gallon of U.S. maple syrup exports. Excludes trade with Canada Measured in U.S. dollars per U.S. gallon (USD/gallon) from 2002 to 2021. “Value” here is considered trade value, not retail value. (calculated using trade data from USATrade and UNComtrade)

Putting U.S. export value into the context of global and Canadian maple syrup export value, Figure 13 shows the total value of exports to the world, exports to Canada, and the value of exports to the world with exports to Canada removed. This highlights the significance of exports to both the globe and Canada; where in the aughts, the United States was very reliant on exports to Canada, but since 2017 the United States. has increased exports to the global market while decreasing exports to Canada.

Figure 13 - U.S. and Canadian Total Maple Syrup Exports by Value Excluding US-CAN Trade

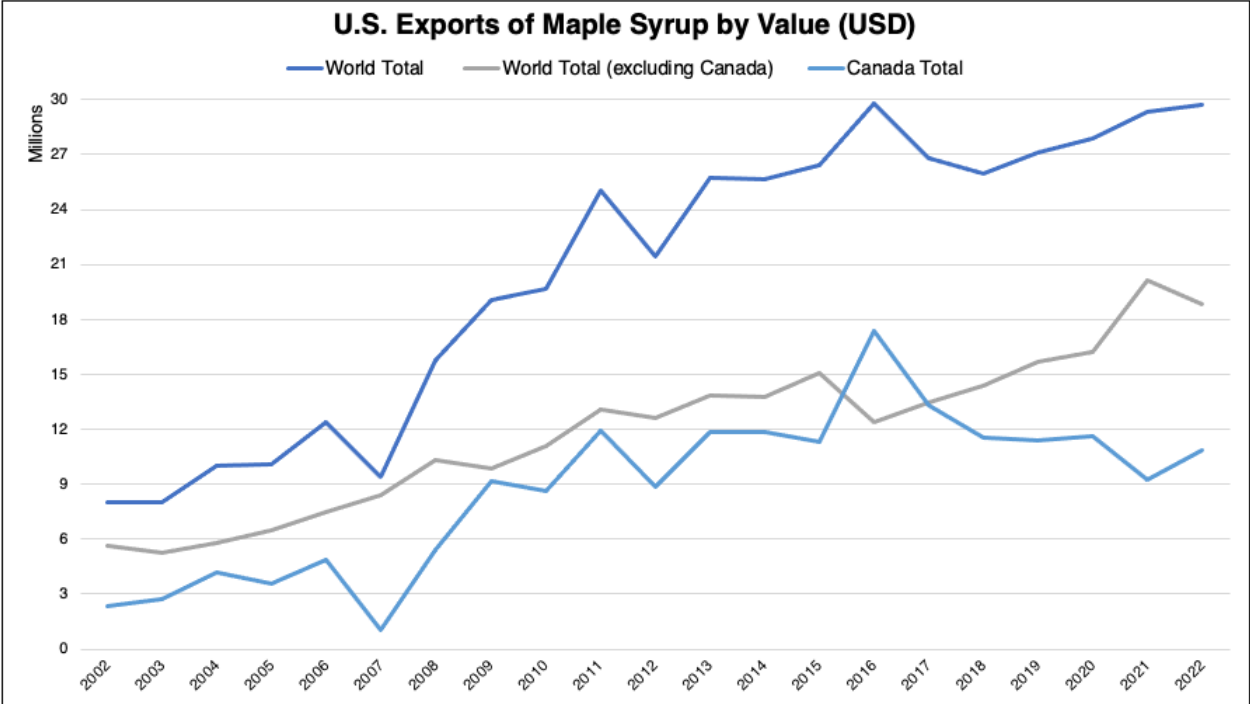


Figure 13: U.S. and Canadian total maple syrup exports by value, excluding the US and Canadian export from each other. “Value” here is considered trade value, not retail value. Measured in U.S. gallons from 2002 to 2022. (calculated using trade data from USATrade, UNComtrade, and StatCan)

Table 1, followed by Figures 14 and 15, introduce the top ten global regions for U.S. exports. The regions represent the individual countries that have imported U.S. maple syrup from 2002 – 2022 at any point totaling 1% or more of the total imported value to that region. Reviewing this, some insights emerge, leading among them is that the United States has a very strong market with South Korea and, namely, Japan, with the region carrying 35% of the 21-year total value and Japan carrying 90% of that region’s total over the same time period. Notable countries for U.S. maple syrup exports over the 21-year timeframe include Denmark, Australia, the United Emirate States (UAE), Panama, Taiwan, Hong Kong, Singapore, Philippines, Bahamas, the Dominican

Republic, and Columbia. Additionally, the Western Europe region is notable for having U.S. maple syrup exports, to some degree, across 11 countries. On the whole, in these regions, U.S. exports have been growing, save for Japan and S. Korea, where exports decreased from 2010-2021, with a spike seen in 2022. This decrease is likely linked to the United States dropping out of the Trans-Pacific Partnership (TPP) in 2017 (USTR, 2017). As of this writing, the United States faces a 17.5% tariff for maple syrup being exported to Japan (U.S. Dept. of Commerce, 2022b). Similarly, in Europe, the United States experiences an 8% tariff for maple syrup exported there (U.S. Dept. of Commerce, 2022a). In both Japan and Europe, Canada receives a 0% tariff for exporting their maple syrup (Gov. of Canada, 2023), which furthers its market advantage over the United States in those regions.

Table 1 - U.S. Exports of Maple Syrup in Percentage of Value Ranked by Region and Country, Excluding Exports to Canada

Rank	Region	% of World Total (excluding Canada)		Country	% of Region Total of countries listed	
		2022	*02-*22		2022	*02-*22
1	Japan & South Korea	25.4%	35.2%	Japan	88.8%	90.4%
				South Korea	11.2%	9.6%
2	Western Europe	11.7%	15.2%	Denmark	23.0%	28.3%
				England	13.6%	17.0%
				Norway	16.7%	15.9%
				Germany	17.7%	10.1%
				Belgium	20.2%	8.7%
				Spain	0.1%	6.1%
				Iceland	3.6%	3.3%
				Finland	2.5%	3.0%
				France	0.1%	2.4%
				Netherlands	1.7%	2.1%
				Italy	0.2%	1.0%
3	Oceania	5.8%	9.9%	Australia	47.3%	82.1%
				New Zealand	52.1%	17.4%
4	Middle East & North Africa (MENA)	10.3%	9.3%	U.A.E	33.9%	42.2%
				Saudi Arabia	18.0%	26.0%
				Israel	6.9%	6.5%
				Kuwait	11.0%	5.9%
				Jordan	4.6%	5.2%
				Qatar	13.4%	5.8%
				Bahrain	6.5%	3.0%
5	Mexico	21.9%	8.5%	-	-	-
6	Central America	5.7%	6.4%	Panama	7.3%	29.5%
				Costa Rica	31.7%	26.0%
				El Salvador	8.1%	19.9%
				Guatemala	32.5%	12.8%
				Nicaragua	14.9%	7.5%
7	Greater China	4.2%	4.4%	Taiwan	54.1%	52.8%
				Hong Kong	31.7%	35.4%
				China	10.8%	10.1%
8	South East Asia	6.3%	3.9%	Singapore	35.2%	45.1%
				Philippines	36.4%	40.4%
				Malaysia	3.0%	5.0%
				Vietnam	9.8%	3.9%
9	Caribbean	3.0%	2.6%	Bahamas	13.5%	33.5%
				Dominican Re	12.9%	28.8%
				Jamaica	3.9%	12.3%
				Trinidad & Tol	35.3%	9.3%
				Haiti	0.5%	3.0%
				Barbados	18.2%	4.5%
10	South America	2.9%	2.0%	Colombia	40.2%	38.5%
				Ecuador	13.6%	24.1%
				Chile	14.4%	15.1%
				Venezuela	0.0%	11.2%
				Peru	8.5%	5.1%
				Argentina	0.0%	2.0%
				Brazil	22.1%	3.0%

Table 1: U.S. exports of maple syrup in percentage of value ranked by region, with regional breakdown by country. Export totals exclude US trade to Canada. Countries were only included if they had 1% or over for the time period. The trade value was measured in U.S. Dollars from 2002 to 2022. (calculated using trade data from USATrade and UNComtrade)

Figure 14 - Total Value by Region (Top Five) of U.S. Exports of Maple Syrup, Excluding Exports to Canada

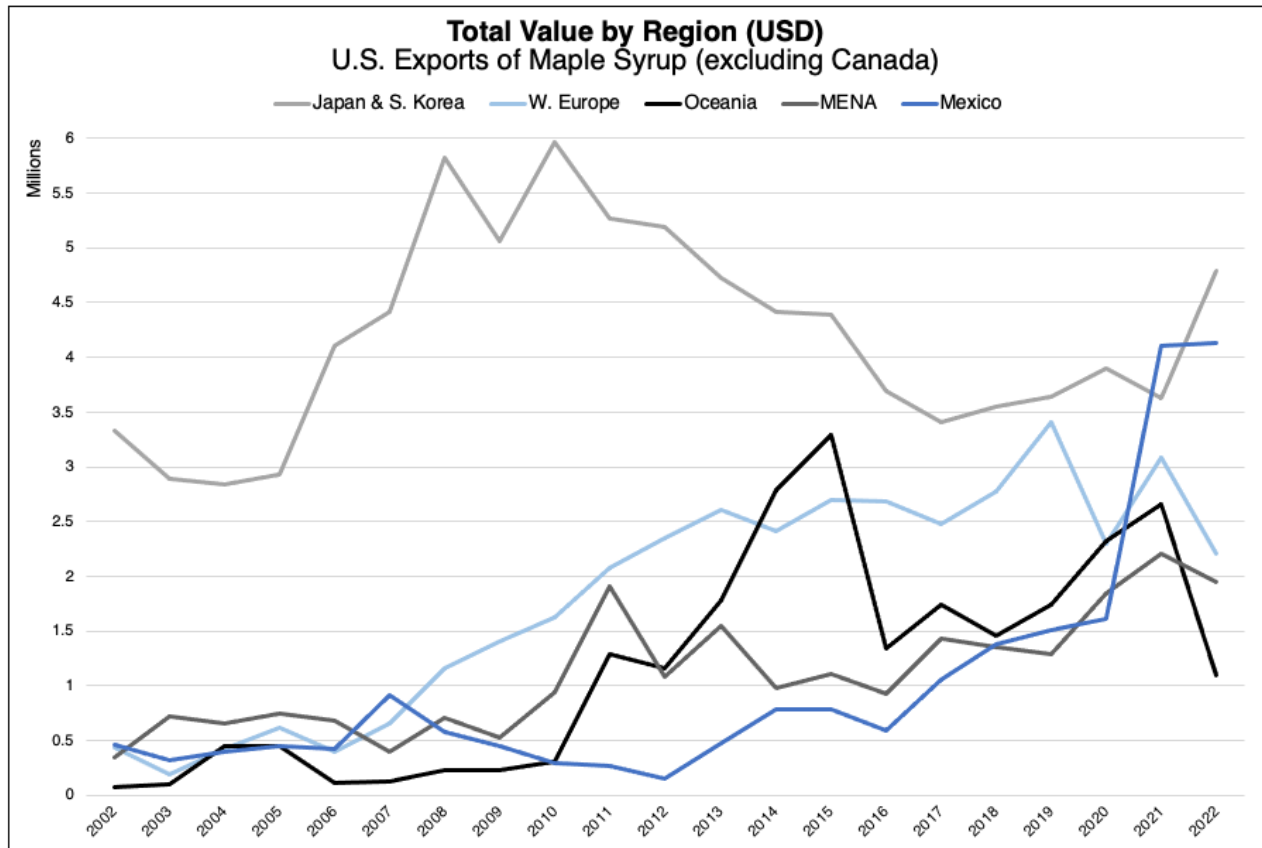


Figure 14: Total values of U.S. exports of maple syrup by region (top five of ten). Export totals exclude US trade to Canada. The trade value was measured in U.S. Dollars from 2002 to 2022. “Value” here is considered trade value, not retail value. (calculated using trade data from USATrade and UNComtrade)

Figure 15 - Total Value by Region (Bottom Five) of U.S. Exports of Maple Syrup, Excluding Exports to Canada

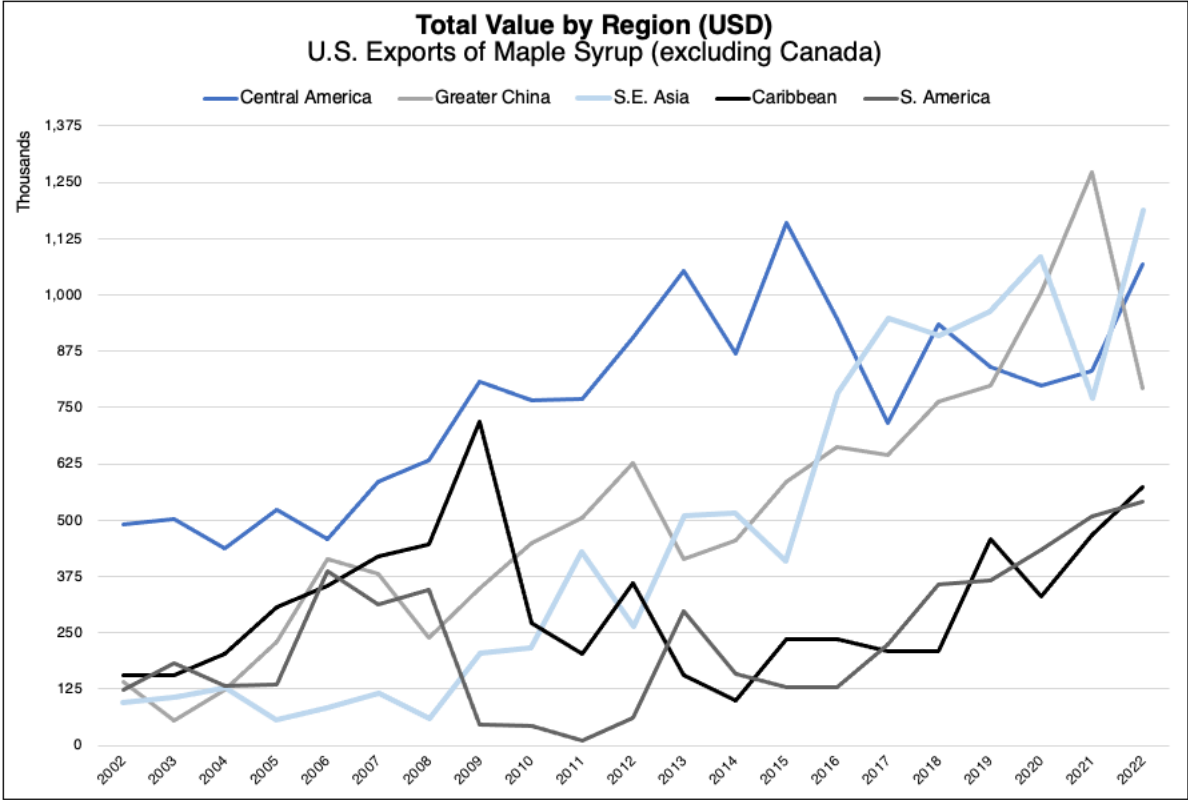


Figure 15: Total values of U.S. exports of maple syrup by region (bottom five of ten). Export totals exclude US trade to Canada. “Value” here is considered trade value, not retail value. The trade value was measured in U.S. Dollars from 2002 to 2022. (calculated using trade data from USATrade and UNComtrade)

Conclusion

The theme seen in this analysis is one where the United States continues to experience a surplus demand for maple syrup; Canada will continue to export to supply the growing U.S. consumption, which roughly accounts for 60% of the maple syrup consumed in the United States. The trend remains wherein the United States still increases its production year after year while domestic consumption greatly outpaces production. Thus, all the maple syrup made in the United States can be sold in the United

States. Showing that U.S. maple syrup still has an important and growing role in sweetening food and beverage in the United States.

Meanwhile, Canada's maple syrup production has nearly doubled while importing less from the United States and exporting more internationally. The increase of even more Canadian maple syrup into the global marketplace lays the groundwork for further expansion of Canadian global market share. It may also be an indicator that global markets will become more competitive for U.S. producers to export, but time will tell. As U.S. industry efforts continue to increase general consumption, development of immature domestic markets, and maple sugaring develops in new regions like the Pacific Northwest (Braun, 2022), these factors will likely drive further demand for maple syrup. To supply this demand, the question of where this maple syrup comes from is one for the producers of the United States to answer over the coming years.

CHAPTER 3: Research Methodology

A Qualitative Approach

The qualitative case study is defined as an examination of a confined or bounded system or unit, in context, involving both an in-depth examination and analysis in order to examine, reveal, or better understand a phenomenon or a social or cultural issue (Creswell and Creswell, 2022). According to Yin (2018), a case study design should be considered when: (a) the focus of the study is to answer “how” and “why” questions; (b) you cannot manipulate the behavior of those involved in the study; (c) you want to cover contextual conditions because you believe they are relevant to the phenomenon under study; or (d) the boundaries are not clear between the phenomenon and context. The specific type of case study is the “collective” type. This collective approach allows for the exploration of the differences within and between cases, with the goal being to replicate findings across cases (Yin, 2018).

Given the nature of the research questions and the relative novelty of this topic, this study called for a qualitative and collective case study of semi-structured interviews of industry export experts – the bounded population. As previously mentioned, due to the scarcity of academic literature and data on this topic, this qualitative approach was important to gather in-depth primary data to reveal the content and features of exporting maple syrup adopted by this industry’s SMEs. This data was recorded and transcribed from the semi-structured interviews with the subjects of this population. The transcriptions were coded and analyzed for trends and insights (see “Thematic Analysis” section for further detail), with the goal of these findings benefiting the industry at large. The following research methodology, interview protocol, and recruitment process were approved by the

University of Washington's institutional review board (IRB), Human Subjects Division, under the IRB identifier (STUDY00017111: U.S. Maple Syrup Export).

Purposeful Sampling

With the case study approach and using a bounded population, purposeful sampling is required to identify the cases needed in order to achieve thematic analysis and theoretical saturation, topics discussed in the *Data Analysis* section. For initial sampling and screening, a network sampling method was used. This method is used to obtain knowledge of potential cases from people who know people who meet research interests (Patton, 2014). Network sampling for this study came in the form of committee members directing the author toward industry professionals who were likely in the bounded population of SMEs that currently export or who have exported previously. Additionally, study subjects or those who were screened out would provide, unprompted, other potential SMEs to contact who fit the bounded population. From there, homogenous sampling was used to continue the study's interviews. This sampling method selects similar cases in order to describe a subgroup in depth (Patton, 2014). Homogenous sampling in the context of this study sought only those in the population who have the shared experience of export to produce detailed insights about this group. Given the relatively small, bounded population, estimated at less than 500 producers, fewer than 12 SMEs were expected to be interviewed. Ultimately, ten SMEs were interviewed.

Subject Recruitment

Evaluating the best method to contact SMEs unfamiliar with this study and its author, it was settled upon an outreach method of emailing and phone calls to introduce the study, what is being asked of its participants, and providing further contact information to follow up if interested in participating. This method of outreach required collecting and organizing potential subjects' publicly available contact information from their respective websites. After developing a list of 42 maple syrup producers, all theoretically within the bounded population, email contact began using the prepared document in Appendix 1. Emailing multiple contacts over multiple days was implemented to gain first contact with the subject. After a point of contact was established at the company and they had an interest in proceeding with the study, further screening would take place to confirm the subject fell within the bounded population. If this was confirmed, then the semi-structured interview was scheduled. A phone script was also developed to reach out via a company's telephone number. However, this method was not employed since the majority of subjects communicated via email, and all interviewed subjects responded via email. Recruitment efforts began to taper in the final weeks as the data collected was examined for saturation, meaning new interview data was ceasing to add to previously collected interview data. This recruitment period lasted approximately four months and was ongoing, with follow-up efforts for companies that were unresponsive or needed reminding of previous correspondence.

Research Setting

The setting for this research took place virtually over internet-connected video conferencing software (Zoom), telephone calls, email correspondence, and digital

documents. The research subjects were interviewed while, often, at their place of business during their normal Monday through Friday working hours, adjusted for differences in time zones. The interviewer conducted the interviews from their own office.

Data Collection

This study employed a qualitative approach to interview data collection in order to capture maple syrup producers' experiences exporting from the United States to better understand the challenges and opportunities currently at play. Qualitative interview methodology is important for exploring information on a factual and meaningful level, where the participant can provide knowledge through explicit descriptions, and the researcher can then analyze these responses and their meaning (Kvale and Brinkmann, 2015). By interviewing these producers that sell internationally but are at varying levels of scale and implementation, the similarities, differences, patterns, and insights across the subjects were captured. The method of data collection was semi-structured interviews of the subjects within the bounded population. This technique allows the researcher to study concepts from the perspective of the subjects, allows for collecting targeted data from multiple experiences regarding a producer's international selling process, and allows for the best use of research time during the study period (Glesne, 2016; Kvale and Brinkmann, 2015).

Interview Methodology

An open-ended, semi-structured interview protocol was used, which involved asking pre-determined questions under a central theme while leaving space for further questions if prompted by the subject's answers. This form of qualitative data places

emphasis on the subject's lived experiences and how that experience connects to the world around them (Miles and Huberman, 2020). Given this study involved multiple cases, a level of standardization was required across research instruments (i.e., interview questions and protocol) and their implementation to allow for comparable findings (Miles and Huberman, 2020). To that extent, the interview protocol remained the same for all participants across each case, with room for follow-up questions to better clarify and understand the experiences subjects shared. The interview protocol for this study was developed through a breakdown of the primary and secondary research questions (see Appendix 2 for Interview Question Framework). Experienced qualitative researchers and industry professionals advised on the development of the interview protocol to ensure proper structure, terminology, and verbiage were used.

These semi-structured interviews with company employees, owners, or founders were conducted one-on-one ranging in thirty- to eighty-minute sessions over video conferencing software or telephone. All the interviews were conducted by the primary investigator of this study, who was the sole interviewer. The interview questions composing the protocol focused on the information, statistics, and history of the company as it relates to international selling and the strategies, processes, challenges, and opportunities currently or previously experienced (see Appendix 3 for Interview Protocol). At the center of each interview was the desire to answer the research questions previously stated. The core interview protocol, with tangential and follow-up questions, sought to answer as many of those research questions as permitted by the interviewee. Notes were taken during these interviews to drill deeper into certain aspects of the conversation, keep track of information to revisit during the interview, as well as help guide the subsequent

analysis process (see Appendix 4). The interviews were audio recorded via the video conferencing software with the consent of the subject and later transcribed from those recordings. Because this research focuses on a case study supported by thematic analysis and not a linguistic or conversation analysis, it is permissible during transcription to remove repeated, thinking, or filler words, verbal segues, and cross digressions for clearer and more concise coding and analysis. Examples from the interviews that were not transcribed included “I see,” “you know,” “ah,” “um,” “like,” “kind of,” “oh,” “well,” “I mean,” “a..a..a..”, and “I would say.” Interview recordings and transcripts were stored on a password-protected drive and used solely for this study’s data analysis.

Generally, to understand the extent to which producers have sold internationally, subjects were asked about the countries they sold their maple products to and how it was sold, when it was sold, and in what quantities it was sold. This line of questioning included aspects of exported volume and revenue in a typical year, how these sales are developed, and to what degree are stakeholders or partners involved internationally. To understand producers’ challenges and opportunities selling maple products abroad, subjects were asked directly about the challenges they face and the opportunities they see while also asking what they would change and what is going well about the international selling process. If a subject answered a question from the interview script in another response, it was not reiterated to avoid spending time on a topic that was already discussed. Before beginning an interview with a subject, they were provided verbal information on the purpose of the interview and the expected interview process. All identifiable information on the subjects, including the associated company, was guaranteed to be omitted from the transcripts and this study’s manuscript to ensure anonymity.

Data Analysis

Background

Qualitative researchers tend to treat “text as a window into human experience” (Ryan and Bernard, 2000), and that text becomes the data that social scientists interpret. As such, the use of thematic analysis becomes a critical procedure for dealing with qualitative data. It involves identifying, analyzing, and reporting patterns, themes, and meanings within data for further analysis, description, and interpretation to uncover underlying meanings and perspectives across different data sets. Said in another way, the goal of thematic analysis is to arrive at a more nuanced understanding of some social phenomenon through understanding the process that tends to involve that phenomenon as well as the perceptions, values, and beliefs of people toward it (Glesne, 2016). As it applies to this research and qualitative case studies in general, one of the strengths of thematic analysis is its flexibility and adaptability as an analysis tool to reveal underlying complexities and explain why and where cases differ from a general pattern. It can be used with a range of data sources, including interviews and documents, and can be applied to both small and large data sets (Guest et al., 2011).

Dicks et al. (2005) write, “When anthropologists, sociologists, and others talk about the ‘richness’ of field data, this can be another way of expressing the sheer volume and complexity of information they collect and store.” Due to this large volume of rich data, the thematic analysis method effectively searches the data sets by segregating data into categories by labels, more commonly known as codes. The coded segments can then be analyzed in a variety of ways depending on the research question. It is important to note that although thematic analysis does, in fact, search for patterns and insights, it’s

expressly not about stipulating the norm, as is common with quantitative data and analysis (Glesne, 2016). As a result, the transferability of these findings should be handled with caution by the reader. From this perspective, the following sections contain the procedures used to analyze the data across all study cases.

Thematic Analysis

During the period of data collection, the case interviews were transcribed while also being reflected upon. Glesne (2016) notes that these reflection heuristics about the data are early-stage data analysis which enables a refined and relevant focus as the data collection proceeds. These reflections were captured in the qualitative tool known as the memo (Glaser and Strauss, 1967; see Appendix 5 for an example of a case memo from this study). These memos were kept for each case interview and led to some preliminary insights and early pattern recognition in the incoming data. As is common in qualitative research, data analysis was concurrent with data collection, as opposed to sequential data collection and then analysis. To organize data collection dates, locations, times, as well as the interviewee's encoded name, an interview list was developed to track pertinent interview metadata and establish the anonymity of the business entities and the interviewed subjects (see Table 2 Case Interview Record). Since anonymity was assured from the outset of the study, the encoded interviewee names in Table 2 represent the case subjects and have been used throughout the study.

Table 2 - Case Interview Record

Number	Interview Date	Encoded Interviewee	Date Transcribed	Recorded Time <i>Avg: 41 min</i>
1	2/14/23	<i>Producer1</i>	3/7/23 - 3/31/23	41 min
2	2/16/23	<i>Producer2</i>	3/7/23 - 4/5/23	40 min
3	2/24/23	<i>Producer3</i>	3/7/23 - 4/4/23	40 min
4	2/24/23	<i>Producer4</i>	3/7/23 - 3/30/23	38 min
5	3/1/23	<i>Producer5</i>	3/7/23 - 4/6/23	49 min
6	3/7/23	<i>Producer6</i>	3/7/23 - 4/12/23	58 min
7	3/8/23	<i>Producer7</i>	3/8/23 - 4/3/23	25 min
8	3/17/23	<i>Producer8</i>	3/27/23 - 4/2/23	33 min
9	4/7/23	<i>Producer9</i>	4/7/23 - 4/12/23	61 min
10	4/13/23	<i>Producer10</i>	4/13/23	28 min

After multiple read-throughs of the interview transcripts, initial summaries of the emerging patterns, ideas, concepts, and sentiments presented in each case were developed. This initial data analysis step is a form of data reduction involving summary and theme memos showing what is becoming apparent in the data (Miles and Huberman, 2020). These initial summaries during data collection informed the point of theoretical saturation for the study's bounded population. Theoretical saturation is a concept in qualitative research that refers to the point at which the collection of data is sufficient to fully understand and develop the themes or concepts of a study. When theoretical saturation is achieved, collecting additional data does not lead to new insights or understanding of the research phenomenon (Glaser and Strauss, 1967). Signs of saturation in the data appeared as redundant information across multiple subjects and a lack of discrepant viewpoints in new subjects expressed in the data as repeated use of tools or services, convergent sentiments or thoughts on export, and paralleling ideas of things to change in the process to name some examples.

Thematic Coding

Coding is used in qualitative research to link subject responses to patterns, processes, and themes, to build theories, and to make comparisons across data sets (Glesne, 2016). Opposed to a quantitative code, a qualitative code is a word or phrase that captures an attribute or summative essence for a portion of data (Saldaña, 2021). But Saldaña (2021) is quick to note that a code is not simply labeling but also linking the ideas across data sets. By putting pieces of data that exemplify the same descriptive or theoretical idea together into clumps of data labeled with a code, there begins to emerge a thematic organizational framework (Glesne, 2016). In this analysis, the inductive coding method was used to process the data. Inductive coding is an approach to code data that involves identifying the themes or patterns in data through a bottom-up approach, where the themes emerge from the data itself rather than being predetermined by the researcher; it's a flexible and iterative approach that allows researchers to identify new and unexpected themes or patterns in the data, which can lead to the development of novel theoretical frameworks (Thomas, 2006). Additionally, inductive coding is especially effective when used in conjunction with thematic analysis, which can provide a more comprehensive analysis of the data (Saldaña, 2021).

The initial case memos and field notes were used to inform the preliminary coding schema. Once some early themes and insights began to develop, uncategorized codes were categorized, labeled, described, and further parsed into subcategories to provide a more nuanced and systematized examination of the data. This categorization and organizing process developed into a codebook, which is a compilation of codes, descriptors, and examples (Saldaña, 2021). The codebook was continually refined

throughout the analysis process to ensure categories and subcategories accurately reflected the data and any redundancies were merged with existing codes or categories. Data analysis was aided by the qualitative analysis software ATLAS.ti (Version 23.1.0). ATLAS.ti was used in the organization of interview transcripts, memo writing, and the development, organization, and tracking of codes, categories, and themes.

Codes identified in the data were organized into categories and subcategories, which were then compared and combined to develop themes and concepts across the entire dataset. As a result, the coding process progressed from specific codes to general assertions and theories about the data as the codes were used across the case data sets (Saldaña, 2021). This process allowed for pattern coding, where summary codes were grouped into smaller constructs to identify themes and explanations present in the data. To ensure the consistent application of codes throughout the data, code labels and descriptors were developed and referenced during the coding process. Miles and Huberman (2020) also support the use of pattern coding to identify themes and concepts in qualitative data. Direct interpretation will be used to develop naturalistic generalizations. Finally, a representation of these findings will be presented with in-depth descriptions accompanied by tables, where appropriate (Creswell, 2007).

Chapter 4 presents the categories and subcategories identified in the data and identifies patterns across the different cases and export experiences. These findings are supported by illustrative quotes from the case subjects.

Data Quality and Study Limitations

Quality

These information-rich cases generated qualitative data, which, in turn, produced patterns, themes, and insights from which in-depth meaning was drawn and analyzed. This data and its findings do not serve as an internationalization “playbook” for non-exporting SMEs but more a “tour” on the topic and experiences of internationalization and the opportunities and challenges SME maple producers currently face. As always, with qualitative data, the limitation becomes the extent to which the findings can be generalized. As a result, the transferability of these findings must be handled with caution. However, some common strategies for promoting the study’s validity and reliability have been employed.

The strategies used in this study are as follows and come from Merriam (2015): a) Adequate engagement in data collection, meaning there was adequate time spent collecting data such that the data became “saturated”- this involved seeking discrepant or negative cases; b) Stated researcher’s position meaning to take critical self-reflection by the researcher regarding assumptions, worldview, biases, theoretical orientation, and relationship to the study that may have affected the investigation (see “Positionality Statement” below); c) Peer review of this thesis which took the form of discussion of my findings with this study’s committee and other colleagues; d) Establishing an audit trail which in this study takes the form of detailing the methods, procedures, and decision points carrying out the study; and finally e) Utilizing maximum variation meaning purposefully sought variation in the sample selection to allow for a greater range of application of these findings.

Limitations

Interviewing people representing maple syrup-producing SMEs and who were potentially responsible for creating and implementing processes for selling internationally naturally presented limitations and challenges. As representatives of private businesses which are in competition with one another, interviewed subjects may have felt constricted in their ability to respond to interview questions with a full and honest account in an effort to preserve proprietary information. While anonymity was assured before the interview began, some limitations may be present in responses from the producers. Furthermore, these producers may have a positive or negative bias in the perception of their experience or strategies and less willingness to acknowledge and display potential faults.

Additionally, recruiting subjects was challenging. Finding producers who did fall into the bounded population and connecting with them was very hit or miss. What compounded this challenge was many producers during the time of year this research was conducted were exceedingly busy preparing for what became an early sugaring season in the Northeast. Moreover, the people with the experience and knowledge this study sought were often the busiest within the SMEs, with large workloads and responsibilities of managing the operation of a business. Potential subjects for this study were contacted a minimum of three times or until a response was received. Some producers expressed they did not have the capacity to participate in the research. This resulted in fewer interviews than initially hoped for but still represented a saturated sample at the end of the analysis. A longer subject recruitment period or a shift of the recruitment to the off-season could have increased the likelihood of producers being able to participate in interviews. Finally, due to this study's bounded population, the case research did not focus on large publicly-traded maple syrup producers, of which there are

two with U.S. operations, Lantic, Inc. and B&G Foods. Future studies could incorporate those company's data with the potential for generalizable findings.

Positionality Statement

The primary investigator (Blaze Burke, referred to as "the author") conducted this master's thesis research indirectly from the support and guidance of the USDA's Acer Access and Development Program (Acer) awarded to the University of Washington's "Increasing Exports of U.S. Maple Products" proposal under Acer's "Market Development and Promotion" project category. The author was partially funded with this grant, and the influence of the Acer grant proposal has influenced much of this research's direction and focus. The author personally comes from a professional background with a history of working in specialty food sales and distribution, as well as experience importing and exporting products internationally. This first-hand experience gives the author industry insight, albeit limited, into specialty food products and international sales, logistics, and marketing. Additionally, the author is a white male conducting research interviews in a white-male-dominated industry. These aspects give the author a specific lens he will default to when looking at this data and conducting these interviews. As a researcher, the author was able to access the necessary resources to conduct the research and is aware of potential biases he may bring due to my racial and cultural identity. The author recognizes the privilege of having access to certain resources and which gives him the ability to pursue his research. This statement serves as a glimpse of the author's conscious and unconscious bias in conducting this research so that future studies can interpret these findings accordingly.

Other Methods Attempted

During the preliminary research-design phase for this study, the initial methodology and data source was intended to be a quantitative analysis of survey data from importers around the globe. A survey was created, and a publication was selected which had a target audience of foreign importers of American food and beverage. The publication's subscribers were estimated to be around 20,000, and they would receive both a digital and printed copy of the quarterly magazine. This subscriber list was thought to garner hundreds of survey responses from the target population of foreign importers over one year. The importer survey was created using Qualtrics and was accessible via a QR code found on the insert (see Appendix 6). As an incentive for completing the survey, any participant would receive a sample of maple syrup in person or mailed. The survey was published in four issues of the food and beverage publication and distributed in person at two international food trade shows. After four magazines and two trade shows, there were six total survey responses, of which four were usable. It is conjecture, but the number of importer responses likely reflects this population's demographics to some extent, in which few deal with maple syrup and have the time and ability to respond to a survey about an esoteric American product. At this point, the study design and path to collecting data needed to be reassessed, and the few survey responses were the impetus for this qualitative study focusing on U.S. maple syrup producers.

CHAPTER 4: Findings

Introduction

This chapter presents the findings from the subject interviews with the ten U.S. maple syrup producers, organized by the study's research questions. Each section presents the research question supported by the coding category, the connected themes and subthemes identified from the data, and subject quotes supporting these findings. In Section A and Section B, subjects' export demographics and export dynamics are discussed using tables and graphs showing patterns, trends, and comparable self-reported statistics. These sections are supported by noteworthy sentiments and insights from subject interview data. In Section C and Section D, subjects' perceived export challenges and opportunities are discussed using tables to introduce the common themes found in each category, as well as the main themes on which this study focuses. The six main themes within the Challenges and Opportunity categories, three in each category, are supported by sub-themes and highlighted with subject quotes. Finally, in Section E, this study's fifth research question is addressed, serving as the conclusion of this chapter, as it is supported by Sections A through D as well as the trade analysis found in Chapter 2.

Before continuing, an important comment regarding the interview data used in this chapter and qualitative research in general. The interview data is the primary source of data examined. What the producers said in their respective interviews at the time of the interview, with the information and experience readily available, is what this chapter bases its findings on. An example of where there may be conflicting information based on interview data is when a producer may not have said a certain country they export to but

later seeing they have a product sold in that country. To follow up with a producer on that instance was beyond the scope of this study but would have called into question their recollection when the producer may, in fact, no longer export in that country or a customer sells into that country without the producer being aware. For that reason, the interview data is analyzed as stated.

A. Category of “Export Demographics” addressing Research Question 1:

To what extent have U.S. maple syrup SMEs sold their products internationally?

Analysis

This section deals with this study’s subjects’ demographics, self-reported export statistics, and noteworthy sentiments and insights relating to the export demographics category. Subject demographics were generated from interview data and publicly available information about the subject’s respective company. The subject’s self-reported export statistics and the remaining information presented in this chapter were generated only from interview data. This section’s information will aid with interpretation and a fuller understanding in the remaining sections of this chapter.

First, some introductory subject demographics. Five males and five females were interviewed from ten different U.S. maple syrup-producing companies. Their positions ranged from the company’s founder-owners to sales and operation executives. Further demographics have been generalized to keep subjects anonymous while remaining germane to the study’s findings.

Table 3 captures the subject’s self-reported export statistics for the number of years exporting and the volume in a typical year, organized by the number of years

exporting. A caveat to these assembled statistics is the proprietary nature of this information. When asked to provide a response to a typical yearly volume, there was often hesitation in providing an answer. These two questions often needed a disclaimer that an option for answering could be as a percent of the total. However, some responses were given in differing units which could not be elaborated upon without divulging proprietary information about total company volume and revenue. This table develops cohorts of subjects based on the number of years exporting. This table also shows the regularity of export orders. Irregular exports were expressed with comments such as “sporadic,” “orders every once in a while,” or ordered a “couple of times a year.” Regular exports were expressed with comments such as “shipping a few times a month” or “regular orders.”

In Table 3, the column titled "Has Sent a Pallet" refers to the producer having sent at least one pallet of product abroad. A pallet is a flat transport structure typically made of wood with product stacked on top. In this context, it refers to the significant amount of product sold at one time, shipped internationally, and delivered using heavy-duty means, as opposed to single boxes being shipped and delivered by hand or light-duty means. This unit of measure was expressed as a “significant” amount by several producers but is best encapsulated by Producer3’s comment, *“We’ve tried to do some exporting, I don’t know if we have successfully sold any significant quantities. If we have, I can’t remember them, so it can’t be that notable.”* When asked what “significant” meant, Producer3 responded, *“If you’re sending at least a pallet.”*

Table 3 - Self-Reported Export Statistics

Subject	Years in Operation	Years Exporting	Typical Volume	Has Sent a Pallet*	Irregular or Regular Exports
<i>Producer2, Producer3, Producer4</i>	<i>< 20</i>	<i>< 10</i>	<i>< 10%</i>	<i>Y</i>	<i>Regular</i>
			<i>< 5,000lbs</i>	<i>Y</i>	<i>Irregular</i>
			<i>< 5%</i>	<i>Y+</i>	<i>Irregular</i>
<i>Producer5, Producer6, Producer8</i>		<i>10-20</i>	<i>0.01%</i>	<i>N</i>	<i>Regular</i>
			<i>< 10%</i>	<i>Y</i>	<i>Irregular</i>
			<i>1.5%</i>	<i>Y</i>	<i>Irregular</i>
<i>Producer1, Producer7, Producer9, Producer10</i>	<i>20+</i>	<i>20+</i>	<i>< 5%</i>	<i>Y+</i>	<i>Regular</i>
			<i>0.5%</i>	<i>Y</i>	<i>Irregular</i>
			<i>< 10%</i>	<i>Y+</i>	<i>Regular</i>
			<i>< 2%</i>	<i>Y+</i>	<i>Irregular</i>

Table 3: *In the "Has Sent a Pallet" column, "Y" signifies yes the producer has sent a pallet, "N" signifies no they have not, and "Y+" signifies they have shipped multiple orders of pallet quantities.

Export Demographics - Noteworthy Sentiments and Insights

i. An Individualized Definition of Export: Throughout the data, it becomes apparent producers have individualized definitions of different degrees for various practices and entities. None more so than a perceived definition of export. The sentiment was of those who export and those who don't. This sentiment seemed to hinge on the matter of the volume shipped for a given order, which is captured in the "has sent a pallet" comment for Table 3. The individualized export definition first appeared with Producer3 saying:

"I mean, you can ship a package through UPS, but that's not exporting." -Producer3

This definition was then opposed by Producer5, which exclusively uses parcels to ship internationally to both end consumers and wholesalers. Producer5 considers what they are doing as "export," which is supported by their statement:

"Pretty much all of our export, even still, is direct consumer, and under 15 pounds. We're not talking about container loads...so it's almost entirely small package shipping." -Producer5

Producer5 acknowledges they "export" small quantities, and so their definition does consider quantity as a function of export. Yet, there may be a question on the difference between a large "pallet-sized" order being exported irregularly or a more regular order but in parcel-sized "exports." To add more nuance to the individualized definition, Producer1 classifies the difference between export and domestic sales, basing the definition on the paperwork process and origin of payment. When asked about their definition of export as it related to a customer who buys their product in the United States but exports it abroad, Producer1 responds:

"I treat that as domestic sales because, on my end, I don't have to do anything extra. So it's domestic." Saying later, "If I'm actually helping fill out paperwork for export, then it's exporting, and a lot of times those particular customer's payments are coming from overseas banks or getting it wired in. They tend to go together. I don't

have any export customers that are asking me to export and still paying off from the US bank. I'm sure those customers are out there. I just don't currently have any like that. But if I'm filling out the paperwork and helping to talk to the export transporter and to make sure that the paperwork is right, then that's an 'export' for us." - Producer1

This classification is cleanly divided between “export” and “domestic sales.” Yet, there is a conflict of self-defined export based on Producer1’s process and payment scenario, and the reality of their product is going to an international distributor to be an actual export to another country. These individualized definitions were heard throughout the interviews, with the commonality of “export” being seen as the sale and shipment of product to an international customer. That will serve as the baseline definition for the remainder of this study, despite any conflict within other individualized definitions or outside criteria.

ii. Export Makes Up Small Amounts of Overall Business: Examining the typical volume in Table 3, exported product makes up a small percentage of overall product sold for these subjects. There were several sentiments of the exported product quantities being “minimal,” or such a small amount, or such a long time ago that it was easily forgotten. In reference to Producer7’s largest shipment they had exported to date:

“Somehow somebody got my name and bought a bunch of quarts or something, and we're able to ship them out,” later saying, “It had to of been ten years ago. I honestly forget what country it went to. It was just a one-time deal. I don't even know how we end up getting that.” -Producer7

Not only does this comment showcase the length of time that has passed to make remembering the details of such a notable export order fuzzy, but it shows how infrequent a sizeable order will be placed with some producers. Producer3 echos this sentiment:

“We've tried to do some exporting. I don't know if we have successfully sold any significant quantities. If we have, I can't remember them, so it can't be that notable.” -Producer3

The quantity of an order and the cadence at which those orders are placed clearly play a role in the prominence a producer's export business has in their mindset. As a counter-example of the irregularity of orders, Producer1's progression from irregular export to regular export was expressed in this way:

"They order once or twice, and it either didn't sell well for them or another company all of a sudden starts ordering it... I've got a couple of customers that still buy sporadically in Japan. I've got one in Israel that we sell to. It's a once-a-year kind of order. [A customer ordered,] going to China, and they've just reordered this last week, and they hadn't ordered for over a year because of Covid problems... Otherwise, that's a once-a-month order." -Producer1

These comments indicate that export occupies only a small amount of a producer's overall business, even with regular export orders. Extending that idea to the sentiment that export, outside of "significant" or "notable" quantities, occupies only a small amount of a producer's memory, concluding that export activities may not be considered top of mind for these subjects until more regular export orders occur.

B. Category of "Export Dynamics" addressing Research Question 2:

How have SMEs conducted export, if at all?

- What products have the identified SMEs exported?*
- Who are the types of customers buying their products?*
- Where have the identified SMEs exported?*
- How have they exported their products?*

Analysis

This section deals with this study's subjects' export dynamics. This category was the most robust category developed from the data; as such, it contained many sub-themes and codes. The data was parsed into the type of maple syrup products and packaging types that have been exported, the types of customers buying these products, the countries and regions the subjects have exported to, and the services used for transporting those products. Subject export dynamics were generated solely from interview data.

Table 4 introduces the products and the packaging types exported by the subjects. Maple Syrup Type is broken into three categories: "Pure," which is 100% pure maple syrup; "Value Added," which is a pure maple-syrup-based product with flavor, infusion, or enhancement of some kind; and "Other," which include products such as granulated maple sugar, maple candy, or other product which are not liquid syrup but feature maple syrup prominently. Packaging Type is broken into two categories: "Retail," which is a package suitable for resale and is often the container displayed for consumers to purchase, and "Bulk," which is a large format container often used to convey value and economy for customers needing to add maple to another product like in a restaurant or manufacturing setting. "Private label" appeared in the data as a service producers provided to customers and, in the context of this study, falls into the category of "Retail" since all private label mentioned was bound for retail settings. Across the captured information, the most notable is that all ten subjects export products that they consider to be in retail packaging.

Table 4 – Maple Syrup Product Types and Packaging Types Exported

Subject	Years Exporting	Maple Syrup Type			Packaging Type	
		Pure	Value Added*	Other**	Retail	Bulk
Producer2, Producer3, Producer4	< 10	x		x	x	x
		x	x		x	
		x	x		x	
Producer5, Producer6, Producer8	10-20		x	x	x	
		x	x	x	x	x
			x		x	x
Producer1, Producer7, Producer9, Producer10	20+	x		x	x	
		x		x	x	x
		x	x	x	x	x
		x	x	x	x	x
Total Count		8	7	7	10	6

*Value-added includes flavored, enhanced, or infused pure maple syrup

**Other includes granulated maple sugar, maple candy, and other products with maple syrup prominently featured

Product-type insights are combined with customer-type insights following Table 6. There were several comments about packaging types and the range for which each producer exported product-package, with individualized definitions emerging of what “bulk” represented to them:

“It is retail packaging, and it's also bulk... so it's from half-pints to 55-gallon drums.” -Producer10

“...just palletized pre-labeled bottles, like resale retail...Typically the bulk we get is 5- to 10 gallons. Our range, we do 2oz bottles to 5-gallon pails.” -Producer2

“For the most part, a bulk customer is a gallon container or bigger.” -Producer1

“...they rebottled themselves. We sent to them in bulk containers, and then they put into fancy little bottles and sold in their shops.” -Producer3

These comments provide additional insight into some of the product-packaging connections with customer use, which will be explored later. “Bulk” definitions included the most information about how a customer used the product, typically being used in food service, food manufacturing, or being repackaged abroad for retail.

Table 5 captures the eight customer types which the subjects at various points in the interview mention. The customer types defined in the context of the interviews are:

- Direct to Consumer (DTC): Products sold directly to the end consumers without involving sale intermediaries. In the international sales context, this typically means consumer orders are placed with the producer via their website.
- Wholesaler: A business that purchases products in bulk from producers and sells them in smaller quantities to retailers or other businesses. “Online” supports this business model, but online sale transactions are happening via the Internet versus a physical location.
- Distributor: An entity that acts as an intermediary between manufacturers or wholesalers and retailers. Distributors purchase products in bulk and distribute them to retailers or end customers. Producer1 shared about their experience with this customer type “...we're dealing with them through an intermediary. Someone that exports and finds a product. The customer comes to them and says, “Hey, this is what we're looking for,” and they found us.”
- Importer and Exporter: A company or individual involved in the sale and shipment of goods or products from one country to another. These categories became muddled with “international” wholesalers or distributors and were combined with the associated customer type whenever appropriate.
- Retailer: A business that sells products directly to end consumers, typically in small quantities and at a higher price than the wholesale price they purchased the product for. “Online” supports this business model, but online sale transactions are happening via the Internet versus a physical location.
- Manufacturer: A company that produces a food product from different ingredients.

- Food Service: A sector of the industry that involves the preparation, sale, and delivery of ready-to-eat food and beverages to customers in settings such as restaurants, cafes, catering businesses, or institutions.

Table 5 – International Customer Types

Subject	Years Exporting	DTC	Wholesaler	Distributor	Physical Retailer	Online Retailer	Manufacturer	Online Wholesaler	Food Service
			Importer - Exporter						
<i>Producer2, Producer3, Producer4</i>	< 10	x					x		
		x	x			x		x	
		x	x			x			x
<i>Producer5, Producer6, Producer8</i>	10-20	x	x						
		x		x		x			x
		x		x		x			x
<i>Producer1, Producer7, Producer9, Producer10</i>	20+	x	x					x	
			x	x	x		x		x
		x	x		x		x		
			x	x	x	x	x		
Total Count		8	7	4	4	4	4	3	3

Initially, the patterns of customer types that emerged seemed closely tied to the cohort of experience, where less than five years of export experience correlated with using online sales channels of DTC, online wholesaler, and online retailer; 20+ years of export experience correlated with more wholesaler, distributor, physical retailer, and manufacturing customer types; and 25+ years correlated with the most customer types. DTC customers were the most prominent type, with Producer1 not mentioning DTC as an international customer type and Producer9 specifically not pursuing that customer type, citing it was not a part of their business model. Connecting product and customer types, Producer10 had an interesting insight about maple sugar and its use for food manufacturers when explaining their breakdown of products exported:

“It is mostly syrup; there are the occasional sales of sugar...the customer has to have a formulation that requires maple flavor and can't handle additional moisture.”
-Producer10

Furthering this connection of customer with product and packaging type, Producer1 explains bulk packaged products and the customer they see order bulk product as well as the connection from bulk to retail:

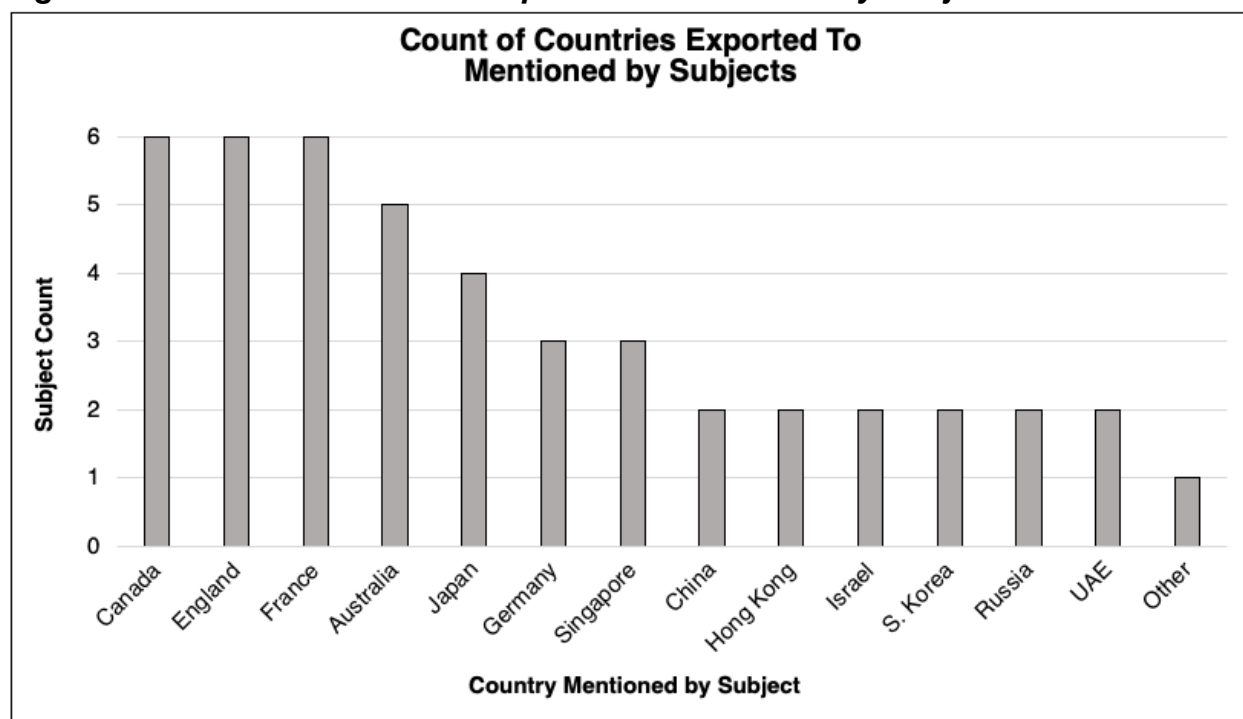
“For the most part, a bulk customer is a gallon container or bigger, and that's how I describe them, and they tend to be a manufacturer...They're going to use it as an ingredient, or they're going to add it to another product and repackage it and sell it. Where the other, the private label or the retail kind of customers, are buying products that are what you and I would consider going to the grocery store shelf and buying. It's prepackaged; it's ready to resell. On some of it, we've translated labels for people, and most of the time, they just get sent with our label on it.” -Producer1

Table 6 and Figure 16 capture the countries and regions subjects have mentioned they exported to. In Table 6, a correlation can be seen between years of export experience and the number of countries/regions exported to.

Table 6 – Countries and Regions Sold Into with Total Counts and Named Countries

Subject	Years Exporting	Countries or Regions Sold Into	
		Total Count from Data <i>*specifically mentioned</i>	Specifically Named from Data
<i>Producer2, Producer3, Producer4</i>	< 10	2	Canada, Italy
		4	Australia, England, Netherlands, Scotland
		5	Brazil, China, England, France, Russia
<i>Producer5, Producer6, Producer8</i>	10-20	6	Australia, Canada, France, Hong Kong, Singapore, Vietnam
		7	Australia, Canada, England, <i>Europe</i> , France, New Zealand, Singapore
		8	Australia, Austria, Canada, England, <i>Europe</i> , France, Japan, Switzerland
<i>Producer1, Producer7, Producer9, Producer10</i>	20+	5	Asia, Canada, France, Germany, Israel
		6	Canada, England, Germany, Japan, S.Korea, Mexico
		11	China, United Arab Emirates, England, <i>Europe</i> , Hong Kong, Israel, Japan, <i>Mediterranean, Middle East</i> , Russia, Spain
		35*	Cambodia, <i>Central America</i> , Columbia, United Arab Emirates, Ecuador, <i>Europe</i> , Germany, Japan, S.Korea, Mexico, <i>Middle East</i> , Singapore, <i>South America</i> , Thailand

Figure 16 – Count of Countries Exported to Mentioned by Subjects



From the data, some limited yet specific product-country connections emerge.

Producer4 saw a premium being charged for their product in Russia:

“In Russia, anything that’s “Made in the USA” is known for being high quality. So they’re able to charge a premium for syrup in their stores.” -Producer4

Maple sugar showed some notable connections, with Producer1 mentioning a connection between Hong Kong and maple sugar and Producer9 and Producer7 both expressing similar connections but instead to Japan and France, respectively:

“...Japan buys a lot of maple sugar. They buy more maple sugar than they buy maple syrup, and that is not true of any other country that we sell to. Japan is the only one.” -Producer9

“When we ship to France, it’s always a lot of candy. It’s always candy or sugar. The Asian market that we’ve shipped a little bit to, they’re always granulated sugar.” -Producer7

Table 7 captures what subjects mentioned as the transportation services they engaged with when exporting their product. The three transportation service types defined in the context of the interviews are:

- Freight Forwarding: When the producer engages directly with a logistics company to coordinate the transportation of their product from their facility to the customer.
- Broker Logistics: When the producer engages an agent or company to manage the movement of their product and act as an intermediary between shippers, carriers, and customs officials.
- Commercial Carriers: When the producer ships their product via a transportation service and is responsible for the shipping paperwork (examples mentioned include DHL, FedEx, UPS, and USPS).

Table 7 – Transportation Services Engaged

Subject	Years Exporting	Commercial Carrier	Freight Forwarding	Logistics Broker
<i>Producer2, Producer3, Producer4</i>	< 10	x		x
		x	x	
		x	x	
<i>Producer5, Producer6, Producer8</i>	10-20	x		
		x		
		x	x	x
<i>Producer1, Producer7, Producer9, Producer10</i>	20+	x		
			x	x
		x	x	x
			x	x
Total Count		8	6	5

A notable situation among the producer using freight forwarding seemed to be where a customer abroad took control of the product within the United States, and all the producer needed to do was get the order to the customer’s desired U.S. port. Producer1 describes

the situation where an exporting customer takes control of the shipment to the final destination:

“We only have to ship it to, I think it's Washington state we're shipping it to, and they take care of it from there.” -Producer1

Much of the data supported commercial carriers being primarily used to ship product internationally, where time and perceived effort may be lower to ship a smaller quantity of product to an international customer. The cohort of 20+ years of exporting experience also seems to shift away from the use of commercial carriers to export, with their transportation means being primarily on freight forwarding and logistics brokers.

Export Dynamics - Noteworthy Sentiments and Insights

i. End Consumer Demographics: This was a notable insight due to the lack of information producers had about their end users. When asked about their end consumers or how their products were being used abroad, the majority of producers responded with speculations on how the international consumer uses their product:

*“No, never really done any research. I've always assumed it's being consumed as an esoteric American product. There aren't very many of them. So maple is pretty good when you think about wanting to consume something that's all-American.”
-Producer10*

“I don't. I'm assuming they are putting it on biscuits, pancakes, or French toast. [But] not fully. I know one that likes it in tea and coffee. I don't have a lot of follow-up with the international consumer.” – Producer4

The “esoteric American” product being used as a breakfast sweetener was a common assumption. When asked about consumers abroad using syrup as a breakfast sweetener, Producer2 provided some insight as to why:

*“Yep. That's your main answer. Not a lot of people think outside that box yet.”
-Producer2*

Perceived international consumer uses didn't fluctuate much beyond an "esoteric American breakfast sweetener." However, a few producers provided insight into international consumer demographics. One being mentioned several times was a measure of affluence in the population, where a customer could afford to buy a relatively expensive yet healthier sweetener:

"...affluent areas are markets that are interested. I think it's partly because everybody is using sweeteners, and everybody is trying to be a little bit healthier."
-Producer1

"My thought was finding countries that have a middle or a wealthy class to create enough turns in the retail. Because maple syrup is expensive... Looking at that type of wealth distribution, I thought Australia's probably pretty similar to us. Japan. Parts of China that I think would do all right. I hate to look at it that way. I'd like to provide my product to anybody who wants it, but it's a pricey product." -Producer4

Producer9 provided the nuance in the consumer demographic needed to put succinctly why an "esoteric American product" might find success abroad:

"Your two best chances for success in an international market, I found, is there has to be some affluence in the local population, and there has to be a good expatriate community. I know that from living abroad." -Producer9

Those factors of affluence, desire for a healthier sweetener, and American expatriates are the link tying together several elements of what producers were saying about end consumer use and demographics.

ii. Reactive vs. Proactive International Sales Position: From the data, this sentiment was overtly expressed as a strategy, and it was implied by recounting situations or sentiments expressed about sales efforts and customer acquisition. This dichotomy of proactive or reactive sales hinges on whether a producer actively pursued international sales with a plan or if they passively acquired international customers. The reactive position was the most common situation producers consciously or unconsciously put

themselves in. Taking that idea one step further, it appears to be the default position producers find themselves in when starting international sales. Producer8 recounts how the founder started the business and began sales abroad:

“But at the time, [the founder] was just doing anything that came in front of [the founder].” Later saying, *“We would sell anything that [international customers] wanted to buy.”* -Producer8

The majority of producers expressed the active development of their international sales being nonexistent and that international customers “came to us” was a common refrain. A unique finding was Producer10 intentionally choosing to be reactive to international sales. Producer10 expresses why they intentionally became reactive:

“...the time since 2004, it has all been reactive, and that's because those proactive initiatives did not pan out well.” Later elaborating on the intentional reactive position, *“Because it is an area we aren't proactive in. We have actively filtered the customers that we work with to those that have existing domestic freight forwarding relationships.”* -Producer10

The only proactive sales position seen among the cases was with Producer9. They speak to the process they took to become proactive in developing international sales:

“...what we did was we sat down, about five years ago, and just sort of mapped it out and said, ‘these are places, we think maybe work.’ And then we looked at export data on the websites, broke those down, added a few, jostled them around, then decided on some based on...GDP per capita and ex-pat population. Then we weeded those down.” -Producer9

However, other producers are considering a more proactive strategy. Producer5 expressed a future plan for a more distributor-friendly business model and product configuration for developing more sales via the distributor. Producer2 captured the sentiment of wanting to become proactive, yet the barriers to transitioning from reactive to proactive are many:

“I wish we had more information on abroad. It is definitely one of our biggest goals to keep pushing in that direction. What our plan is currently is to kind of target some

areas and really make sure we have our checklist of what we need to do for those labeling requirements and shipping requirements, and really hone in our knowledge there and then target that, 'Okay, we are open for business.'” -Producer2

C. Category of “Challenges and Bottlenecks” addressing Research Question 3:

What challenges and bottlenecks are perceived by each maple-syrup SME exporting or not exporting?

Analysis

This section deals with the perceptions and experiences of the subjects as it relates to export obstacles, hindrances, and constraints. Appreciating the chagrin of Producer3, this section could have an alternative heading of why “the export experience is awful,” and in fact, this section captures the subjects’ expressions of frustration and reasons why they believe the export experience is “awful.” To uncover and understand these experiences, subjects were specifically asked in each interview about the challenges of export. These overt expressions were easily coded in the data. However, throughout the subject interviews, implied challenges were unstated, but viewed within the context of what was said become apparent. Instances of these implied challenges include market factors, lacking experience or knowledge in a certain area, and domestic prioritization.

Table 8 introduces the themes developed from the data pertaining to the category of “Challenges and Bottlenecks.” The three prevailing themes of this category and support the main findings of this study will be explored individually, with notable sentiments and insights across all category themes following. The data in this category was decidedly diverse in perspective and produced many sub-themes; however, nine themes were aggregated from the different sub-themes. In Table 8, the top nine most common themes

are shown connected to which subject expressed challenges or bottlenecks relating to that theme. The nine themes with their definitions as it relates to this study are:

- **Competition:** In the setting of business, wherein a contest between several firms selling similar goods. For this study, the context includes maple syrup from Canada and other U.S. maple syrup producers.
- **Market Factors:** The various elements of economic trends or consumer behavior that influence the performance of the maple syrup market.
- **Return on Investment (ROI):** A measure of profitability from the costs associated with the investment of time, money, or other resources.
- **Customer Education:** The process of providing information, resources, and training to customers in order to enhance their understanding of a product or service.
- **Domestic Prioritization:** Assigning higher importance or preference to the U.S. market or business operations.
- **Lack of Knowledge or Experience:** Where the subjects expressed a lack of sufficient understanding or expertise in processes associated with export, limiting their ability or effectiveness in related activities.
- **In-Country Labeling Requirements:** Regulations and guidelines imposed by a specific country regarding the information and specifications that must be included on product labels within its jurisdiction. These requirements often were expressed as nutrition information, ingredient lists, unit conversions, language translation, and legal compliance.
- **Paperwork:** The documentation, forms, or administrative tasks required for export purposes.

- **Shipping and Import Costs:** The expenses associated with transporting goods from one location to another, including shipping fees, freight charges, customs duties, taxes, and other costs related to the importation of products into a particular country.

Table 8 - Top Nine Themes in “Challenges and Bottlenecks”

Subject	Years Exporting	Competition	Market Factors	ROI	Customer Education	Domestic Prioritization	Lack of Knowledge/ Experience	In-Country Label Regulations	Paperwork	Shipping and Import Costs
<i>Producer2, Producer3, Producer4</i>	< 10	x	x	x		x	x			
				x	x		x	x		x
		x	x	x					x	x
<i>Producer5, Producer6, Producer8</i>	10-20					x		x	x	x
						x			x	x
			x	x	x		x	x		x
<i>Producer1, Producer7, Producer9, Producer10</i>	20+	x	x	x		x	x	x		
		x	x		x					
		x	x	x	x	x			x	
		x			x		x	x	x	
Total Count		6	6	6	5	5	5	5	5	5

Main Themes

What follows is an exploration of the three most common themes relating to the “Challenges and Bottlenecks” category. Pertinent sub-themes within each theme are also discussed.

i. Competition

The theme of “Competition” came up in 60% of subject interviews. The most common sub-theme was an expression of competition with Canada. This sentiment was never expressed during direct questioning of challenges experienced; rather, competition with Canada was expressed in other areas of the interviews. The most straightforward interpretation of this sub-theme was actual mentions of Canada having market dominance in a given country or region. Producer1 and Producer4 nearly assert defeat where they have seen Canada get a good “handhold”:

“Canada has always had a good handhold on Europe because they have those close ties with the French, so they've always dominated that. None of the big companies have broken into it.” - Producer1

“I've looked at Australia. Looked at the possibility of selling throughout, but all of their product is Canadian. Canada really has a stranglehold...Canada really is the boss when it comes to maple syrup.” - Producer4

This sub-theme of Canadian maple syrup dominance not only is only expressed by the countries sold into but even extends to the customer’s mindset when evaluating the country of origin for this foreign product of maple syrup, as Producer9 has experienced multiple times:

“I've heard, ‘I only buy Canadian,’ or my customers will not trust maple syrup from America because they think [maple syrup] only comes from Canada. I've heard that quite a few times.” - Producer9

Several producers mentioned Canada's production and the sheer volume that the United States has to compete with. That introduced a new sub-theme where Canada's perceived resources and government support of maple syrup actually intensified the international competition in a new arena of marketing and trade. Producer10 comments on Canada's market development efforts and some maple syrup brand marketing which is incorporated into their national flag:

"My general sense is that Canadian Ag has done a pretty phenomenal job leading market development with maple and using it actually as a market development door opener potentially for other agricultural products from Canada. What better product to use than the one that shows up on your flag, and they've put a lot of money towards that and have good support of export programs...That's just my perception. So their time in market, the funding in market, and reduced barriers to entry to market as a result make Canadian syrup the most familiar syrup in export markets..." -Producer10

This Canadian advantage seemingly extends to negotiated international trade agreements, where producers are at a trade disadvantage with a country or region while Canada is at an advantage with the sale country or region. This sub-theme is best summarized by Producer1's experience getting orders cut off from a customer in a certain country, likely referencing the 2016 Comprehensive Economic and Trade Agreement (CETA) trade agreement between the European Union and Canada, allowing Canadian syrup to enter European markets with no tariff, while U.S. maple syrup is taxed at 8%:

"And then all of a sudden, the export rules changed somehow, and it became cheaper for them to get it from Canada because the export taxes had changed." - Producer1

While competition with Canada was a primary sub-theme expressed by some producers, a lesser-mentioned but still relevant sub-theme was competing with other U.S. producers.

Subjects had perspectives that larger producers were more experienced at export and so could better take advantage of international opportunities. Additionally, many of the sentiments expressed had to do with larger maple syrup producers having the resources to better market, sell, and transport maple syrup abroad, best expressed by Producer3:

“we're just not set up right now to be one of the best companies to try and take advantage of [export].” -Producer3

The comments and insights which support this theme of “Competition” all showcase the contemporary challenge these subjects face when selling abroad and trying to provide value to a foreign customer.

ii. Market Factors

The theme of “Market Factors” came up in 60% of subject interviews. The most common sub-theme was an expression of in-country conditions or regulations causing unfavorable or impossible conditions for maple syrup to be sold. Producer9 talks about the tariff going into Europe, which makes Canadian maple syrup more favorable in the market:

“Canada is really taking over the European market, but that's just because of the trade deal. We have an 8% tariff going in, whereas Canada has 0%. Especially when you're dealing with a commodity, that's just a nonstarter for us.”
-Producer9

Producer4 expresses being cut off from a customer in Russia entirely when Russia went to war with Ukraine and the United States ended trade with Russia. Another market factor negatively impacting producers was COVID-19. The volatility of sales during COVID-19 in food service and retail was mentioned by several subjects. Producer6 describes how

their primary customer types of physical retail and food service were impacted in different ways:

“During COVID, we got stronger, retail-wise, but because we are so food-service and resort centric, we dipped heavily while everything was closed for a minute... [Our product] goes into a fair amount of specialty stores, wine shops, cheese shops, and things like that. So we didn't feel a big retail boom.” -Producer6

Lastly, in some subjects' interviews, mentions of commodity pricing became an issue, especially when considering maple syrup as a manufacturer's ingredient and fluctuating exchange rates of currency when exporting. Producer3 captures the sentiment about ingredient price while Producer9 expresses the risks associated with foreign currency fluctuations:

*“When it's the ingredient market, price is always the number one thing.”
-Producer3*

“Well, this year, it's favorable. I lose that market next year... it has nothing to functionally do with any changes to either one of our cost structures other than currency.” -Producer9

The comments and insights which support this theme of “Market Factors” all indicate the challenges associated with the economic and customer behaviors which these subjects face when deciding to enter into or remain in a foreign market.

iii. Return on Investment

The theme of “Return on Investment” came up in 60% of subject interviews. “Investment” in this context meant the time and resources used to fulfill an international order. Time was the most common sub-theme expressed, where an export order was a perceived “time suck” or taking an exorbitant amount of time to complete. Producer4 explained the back-and-forth nature of completing their first export order's paperwork, leaving them questioning their motives for exporting in the first place:

“They kept asking for different paperwork, and [we] would have to resubmit things or word things a little differently, and we got it down now, the three or four years that we were shipping for them. We've got it down, but that first year it was like, ‘Why are we doing this?’ It was a challenge that way.” -Producer4

Producer6 explained how a seemingly simple international order could take up excessive amounts of time, leaving them to prefer paperwork shortcuts or brokers who take responsibility for the paperwork entirely:

*“Anytime the ease of use for just setting up shipping or receiving on either end, especially for smaller companies that may not have a team dedicated to importing and exporting...because we don't have a team dedicated to it, that simple order can take the better part of a day to get all the paperwork together.”
-Producer6*

Producer6 later questioned the value of overcoming international challenges, accounting for all the costs to the customer, the costs of shipping, and the recognizability of maple syrup as barriers they've had to overcome but still evaluate exporting to that market as worthwhile:

*“It's the dollars and cents of it. How are people going to afford to bring it in and even what it cost to get on a plane or a boat from here, and then, when they've got to pay on their end, whatever country it is, the tariffs and taxes to get it there. The dollars and cents of international shipping are what stand in the way... I don't know how recognizable maple syrup is in some other regions as what it is to us here...but it's not readily available, and so it's not something really on their radar as much.” -
Producer6*

The actual accounting for return on investment, or “risk-reward,” was expressed by Producer10 to the extent their ultimate calculation ended in the choice between selling abroad or remaining domestic:

“...it's really about weighing the risk-reward, as it relates to domestic versus international. Market size and risk. We know how hard it is to teach consumers about pure maple syrup here in the US. It's not going to be easier outside, and we've already talked about all of the other risks associated with market building and sales process for export.” -Producer10

For some producers, the sub-theme was a commitment to an international strategy but having to face the practical realities of return on investment labels. Producer2 expressed their considerations when purchasing for a certain country's label requirements:

"We buy 3,000 sticker rolls. But if we're buying 3,000 sticker label rolls for one country's requirements. We need to have a whole lot of sales in that one country to make up for that label roll [cost]." -Producer2

Summarizing this return on investment theme exceedingly well, Producer3 expressed their perceived loss of profit exporting because of the time involved and later called into question the further investment of time to hire someone to aid in the export process:

"The amount of time spent on trying to just execute the sale and get it there is not worth it from the amount that we're selling. It's just a huge time suck. I would say none of the exporting we've done has been profitable because of the time trying to actually execute the sale." Later adding about seeking a broker for the export process, "We don't do enough of [export] to justify to even figure out who to hire." -Producer3

The comments and insights which support this theme of "Return on Investment" all indicate the challenges associated with accounting for profitability after investing time, money, and other resources into sales and production directed toward export.

D. Category of "Opportunities and Strengths" addressing Research Question 4:

What are the opportunities and strengths perceived by each maple-syrup SME exporting or not exporting?

Analysis

This section deals with the perceptions and experiences of the subjects as it relates to positive export outlooks, plans for the future, and the assets of export operations. This section captures the subjects' expressions of optimism and reasons why

they believe the export experience is working well for them. To uncover and understand these experiences, subjects were specifically asked in each interview about the opportunities for export. These overt expressions were easily coded in the data. However, throughout the subject interviews, implied opportunities were unstated, but viewed within the context of what was said becomes apparent. Instances of these implied opportunities include clarity of strategy, market prospects, and leveraging process or technology.

Table 9 introduces the themes developed from the data pertaining to the category of “Opportunities and Strengths.” The three prevailing themes of this category that support the main findings of this study will be explored individually, with notable sentiments and insights across all category themes following. Opposed to the “Challenges and Bottlenecks” category, the data in this category was highly convergent and produced only six themes. Table 9 shows all six themes connected to which subject expressed opportunities relating to that theme. The six themes with their definitions as it relates to this study are:

- Product Appeal: Utilizing strategies or targeting customer market segments associated with quality, consistency, niche, or value-added maple syrup products.
- Market Prospects: Favorable conditions or circumstances within a market that create potential for business growth, profitability, or success.
- Clarity of Strategy: An approach adopted by a producer to achieve its business goals and objectives. Often expressed as plans to compete in a chosen market.
- Leveraging Process or Technology: In the case of export, this meant utilizing a specific process or technology to gain a competitive advantage or improve operational efficiency to create value for the business.

- Engaging with Experience: Hiring or partnering with individuals or organizations based on their relevant knowledge and skills for the processes associated with selling and shipping abroad.
- Carefree about Canada: This references a producer attitude that doesn't see Canada as an opponent in the market but more so sees the Canadian competition as a way to benefit their export efforts.

Table 9 – The Themes of “Opportunities and Strengths”

Subject	Years Exporting	Product Appeal	Market Prospects	Clarity of Strategy	Leveraging Process or Tech	Engaging with Experience	Carefree about Canada
<i>Producer2, Producer3, Producer4</i>	< 10	x	x	x		x	
		x	x	x	x	x	
		x	x				
<i>Producer5, Producer6, Producer8</i>	10-20	x		x	x		
				x	x		
		x	x	x	x	x	x
<i>Producer1, Producer7, Producer9, Producer10</i>	20+	x	x		x		
		x	x	x		x	x
				x			
		x	x		x	x	x
Total Count		8	7	7	6	5	3

Main Themes

What follows is an exploration of the three most common themes relating to the “Opportunities and Strengths” category. Pertinent sub-themes within each theme are also discussed.

i. Product Appeal

The theme of “Product Appeal” came up in 80% of subject interviews when perceived advantages or opportunities were discussed. This theme consisted of sub-themes relating to an exported product’s quality, consistency, niche attraction, or value-added elements across the subject’s exported maple syrup products. The most common sentiment expressed about perceived opportunities abroad was the appeal of “quality” maple products. Elements of “tasting clean,” “smoothness,” and superiority of flavor over other brands were common remarks. These components of “quality” were seen as successful measures of winning international business. Producer1 stated their certification of Safe Quality Food (SQF) was a draw for customers seeking maple syrup recognized as safe and quality. Producer6, elaborating on the quality of taste in their product, explained the premium cost for shipping internationally was not a hindrance to customers:

“But it tastes very good, so I get why people want it, and they’ll pay for the shipping.” -Producer6

A tangential element to quality that supports the theme of product appeal is the sub-theme of consistency. Producer9 explained best how consistency factors into their perceived opportunities abroad:

“If you have a bottle of our maple today, you can go buy a new bottle in five years, and it’ll taste the same. We’re trying to strike a consistent note across the board with our maple syrup, and that’s very important, too. I think anyone who’s ever worked in the food business, or really any business, you want consistency. Nobody wants, “What’s it going to be today?” In business, I think in life in general. People enjoy that consistency.” -Producer9

The additional product appeal sub-themes of providing a unique, niche, or value-added maple product were also present in the data supporting an opportunity producers saw

when developing sales internationally. Producer3 explains a unique niche product that supports their export business and provides them with further international exposure:

“I would just say with [the unique syrup product]... we are the only ones who are really trying to export it. That's the little niche we have. There are lots of people exporting maple syrup way better than we are, but we are the ones with [the unique syrup product].” -Producer3

Producer2 explained the international market opportunity they saw for their unique and value-added product of infused maple syrups:

“They have no maple syrup, so they tend to really like us. We are pretty unique in our flavors. I don't think there is a market there at all. Obviously, in the United States, there are definitely some companies now doing all of your infusing and your barrel aged and all that fun stuff. I don't think it's that big of a market over there at all. If we are able to get our flavors over, that would be a huge draw for us and big potential for sales.” -Producer2

The comments and insights which support this theme of “Product Appeal” all indicate the opportunity seen by a majority of the subjects that a maple product with valued elements of quality, consistency, niche attraction, or added value created or had the potential to create international sales opportunities.

ii Market Prospects

The theme of “Market Prospects” came up in 70% of subject interviews. By far, the most common sub-theme was the general awareness that the market opportunity in the United States was going to be able to fuel producers’ international expansion aspirations.

Producer2 fully expressed the situation many of the producers found themselves in:

“...[international is] definitely a marketplace where we see a lot of potential and a lot of money to come in from maple syrup because you don't see many maple trees or tapping over there at all.” Later elaborating, “We know that maple is going to be a very big market for us if we can tap into that abroad market. Because nobody has maple season. We had that in the back of our heads, ..., But really it was just our local sales are great...” -Producer2

A key element that became a sub-theme across several producers was that of an awareness of the international market opportunity but lacking the resources in the present moment to develop sales abroad. Producer7 explained the opportunity as they see it, domestic growth fueling their ability to expand efforts abroad:

“I think there's a huge market out there for it. It's just figuring out how to get into those markets.” Later elaborating, *“I think when we get a little bit larger and have a little bit more money in our budget, we put it on doing like food export shows. Or having a salesperson on our staff to focus on exporting maple syrup. There are millions and millions of dollars to be made in that market, and when we get our new facility done, we'll definitely be putting someone on the payroll to chase those accounts. I just think it needs more money.”* -Producer7

A sub-theme that developed but was not widely expressed among producers was that of specific markets with perceived potential. Producer9 mentioned emphatically South and Central America were going to be exciting markets to watch in the near future as well as parts of Asia. Producer1 provides a specific market with the caveats to developing that specific market:

“I think that Dubai, United Emirates area, there's a lot of interest there...[Maple syrup] checks all the boxes for those overseas customers that are looking for that. It's whether or not they know what it is and how to get it. I think that gap is closing, but the potential is there.” -Producer1

The comments and insights which support this theme of “Market Prospects” all indicate the opportunities associated with markets that producers see as advantageous to them to grow their business and develop their expansion into international markets.

iii. Clarity of Strategy

The theme of “Clarity of Strategy” came up in 70% of subject interviews. This common theme was supported by producers’ acknowledgment that exporting abroad is a difficult and tedious endeavor, yet having a plan or approach philosophy on how to

engage with international markets became an important theme. The opportunity was seen as having the strategy to approach international markets in a planned way, which included not pursuing international sales yet was still a clear strategy. Producer5 explained their philosophy on the matter and shared their insight as to why it may be a “pain”:

“I think if you’re good at international, it’s not easy, but it’s manageable, and if you’re not as good at it, not focused on it, it’s kind of a pain.” -Producer5

Though this common sentiment was expressed in different ways by different producers, Producer9 provided the most robust explanation for having a clear strategy when developing international sales:

“There’s something to be said, ‘half the battle is showing up.’ So we work hard to try to be everywhere we can be. I’ve been to so many trade shows abroad, I’ve done so many export meetings...So the more people consistently see you, the more they know you’re serious, you’re a company that’s here, and you’re invested.” Later expounding upon their strategy, *“We’re just willing to do it. Export’s a pain...Getting the product is easy, but we have to cater to each country’s paperwork and what they need to be done, and that’s a pain, and a lot of people sort of get into it. They do a couple of orders and go, ‘You know what, I’m good.’ So we’ll do it. And at this point. We’ve done it so many times with so many countries that you can’t really throw us a curveball at this point.”*
-Producer9

As a counterpoint to having a clear strategy inclined toward international sales, Producer10 provided a clear strategy, but it was not to pursue international sales. Rather they drew a clear line at reactive sales, discussed in Section B.ii., and refused to cross that line, but knowing what they are good at and what they are not:

“I think being really clear about what we’re willing to do and what we’re not willing to do, and where we have the expertise and where we don’t.” -Producer10

The comments and insights which support this theme of “Clarity of Strategy” all indicate the opportunities where a clear plan or approach to selling internationally was important and strength to their operation. The producers who expressed sentiments that supported

this theme, knowing that export is a “time suck” and “it is not easy, but it's manageable,” developed a clear strategy to support their position.

E. Addressing Research Question 5:

Given the current domestic market opportunity for U.S. maple syrup, are there economic incentives for U.S. SMEs to develop export markets?

Section Introduction

This section deals with the aggregated perceptions and experiences of the subjects as it relates to the trade analysis found in Chapter 2. References to previous tables, figures, and sections will be used to connect ideas and themes supported with additional subject insights and sentiments.

An important note before proceeding, this section talks about trade findings from Chapter 2 and the preceding SME export experiences; however, it should not be assumed that the SMEs in this study make up any given percentage of the U.S. trade data. For example, it would be incorrect to assume that since Producer7 exports one of the highest self-reported percent of volume among the subject, they make up a certain percentage of U.S. exports from the trade analysis. On the other hand, it would be safe to cautiously assume that there is a correlation between Producer1, who regularly exports in high volume and has been exporting for the longest period of time stated among the subjects, that they represent a certain amount of trade data and have for some time. However, the exact amount of trade they conduct is unknown to this study. These exact SME export values would be impossible to determine without a detailed volume and revenue account from each, which was beyond the scope of this study despite a qualitative interview question asking for said information.

Analysis

The overriding theme from Chapter 4's trade analysis was one where the United States continues to experience a surplus demand for maple syrup, and Canada will continue to export to supply the growing trend in U.S. consumption (Figure 4). The trend remains wherein the United States still increases its production year after year while domestic consumption greatly outpaces production. Thus, all the maple syrup made in the United States can be sold in the United States. Giving U.S. producers a tremendous domestic market opportunity to continue to sell into so long as Canadian maple syrup imports into the U.S. continue to fall and U.S. production continues to grow (Figure 5). Producer10 took note of this dynamic and added their rationale for continuing to sell into the U.S. market:

"...one of the things that we've got going for us here in the US. Is that we're domestic suppliers, and one of the things that Canadians get to struggle against is they're exporting to the US. So all of those things I don't have to deal with when I sell in my local market, and it's everything from the paperwork, the freight, time to pay, the risk, the distance from the customer, the distance from the consumer."
-Producer10

The ease at which maple syrup can be shipped domestically clearly adds to this domestic opportunity. Producer3 commented upon this reinforcing factor for domestic and cost preference over international:

"A package that I can send from [New England] to California via 2-day air for \$10, it costs me two and a half times that to send it 60 miles north [into Canada]. I'm sure the carriers have to deal with a lot more expenses when they're shipping internationally. And so they just pass them along, and where domestically it's easier." -Producer5

When approached about international market opportunities, the reactive or internationally inclined producer may pursue those sales when and if they materialize, forgoing possible domestic sales, as noted by Producer8:

“[the founder] really recognized the foreign market as a possibility, as an untapped possibility for maple syrup in general. So that was why he, with a very, very small company, you might have said, “Shouldn't you try and get into the local grocery stores before you try and get into Japan.” Which was a valid question.” -Producer8

While this opportunity in the U.S. market exists for U.S. maple syrup producers, Canada's maple syrup production has nearly doubled while importing less from the United States and exporting more internationally. The increase of even more Canadian maple syrup into the global marketplace lays the groundwork for further expansion of Canadian global market share (Figure 8 and Figure 9). Along with Canadian global market expansion, the theme of competition being cited as a main challenge by producers (Section C.i.), several producers also raise a contributing element to Canada's superior position in the international consumer's mind, expressed again here by Producer9:

“I've heard, ‘I only buy Canadian,’ or my customers will not trust maple syrup from America because they think [maple syrup] only comes from Canada. I've heard that quite a few times.” -Producer9

Canada has a very strong international market position, which these subjects are aware of and have experienced directly. However, this specific customer mindset talked about by Producer9 is no doubt interesting but very detrimental to any efforts to increase international sales where Canada has already established a presence. New producers to export and developing international sales may be hobbled by the practical nature of securing those international sales and inhibit expansion abroad, as Producer3 describes:

“You gotta know what you're doing to get to sales. And then once you have the sales, you can hire somebody. But until you hire somebody, you're probably not going to get sales because you don't know what you're doing.” -Producer3

At this immature yet quickly growing stage of market development for the United States and the competitive advantage any U.S. producer has over Canada selling maple syrup into the United States, the opportunity cost of selling maple syrup abroad versus selling

domestically becomes the question. Answering that question will depend on the producer's honest accounting for all the themes discussed in this chapter, namely competition, market factors, return on investment, product appeal, market opportunities, and having a clear strategy. However, it must be said that internationalization is not necessarily an either-or scenario. It just comes at a price producers must be willing to pay.

Author's Notes

This section seeks to capture the small yet important pieces from interviews that couldn't be fully expressed in the themes listed, but the author deems them to be of benefit to U.S. maple syrup producers at large.

Government Assistance for Agricultural Food Export: Several federal government agencies have operations in all the maple syrup-producing regions of the United States. The notable agency is Food Export Northeast, but other regions can be found here: <https://www.foodexport.org>. At the time of this writing, they offer various services that help educate U.S. maple syrup producers about export, develop market entry strategies, build connections in those markets, and support ongoing export efforts. These services are invaluable if producers are beginning sales abroad or would like to develop an existing foreign market.

Leverage Online Services: The Internet has made the world smaller. Having a robust online presence that can promote and capture sales from international customers is a reliable avenue to begin experimenting with sales abroad. Outside of building a web presence, utilizing sales platforms with paths to international markets could be a viable

option. At the time of this writing, <https://www.faire.com> is one such online wholesaler with sales pages in international markets.

With the domestic opportunity being too significant to ignore but international markets also seeing growth, the author suggests having a plan for both domestic growth and international development; whether to increase export or begin sales abroad will depend on the operation and appetite for risk. No business endeavor is without risk, but time and time again, experiential learning and growth into foreign markets benefit the internationalizing firm, as Chapter 1 finds.

Finally, there is a significant opportunity to adapt maple syrup to the in-country consumer habits and culture. These findings show there is little cultural adaptation taking place, and maple syrup is still being seen as an esoteric American product and being used as a breakfast sweetener. Ignoring the opportunity for cultural nuance and distinction may be ignoring significant international growth opportunities.

CHAPTER 5: Discussion

Discussion

Six categorical findings were generated from qualitative themes in this case study of exporting U.S. maple syrup SMEs. The first set of three findings refers to challenges experienced by the case subjects. The first challenge is that of competition with Canadian and other U.S. producers' exports. The second challenge is that of market factors which consisted of trade agreements, economic impacts of COVID-19, and currency exchange

fluctuations. The third challenge is that of the return on investment for export, consisting of the higher costs and the more time-consuming aspects associated with export.

The second set of three findings refers to the opportunities perceived by the case subjects. The first opportunity is that of product appeal consisting of offering a quality, consistent, or unique product. The second opportunity is that of market prospects which consisted of domestic growth fueling international aspirations and seeing specific opportunities in certain countries or regions. The third opportunity is that of clarity of strategy consisting of acknowledging export is difficult and taking a focused and planned approach to sell or not sell internationally. These findings address the purpose of this research: to better understand the experienced challenges and perceived opportunities U.S. maple syrup producers have exporting their product abroad.

The findings further relate to an earlier topic discussed, that of internationalization. The Uppsala Model, also known as the Internationalization Process Theory (Johanson and Vahlne, 1977) discussed in Chapter 1, provides a framework and context to better understand these findings and connect them to the gradual and incremental international expansion of SMEs. The model emphasizes the importance of experiential learning, market knowledge, and reduced uncertainty in the internationalization process. When considering the challenges and opportunities of the exporting maple syrup SMEs, they can be linked to the Uppsala model in several ways.

First, according to the Uppsala Model, firms accumulate knowledge and experience as they gradually expand their international operations. Experiential learning, as identified in the case subjects, comes with time and the frequency of export. The challenges identified, such as competition, market factors, and return on investment,

highlight the need for further experiential learning in international markets to better understand market dynamics, adapt export strategies, and refine their approach over time.

Second, the Uppsala Model suggests that firms gain market knowledge through various stages of commitment to a market, initially starting with small exports or exports to nearby markets. This builds the SME's market knowledge, and the challenges and opportunities explored showed the subjects in varying degrees of understanding cultural preferences, complying with import regulations, and identifying market-specific factors outlined in the Uppsala Model. This reflects the significance of acquiring and utilizing market knowledge to navigate the complexities of international markets to further the subject's internationalization process.

Third, reduced uncertainty in the Uppsala Model proposes that firms gradually increase their commitment and resource allocation to foreign markets as their uncertainty decreases. The challenges discussed, such as market factors and competition, reflect the uncertainties faced by the subjects when entering or remaining in foreign markets. As SMEs gain experience, develop relationships with more customers, like distributors, and build a larger international consumer base, they can reduce uncertainty and make more informed decisions regarding market selection, pricing strategies, and investment decisions.

Finally, the Uppsala Model suggests that SMEs typically follow an incremental path of international expansion, starting with markets that are geographically and culturally proximate before venturing into more distant and unfamiliar markets. This was seen with export to countries like Canada, Australia, and England for subjects newer to exporting

and markets like China, Dubai, and Japan being developed by subjects more seasoned in export. SMEs can leverage unique product offerings, address market-specific challenges, and refine their business strategies as they progressively expand into new markets.

It can be seen that themes relating to the challenges and opportunities of U.S. maple syrup export align with the key principles of the Uppsala Model. The findings highlight the significance of the internationalization progression and how U.S. maple syrup producers can navigate the complexities of selling abroad and strategically expand their operations over time.

Implications

This study offers practical implications for U.S. maple syrup producers, researchers in this field, as well as companies and agents involved in export operations. First, these findings can lead to more informed decision-making on the part of the exporting producer. Understanding the challenges and opportunities associated with maple syrup export and the international trade dynamics at play enables producers to make more informed and strategic decisions by considering the feasibility, profitability, and long-term goals of entering specific international markets. These factors then help guide resource allocation, market selection, and investment decisions. Additionally, it helps minimize risks, maximize market potential, and increase the likelihood of successful market entry and sustained growth abroad.

Second, these findings can help with market adaptation. Recognizing market-specific factors and consumer preferences allows exporting producers to tailor their products, marketing strategies, and sales and distribution channels to effectively

penetrate and compete in different markets. Adapting to cultural nuances, complying with regulations, and understanding customer preferences contribute to the successful establishment and growth of maple syrup exports in specific regions. Additionally, by understanding the competitive landscape and market conditions, exporters can develop differentiated value propositions, identify market gaps, and select suitable sales and marketing strategies.

Finally, the findings can aid in planning for long-term growth for individual firms and the industry. Taking into account the principles from the Uppsala model (Johanson and Vahlne, 1977), gradual and incremental expansion, accompanied by experiential learning, allows exporters to build relationships, establish a brand presence, and gain market knowledge. By strategically addressing challenges and capitalizing on opportunities, U.S. producers can position themselves for long-term success, expand their market reach, and create sustainable competitive advantages.

The practical implications of this study can empower U.S. maple syrup producers to make informed decisions, adapt to market conditions, and pursue long-term growth in their internationalization efforts.

Future Research

While the findings from this study could help inform the export strategy of U.S. maple syrup producers and contribute to the literature, there are many areas that future research could investigate, such as the Canadian SME experience with export, in-country entities who interact with the final end-consumer, and an exploration of different country's regulations and protocols for importing maples syrup.

Acknowledging that this study is rooted in the U.S. maple syrup perspective, a valuable future study for an American researcher would be to conduct the same qualitative research on export experiences but with the Canadian maple syrup producers who export. This would likely lead to divergent insights and themes about foreign customer education and foreign marketing strategy, as well as unique perspectives into market development initiatives of new countries, which the United States does not lead in or has exported to. In the same vein, understanding more contemporary export experiences from SMEs in the non-timber forest products industry beyond maple syrup could glean valuable insights for the industry to compare and contrast.

Researching the in-country entities who interact with the final end-consumer, such as importers, distributors, retailers, wholesalers, and food service, could render highly impactful findings. Gaining qualitative insights from these entities about how they strategize for selling and marketing maple syrup to their end consumer could provide the most important findings when it comes to foreign consumer demographics, education, and purchasing habits. These entities are the ones in the international value chain that are closest to the consumer and would be able to provide the most culturally significant themes for how consumers use maple syrup.

Finally, given the high amount of reported issues with the paperwork and import process by this study's SMEs, an exploration of different countries' regulations and protocols for importing maple syrup could prove valuable. The global trade landscape is ever-changing with fresh or shifting policies, arcane regulations, corruption, and a clerical quagmire of logistical paperwork and procedure to wade through. Understanding the deeper causes and issues creating these challenges and exploring the solutions, like

software platforms, technology, and business models, easing the export-import process could be meaningful research to any SME importing or exporting.

Conclusion

Maple syrup in the United States, particularly in the Northeast, has a long and storied history, evolving over time from a valued source of calories for indigenous communities coming out of winter into an internationally traded commodity. Maple syrup is an esoteric-North American product that falls into a category of products derived from the sap of maple tree species and is typically used as a breakfast meal sweetener. This seemingly innocuous product has been experiencing a boom in the United States, seeing a 306% increase in production from 1992 to 2022, with production in 2022 sitting at 5.03 million gallons. While this is no doubt impressive production growth for the country's maple industry, U.S. consumption over the past 12 years has grown even faster, with maple syrup consumption increasing by 109%. As of 2022, U.S. consumption sits at 12.57 million gallons, which creates a significant supply-and-demand dynamic domestically and a market trend that influences much of the findings in this study; for the past 12 years, domestic consumption has greatly outpaced domestic production in the United States.

Despite the overwhelming domestic demand, U.S. producers do export around the globe at an increasing rate. Over the past 21 years, U.S. exports to the globe, excluding Canada, have increased by 30%. Intentional internationalization, or the process an enterprise takes to increase its involvement in international markets, can be one of the main drivers guiding a company's growth. However, for small- to medium-sized enterprises (SMEs), the path to internationalization is fraught with challenges. This

qualitative study sought to uncover the challenges and opportunities U.S. maple syrup SMEs experienced by way of five research questions.

By way of a thematic analysis of semi-structured interviews with ten exporting U.S. maple syrup producers, six common themes of “challenges and opportunities” were found. These themes cannot be assumed to apply to every maple syrup producer, as this was an investigation of ten cases within the bounded population of exporting U.S. maple syrup SMEs. But the existence of these patterns in across these cases suggests that these themes occur elsewhere. This case study invites a detailed look at export experiences and perceptions and how the contemporary trade landscape impacts maple syrup producers in the United States. Examination of trade and interview data supports a nuanced and unique situation U.S. producers find themselves in when exporting. These findings inform the collective knowledge and experience about U.S. maple syrup export, a difficult and uncertain process fortified with distinct possibilities.

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Appendices

Appendix 1: Recruitment Materials

EMAIL OUTREACH

Subject: Opportunity to Participate in Maple Syrup Research - University of Washington

Email Body:

Hello [CONTACT],

My name is Blaze Burke. I'm a student at the University of Washington conducting thesis research on the international opportunities for the export of U.S.-produced maple syrup. My goal is to understand your experience exporting maple products. I've identified [CONTACT] as an ideal research participant, and I would be grateful for your company's participation. After the initial screening, this participation would take the form of an interview lasting about 30 minutes. The information you provide will be kept confidential, and any published findings will be anonymized among the other research participants. As a 'thank you' for your time and contribution, I will send you a digital copy of my final analysis of U.S. maple syrup's international opportunities and export challenges.

Please forward this request to whom it may concern or respond for further information or interest in participating.

Thank you in advance for your time and consideration.

-Blaze Burke
937-369-1380
Candidate, Master of Science
School of Environmental and Forestry Science
University of Washington, Seattle

*This contact information was obtained from your website.

TELEPHONE OUTREACH

Phone Talking Points:

Hello. My name is Blaze Burke, and I'm a student at the University of Washington conducting thesis research on the sale of U.S.-produced maple syrup and its associated products. My goal is to collect research data about your current or past experience or future intention of selling and shipping maple products outside of the United States. [Insert Company] has been identified as an ideal research participant, and I would be grateful for your company's participation.

You, your team, and your company's information will be kept confidential and anonymized among the other research participants. As a 'thank you' for your time and contribution, I will send you a digital copy of my completed thesis and analysis.

Would you be interested in participating?

Any questions?

Are you willing to schedule a time for a follow-up interview?

Thank you

*This contact information was obtained from the contact page of your website.

The subject's contact information for the email and phone method was collected from the given company's (subject's) public-facing website or other publicly available sources (yellow pages, etc.).

Appendix 2: Interview Question Framework

Introduction:

- Introduce yourself and the company you work for.
- Describe your current role and its responsibilities.

<p>Research Question #1:</p> <p>To what extent have U.S. maple syrup SMEs sold their products internationally?</p>	<p>When did you start selling your product outside the United States?</p> <p>What prompted your interest/desire to sell product outside the United States?</p> <p>Tell me about your exported <u>volume</u> in a typical year.</p> <p>Tell me about your exported <u>revenue</u> in a typical year.</p>
<p>Research Question #2:</p> <p>How have SMEs conducted export, if at all?</p> <ol style="list-style-type: none"> a. What products have the identified SMEs exported? b. Where have the identified SMEs exported? c. How have they exported their products? 	<p>Which country or countries do you export to?</p> <p>In the past, have you exported to other countries?</p> <p>Do you export any other maple-based products beyond syrup?</p> <p>Can you describe the packaging your maple products are sold in?</p> <p>What volume or weight units are you tracking your exports in?</p> <p>Can you talk about the process you took to begin selling outside the United States?</p>

	<p>Can you describe your marketing efforts?</p> <p>What is your current experience like developing these international sales?</p> <p>In what ways, if at all, do you work with international stakeholders, trade partners, or international employees to aid in this process?</p> <p>When it comes to the country(ies) you sell to, how do your end customers view your product?</p> <p>What kind of feedback have you received about your product?</p> <p>Do you know how end consumers use your product(s)?</p> <p>Are there any aspects of your product that customers/purchasers are drawn to (organic, non-GMO, Kosher, "light amber," made in the U.S.A., etc.)?</p> <p>What strategies do you use to inform the development of new international products?</p> <p>Are there any resources or data informing your international strategy?</p>
<p>Research Question #3:</p> <p>What challenges and bottlenecks are perceived by each maple-syrup SME exporting or not exporting?</p>	<p>What challenges do you face as it pertains to selling your product internationally?</p> <p>What aspect of the international selling process would you change if you could?</p>

<p>Research Question #4:</p> <p>What are the opportunities and strengths perceived by each maple-syrup SME exporting or not exporting?</p>		<p>What aspects of the international selling process work well?</p> <p>What opportunities do you see as it pertains to selling your product internationally?</p>
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Appendix 3: Interview Protocol

Protocol

Greeting and Introduction

-Introduce the study and a brief purpose of the study.

- Qualitative research – your interview is the data point.
- No right or wrong answers.
- If you are not comfortable with any questions, I could give options for answering.
- Opt out of any questions.
- Interested in your experience as it pertains to selling internationally

-Ask if they have questions or concerns regarding the study or the consent form.

For a Maple Syrup Producer Who Currently Sells Outside the United States

Introduction:

Please introduce yourself and the company you work for.

Describe your current role, and its responsibilities.

1. When did you start selling your product outside the United States?
 - a. What prompted your interest/desire to sell product outside the United States?
 - b. Tell me more about that.
2. Which country or countries do you export to?
 - a. In the past, have you exported to other countries?
 - b. If so, which countries?
3. Do you export any other maple-based products beyond syrup?
 - a. [If yes] Tell me about those products.
 - b. Where are they going?
 - c. Can you describe the packaging your maple products are sold in?
 - d. What volume or weight units are you tracking your exports in?

4. Can you talk about the process you took to begin selling outside the United States?
 - a. Can you describe your marketing efforts?
5. Not revealing any proprietary information, tell me about your exported volume in a typical year.

If the interviewee is uncomfortable responding with a rough number, offer volume ranges based on their previous answer.
6. Not revealing any proprietary information, tell me about your exported revenue in a typical year.

If the interviewee is not comfortable responding with a rough number, offer the following ranges:

 - a. *Less than \$25,000*
 - b. *\$25,000 - \$50,000*
 - c. *\$50,000 - \$100,000*
 - d. *\$100,000 - \$500,000*
 - e. *\$500,000 - \$1 million*
 - f. *More than \$1 million*
7. What is your current experience like developing these international sales?
 - a. In what ways, if at all, do you work with international stakeholders, trade partners, or international employees to aid in this process?
 - b. When it comes to the country(ies) you sell to, how do your end customers view your product?
 - a. What kind of feedback have you received about your product?
 - c. Do you know how end consumers use your product(s)?
 - d. Are there any aspects of your product that customers/purchasers are drawn to (organic, non-GMO, Kosher, "light amber," made in the U.S.A., etc.)?
 - e. What strategies do you use to inform the development of new international products?
8. What challenges do you face as it pertains to selling your product internationally?

9. What aspect of the international selling process would you change if you could?
10. What aspects of the international selling process work well?
11. What opportunities do you see as it pertains to selling your product internationally?
 - a. Are there any resources or data informing your international strategy?
12. Anything else you would like to add?

END OF INTERVIEW

Appendix 4: Field Note Examples

d. What volume or weight units are you tracking your exports in? *gallons*

4. Can you talk about the process you took to begin selling outside the US?

a. Can you describe your marketing efforts?

5. Not revealing any proprietary information, how would you describe the exported volume in a typical year? *minimal* ~~less than 10%~~
If the interviewee is uncomfortable responding with a rough number, offer volume ranges based on their previous answer. even than than!

6. Not revealing any proprietary information; how would you describe the exported revenue in a typical year? *less than 10% of*
If the interviewee is not comfortable responding with a rough number, offer the following ranges:

a. Less than \$25,000
 b. \$25,000 - \$50,000
 c. \$50,000 - \$100,000
 d. \$100,000 - \$500,000
 e. \$500,000 - \$1 million
 f. More than \$1 million

7. What is your current experience like developing these international sales?

exclusivity
FAIRE
Marketplace
- abroad sales

customer pays for shipping

required label
resource costly

i.

-Introduce the study and a brief purpose of the study.

- Qualitative research – your interview is the data point.
- No right or wrong answers.
- If you are not comfortable with any questions, I could give options for answering.
- Opt out of any questions.
- Interested in your experience as it pertains to selling internationally → *maple syrup associated*

Anonymous

-Ask if they have questions or concerns regarding the study or the consent form.

For a Maple Syrup Producer Who Currently Sells Outside the US

1. When did you start selling your product outside the US? *2005 -*

a. What prompted your interest/desire to sell product outside the US?

b. Tell me more about that. *Distributor*

2. Which country or countries do you export to?

a. In the past, have you exported to other countries?

b. If so, which countries?

3. Do you export any other maple-based products beyond syrup?

a. [If yes] Tell me about those products.

b. Where are they going?

c. Can you describe the packaging your maple products are sold in?

d. What volume or weight units are you tracking your exports in? *lbs*

4. Can you talk about the process you took to begin selling outside the US?

a. Can you describe your marketing efforts?

Canada
Williams-Sonoma
US/CAN
small volume
direct to consumer
AUS, Singapore
palette
192 bottles
→ France in March
CH Robbins broker

Early days
Mall, demos
→ direct to consumer
only Williams-Sonoma
85% pple would buy

ii.

Appendix 5: Case Memo Example From ATLAS.ti

1 People know how to answer questions better than others.

2 The "How customers view your product" question is a prime example:
3 "I don't know" vs "generally like it"

4
5 The US producer can use CAN syrup as a foot in the door and is better positioned to
6 sell domestically. -The world is their oyster -

7
8 Producers want peace of mind to the degree where there is more comfort in knowing
9 the product is going to be paid for, shipped, and enter the country ok.

10
11 Define based on case usage:

- 12 -differences in freight forwarder and brokers
- 13 -drop-shipping
- 14 -D2C
- 15 -"partner"
- 16 -wholesale pricing vs distributor
- 17 -wholesale for food service = distributor
- 18 -consumer vs customer

19
20 Export seems to be a subjective term

21
22 Commodity vs luxury products

23
24 Covid didn't hurt us or we were so ___ heavy Covid hurt us

25
26 Spectrum from commodity to craft - you can tell in how they speak and market their product

27
28 Quality: seasonality, consistency, uniqueness

29
30 [REDACTED] marketing = emails, catalog

31
32 Show companies in stages of internationalization

33

Appendix 6: Importer Survey Insert

Want to learn more about suppliers of Pure Maple Syrup produced in the United States?

The University of Washington is conducting research about what importers like you want and need to import Pure Maple Syrup made in the USA.

Please scan this QR code to take the short survey, and we'll send you a directory of U.S. providers of Pure Maple Syrup who want to grow their export business supplying you and your customers.

In addition, early survey respondents* will be sent a complimentary sample of pure maple syrup and/or other pure maple products – but only while our supplies last!

Send us your thoughts on importing Pure Maple Syrup for your customers, and we will get you samples of this amazing sweetener.

*To receive samples, respondents must represent a food importing commercial enterprise.

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www.cintrafor.org



Image: Lucas Guizo.



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