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Craft industry in B.C.'s forest sector: What can we learn from coffee and beer?

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ABSTRACT

This article analyzes the development of craft industries in coffee and beer to identify the key changes in regulation, capital markets, management, technology, distribution and marketing that made development possible. The article is written with the purpose of learning from these industries and examining their practical implications for creating craft wood products in the wood products manufacturing industry, using British Columbia's (B.C.'s) forest sector as an example. We examine the coffee and beer industries, where we observe innovation, new entry and growth stemming from a focus on value-added products in what had been considered mature industries. We start with the story of Third Wave coffee and how its marketing success, which created 'in-groups' and established a differentiated, quality-controlled product, led to the industry's rapid transformation. We use Resource Partitioning theory as a way of contextualizing these observations. Our discussions highlight practical implications for how our findings can be leveraged by either existing or new wood manufacturers, drawing on B.C., where commodity production dominates, and there is interest in growing a value-focused industry. In our conclusions, we observe that price premiums from craft products follow from psychic or narrative value, that capturing this value requires control of the customer relationship and that maintaining the quality standards necessary to produce this value requires new skills and management training.

INTRODUCTION

The evolution of industrial organization in a sector can be characterized by the development of the sector through different growth stages and the strategies that individual firms use to navigate changes in the business operating environment as the industry matures. These growth stages are described by the Product Lifecycle Theory (PLT) (Klepper 1997). The PLT describes industries as passing through three stages: embryonic, growth, and mature. In the embryonic stage, the industry produces a new product in highly uncertain conditions on machinery that is not specialized to the industry. As the industry moves into the growth stage, demand for the product grows much larger, product design in the industry is standardized, specialized equipment in manufacturing becomes adopted, and capital is substituted for labour. In the mature stage, output growth slows, innovation is less prevalent, and cost reductions are coming from streamlining processes. This is a technology and process-driven description of the evolution of industries characterized by commodity products, and the primary driver of this lifecycle is the pursuit of the returns to scale.

The forest sector is widely seen as a homogenous wood products supply chain where timber makes up a key output or input and as a mature industry consistent with the late stage of the PLT. One of the characteristics of mature industries is that concentration has increased as a consequence of competing on price and economies of scale, innovation becomes limited, and there are few, if any, new entrants (Low and Abrahamson 1997). This is the case for the primary sawmilling sector in B.C. and, more generally, in North America, which has seen significant ownership concentration as firms find the only efficient way to grow is through mergers and acquisitions while maintaining strict cost-cutting strategies in the commodity environment where lumber is sold into global markets with multiple competitors (Yin and Baek 2005; Boubacar 2024). Overall, this means the growth opportunities for the sector become more limited as timber resources become fully utilized, one of the reasons provincial governments and the Federal government have been interested in creating more value-added activity in the forest sector (Standing Committee on Natural Resources 2018).

In British Columbia, timber supply for the primary sawmilling subsector is declining due to natural disturbance events such as mountain pine beetle and wildfire and other societal goals such as old growth, habitat management, and conservancy creation. Where British Columbia once was one of the highest volume and lowest cost producers of primary products in the world, mills are closing as they face these fibre constraints, which has the potential to free up fibre for smaller scale operations producing higher value products (as that has typically been seen as the primary barrier to growing the value-added sector). There is significant interest to explore and understand where growth can come from, to what extent value added can offset the economic and social impact from the decline in anticipated timber volumes, and what can be done to support the growth of the value-added sector in B.C., and what policy levers may exist to do so, although this is a far from new consideration (DeLong et al. 2007). The PLT does not allow for the development of a value-added industry on its own, and one extension of the theory to allow for this is Resource Partitioning (Carroll 1985; Peli and Nooteboom 1999). In Resource Partitioning Theory (RPT), two sectoral dynamics occur. The first is of generalist firms pursuing returns to scale and servicing the largest markets with commodities. This is consistent with PLT. As the generalist firms grow to exploit the large markets, they leave room on the fringes for smaller firms to exploit niches that cannot be effectively served by a firm that is looking to lower costs through returns to scale. These specialized firms cultivate niches that are not amenable to returns to scale, which represents the second dynamic. In this case, there is effectively a partition in the marketplace, with small specialized firms competing to serve the needs of customers who are not well served by the commodity product on one side of the partition and on the other side of the partition, the large consolidated firms that pursue returns to scale to their logical, oligopolistic or monopolistic conclusion.

One industry where the Resource Partitioning Theory has been applied to explain the sectoral dynamics is craft brewing (Carroll and Swaminathan 2000). These authors find craft brewing carves out a partition for itself away from industrially produced beer through cultivating authenticity and identity for small brewers that separate themselves from the large, consolidated producers in the eyes of the consumer. RPT has also been used to explain partitioning in the U.S. wine industry (Swaminthan 2001), Italian beer industry (Garavaglia 2022) and Dutch auditing firms (Boone et al. 2000), and to explore the development of organic agriculture in the U.S. (Sikavica and Pozner 2013). RPT offers several mechanisms that could lead to resource partitioning[1] (Carroll et al. 2002), but there is little discussion of what strategies firms can use to take advantage of that space and achieve profitability within the partition. We use the coffee and beer industries to explore these firm strategies as both industries offer examples of small firms that do not depend on cost minimization and returns to scale to succeed and have distinguished themselves from the larger, more commodity-based firms operating in those sectors. We use these as case studies to offer insights into the wood products sector and the prospects for developing similar types firms within this sector.

METHODS

We used Web of Science, Google Scholar and other search engines to explore industries where we observed the growth of smaller value-added firms emerging from what had been mature and commodity-based industries. We also reviewed the literature, in addition to PLT and the application of RPT to different sectors, to find what factors of success had been identified as necessary for firms to succeed. By bringing these two kinds of literature together, motivated by the two case studies – we hope to not only judge these histories against the Resource Partitioning theory but also offer insight into how firms achieve partitioning and provide some insight into the viability for craft wood producers. We initially define craft wood as non-commodity products.[2] Examples could include doors, windows, mouldings or even flooring. Often, the differentiating features of these products are psychological in nature. They elicit feelings of value beyond the simple use value of the product.

The coffee and beer industries were selected because of the rapid consolidation on the back of scale in production, media and capital markets in the 1960s and 1970s. Starting in the 1970's, both beer and coffee saw changes that created space for small and medium sized producers to thrive,

[1] These mechanisms include the specialized abilities of smaller firms to provide customized services that offer better value to the customer and aspects of the organizational identity of the provider that are appealing to the customer, distinct from the characteristics of the good or service itself.

[2] While it is agreed value-added as a term represents the difference between revenues and costs (sometimes distinguished between whether this includes fixed costs), there is no common or agreed-upon definition as to what constitutes a value-added firm in forestry. In some cases, distinctions are made between primary wood producers (which use logs as a primary input) versus secondary producers (who use some type of intermediate product as an input. We define a value-added firm not by the type of input but by the ability to generate a margin 2 to 3 times greater than the manufacturing cost, including fibre input costs.

resulting in an explosion of new businesses in the 1990s[3]. Many of them were driving economic development in smaller population centers. Importantly, much has been written about these developments, not only in the academic literature, that provides rich detail into how these producers evolved and the various strategies employed, including the challenges they faced. [4] This allows us to address a gap in the existing literature as, to a large degree, there is a tautological explanation to RPT: partitions form for some reason that create space for small firms in mature markets, while at the same time, the presence of these small firms indicates space has opened up, without explaining in detail how this happens and what role smaller firms play in creating this space. We do this by moving from the higher sector-level theories to a firm-level perspective to identify what firms need to do to succeed.

There is an extensive literature exploring the idea of Critical or Key Success Factors, defined as those that are important determinants of organizational success or failure (Leidecker and Bruno 1984). Rockart (1979) defines these factors as "…the few key areas where 'things must go right' for the business to flourish" while Hofer and Schendel (1978) define them as "those variables which management can influence through its decisions that can affect significantly the overall competitive positions of different firms in an industry…and [become] the competitive weapons on which the various forms in the industry have built their strategies". There have been attempts to generalize these factors and develop typologies and methods by which they can be easily identified (e.g. Leidecker and Bruno 1984, de Vasconcellas e Sá and Hambrick 1989). These efforts typically end in a list of attributes specific to the particular sector and often a mix of the kind of technologies employed, organizational capabilities, business planning processes (e.g. strategy development) and idiosyncratic features unique to the sector, making it difficult to generalize and extend it to novel sectors.[5]

We combine this with the perspective of the standard divisions of a business organization as a way to overcome these limitations. These divisions include finance, regulatory, operations, logistics,

[3] Figure 1 in Kinstlick (2011) illustrates the exponential growth curve of craft beer in America starting in the 1990's-one repeated in both craft coffee and craft spirits.
[4] A similar story has played out in the craft spirits space, however relatively little has been written on small-scale distilleries which arrived a few decades later on the coattails of craft beer, so we do not provide an in-depth analysis of that sector but do note that many parallels can be found with the craft brewing story including the effect of favourable regulation, control over distribution, no technological barriers, and an emphasis on marketing and quality. See, for example Kiely 2019; Kiely 2020; Kinstlick 2011 and Risen, 2020; Voronov at al. 2023.
[5] The literature has evolved into applications towards more specific processes, projects or particular cases (see, for example Zwikael and Globerson 2006; Zou et al 2014).

human resources, and sales and marketing. One of the authors was told early in his career that ‘You can’t screw up any of these, but you have to excel in at least one of them for a business to be a success’.

We evaluate the histories of these industries against these organizational divisions to allow us to identify those factors that are key to successful firm strategies in exploiting a niche in a specialized partition. In doing so, we hope this will help provide information to firms that wish to succeed in pursuing such strategies while also adding insight into RPT as to how partitions emerge through the collective efforts of these firms as they carve out that space.

The Third-wave coffee story is relatively straightforward and mainly informative regarding marketing value-added forest products. In comparison, the history of craft beer is helpful in terms of all of the divisions of a business, from regulation to marketing. We start with coffee.

THE STORIES BEHIND COFFEE AND BEER

Coffee

Third-wave coffee is the name given to the developments in the coffee industry that followed the success of Starbucks[6]. Small, independent baristas with full control over the roasting process; these baristas initially focused on fair-trade and other social justice concerns; more recently, they have focused on the geographic characteristics of the bean as the focus of the marketing. Third-wave has been characterized by direct trade, single-origin, and light roasts.

Unlike craft brewing, which initially found commercial success in San Francisco, New York and Boston, Third-wave coffee developed in Portland (Stumptown) (Dundas 2008), Durham, NC (Counter Culture) (Small Business Insight of the Triangle 2011), and Chicago (Intelligentsia) (Cho and Schecter, 2009). Interestingly, these places are affluent but not first-tier cities in the United States. We speculate that the lower capital requirements in coffee, relative to the beer industry, contributed to these businesses being able to experiment and thrive away from the major finance and technology hubs in the U.S. This is a marketing success story more than anything else. We

[6] Folgers-type coffee being the first wave, and Starbucks and other coffee shops with big foamy cappuccinos being the second wave. This second wave was characterized by cozy interiors and consistent, comforting dark roasts.

could not find evidence of significant changes in regulations, capital markets, management talent, or new roasting technology.

In terms of distribution, better sourcing, identification, and data management are needed to track beans through the supply chain. This could easily be accomplished in spreadsheet and off-the-shelf database products and did not represent a significant capital hurdle to the development of these products. The business of early direct trade coffee did not appear to be much different from farmer's market salespeople who spend their winters in tropical climates buying goods from locals and selling them to northern hemisphere customers in between shopping for eggs and strawberries.

The sophistication of the Third-wave business was in their marketing. Seth Godin (2008) and Rory Sutherland (2019) talk about three potential approaches to marketing a product that captures a premium above a commodity:

1. Status;
2. Affiliation (in-group) status; and/or
3. Convenience.

Third-wave coffee started by selling to people who wanted to be affiliated with the in-group of buyers who identified with sustainable farming and fair compensation practices. They subsequently moved up to using more of a status model. People were willing to pay two to three times more for a cup of coffee because of its specific origin at a cool local hangout. Like wine and craft beer, this product does not just give you a pick-me-up in the morning; it gives you something to talk about. This market was created out of whole cloth in a way that the craft beer movement was not. In the heyday of the dark-roast Starbucks days, no one was asking for a single-origin, light-roast, citrusy brew.

The success in capturing a market premium of Third-wave coffee rests on real differences in the chemistry of the beans. Chemistry that is determined by variety and (often high altitude) growing conditions. To maintain the quality necessary to underpin the success of the marketing story, there must be industry-wide coordination to organize the differentiated products and sustain excellence through strict quality control processes. This has been accomplished with the coffee Q-grader program through the Coffee Quality Institute. Q-graders go through rigorous training to be able to consistently assess bean quality, origin and chemical composition through taste and smell. The

Coffee Quality Institute also works with farmers and breeders to continually improve the roasting qualities of the coffees brought to market.

We lead with coffee first because it highlights something important about trying to create a 'value-added' industry. Even with favourable regulations, management capacity, capital, right-sized technology and a distribution system, such an industry still needs buyers willing to pay for the value they receive/perceive, as in the case of coffee, whether it is more convenience, an opportunity to affiliate with people like them, or purchasing an effective status signal.

These latter marketing techniques require a truly differentiated product (in the sense that it is genuinely different than the commodity alternative), a fierce commitment to quality control and effective communication of this excellence to the right individuals. The consumer has to believe that they are getting something of social value backed up by real standards of excellence to consistently pay twice or more for a product than its commodity comparator. A critical facet is that these producers had the retail establishments to capture the value they were creating with their stories. A producer of intermediate products, say coffee bean producers, is unlikely to put the effort into developing this marketing because they have no mechanism for capturing the value from customers. The producers are too likely to be squeezed by the retailer.

Beer

The story of craft beer is more than a marketing story. It features changes in all of the business divisions of a company: (1) changes in regulation; (2) innovative approaches to capital access and formation; (3) significant early management talent; (4) changes in technology; (5) struggles with distribution; (6) an organic marketing movement and (7) early and critical support from educators. This story is told in detail in *The Audacity of Hops* (Acitelli and Magee, 2017), and nearly every article, academic or otherwise, written on the history of craft brewing in America cites this book extensively. We would note that a similar story has also unfolded in Italy regarding craft breweries in terms of their rapid emergence in the mid-1990s out of a highly concentrated and mature sector with little product differentiation (Garaviglia 2022). In the Italian case, the author applies RPT to explain that concentration in the Italian brewing sector created space for these later-stage entries. There is some discussion around factors we also identify as essential, such as distribution. However, it overlooks many details we consider crucial for explaining the emergence of these firms. While changes in demand preferences and the locavore culture in Italy are mentioned, other key elements are left unexplored. Similar to other applications of RPT, it does not describe what firms needed to do–and even what role they may play in creating that culture and demand–that supports their business model and success. This business model approach is key to understanding what firms need to do if they are going to enter the market or create a new market successfully. We now move sequentially through each facet of business.

STRATEGIC BUSINESS DIVISIONS

Regulations

There is no question that regulatory changes enabled the development of the craft brewing industry. These changes appear to be necessary but not sufficient for the sector to succeed. After prohibition, the government required a three-layer system with production, distribution and retail separate. This effectively prevented the business model of the pre-prohibition vertically integrated firms that often had local monopolies. These rules were eventually changed at a state level to allow small breweries to distribute their own products and, by the 80s, to open their own brew pubs to get around the consolidating distributors who were unwilling to carry craft products. In addition to these changes, the legalization of home brewing in 1973 had a large impact on growing a market and changing consumer tastes for beers more exciting than what had been consumed before the legalization. Finally, the federal government created direct financial incentives for small breweries in 1978. The excise tax on barrels was lowered from $9 to $7 per barrel for firms producing less than 2 million barrels on their first 60,000 barrels (Acitelli and Magee 2017).

Capital markets

Institutional investors and commercial lending appeared largely absent from the craft beer movement for the first 10 years. Once investors could see potential value and an established business model, they started to arrive in large numbers by the mid to late 1980s. The initial investment from 1975-1990 ran about $500,000-$1,000,000[7]. A few of the early attempts were bootstrapped with homemade equipment. They proved there was a business model, but 100% of the early firms failed when they attempted to scale beyond their early equipment. As mentioned,

[7] $1 million dollars in 1980 inflation adjusted to 2024 would be $3.79 million.

banks and other institutions had no interest in these investments and the early stakes were cobbled together from friends and family (Acitelli and Magee 2017).

This changed in the 80’s. On the East Coast, in N.Y. and Boston, bankers and management consultants, some with a family background in ‘Big Beer’, got into the business, bringing their own capital. They also used a different business model. Rather than trying to develop their own brewing hardware, they rented excess capacity for custom brewing from traditional American lager producers who were losing ground to Miller and Anheuser-Busch during the worst years of consolidation. This was a winning model with margins twice that of ‘Big Beer’. From an investment perspective, this gave the new craft beer business a credible image (Acitelli and Magee 2017). Out of this was born the Samuel Adams brand, owned by the Boston Beer Company, which is still the largest craft brewery in America.

On the West Coast, this period saw the entrance of money from Silicon Valley, with venture capitalists and engineers wanting to do something more hands-on. They built their own brewing facilities and figured out what scale they would need to operate to make the finances work from the start. They also worked to change regulations to market their product through brewpubs (Acitelli and Magee 2017). These brewpubs, like coffee retail, were critical to capturing enough of the value from their marketing to pay for the necessary capital investments and turn a profit. At this time, established wine-making families from Napa and hop growers from Yakima also entered the business, bringing talent, capital and connections into the industry (Acitelli and Magee 2017).

Management skill

After the first wave of failures, serious finance and management talent entered the industry, among them management consultants from Boston, investment bankers from N.Y., engineers and venture capitalists from Silicon Valley, diaspora from a consolidating commodity beer industry and established families from the wine industry (Acitelli and Magee 2017). Fairly early on, there was also help offered by brewing expertise offered by Big Beer consultants. Joseph Oswades, who invented light beer, helped broker custom brewing deals and answer operational questions for many early East Coast upstarts (Acitelli and Magee 2017).

Technology

New technology played a limited role in the growth of the industry for the first two decades of craft brewing but was critical for its later expansion. In the mid-70s and until the early 90s, brewing equipment was still designed and manufactured for large-scale production. Smaller equipment could be obtained from Central Europe, but it was too expensive for someone trying to expand their garage homebrew operation into a business. The earliest craft breweries welded together systems with used dairy tanks and made use of bottling lines from bankrupt soft-drink companies, where both industries were also undergoing rapid consolidation in California (Acitelli and Magee 2017). Garaviglia (2022) observed craft brewers in Italy using dairy equipment at the start before specialized equipment emerged.

As mentioned above, all of these companies ultimately failed once the growth in their business exceeded the capacity of this equipment. The businesses were profitable and growing, but they lacked the management skills to get a larger scale operation up and running and, in many cases, could not get sufficient financing.

The solution was American made equipment, both for brewing and bottling, but this did not become an established line of business until the number of craft breweries really started to take off in the late 80s and early 90s and equipment manufacturers could be supported by the hundreds of new entrants. What bridged the gap was renting excess capacity from established big beer producers. Within a short period of time the number of craft breweries went from none prior to 1985 to over 1,500 twelve years later; and; then over 2,500 by 2013 (Elzinga et al. 2015).

Distribution

While distribution was separated by law from the Big Beer companies, they still had regional control and the pricing leverage to push around distributors. It was difficult for early craft breweries to get space on the trucks. They had to develop their own sales teams, buy their own trucks and ultimately open brew pubs in order to get distribution channels that worked for them. Garaviglia (2022) notes that big brewers in Italy also controlled distribution. Less detail is provided as to whether or not there were any regulatory changes to support the emergence of smaller brewers, although he does mention in passing the development of specialized brewpubs in Italy, which we suspect played a similar role in opening up local channels and bypassing the larger brewers.

Marketing

There is a similar story to Third-wave coffee in craft brewing. Craft brews are a differentiated product (even bad ales taste nothing like an American lager). Successful brands like Sam Adams were able to maintain very high-quality standards, and they appealed to an in-group. What was different from coffee is that this market developed organically out of the homebrew movement. People who had tried brewing ales, porters and pilsners in their garage had developed a taste for something different. They had their own magazines and clubs. The leaders of the homebrew movement eventually started the Great American Beer Festival, which became an engine of growth for the craft beer industry.

In other words, there was a ready-made market but even in the early days, it was marked by the same growth characteristics in high-margin coffee. They initially appealed to those consumers who wanted to be affiliated with an in-group of beer experimenters, and eventually, beers like IPAs were a status signal for certain cohorts. This was underpinned by quality control, especially at the ingredient level. Industry groups began funding the development of hops and barley that would serve the needs of the craft brewer and be subjected to a different level of quality control[8].

Education

One thing missing from our initial list of business success factors was education. It plays a critical role in both Third-wave coffee and craft brewing. In coffee, the Coffee Quality Institute plays a critical role in both educating and certifying the experts in the field who do the grading and they are also involved in developing consumer tastes. In beer, two people played a pivotal role in developing talent and educating the next generation of brewers. On the East coast, in Boston and New York, this was done privately by Joseph Oswades through his consultancy. On the West coast, a professor at UC Davis, Michael Lewis, made a brewing library accessible, trained many of the brewmasters for the second and third generations of craft breweries in the United States, and spent

[8] It is interesting to note that we see this across the food and beverage sector. In organics and the 'natural' food movement self-organized industry groups serve to educate producers, work to improve profitability, develop new varieties and breeds and maintain control quality. In field crops, the oldest field crop organization is the Rodale Institute (https://rodaleinstitute.org/) and in the livestock business the Holistic Management Institute (https://holisticmanagement.org/) has played a leading role in changing the beef business. They seem to be differentiated from similar organizations in the forest products sector by their relative lack of emphasis on lobbying government and looking for regulatory change.

countless hours mentoring new craft brewers. It is difficult to see the industry develop with level of quality and professionalism without their contributions.

PRACTICAL IMPLICATIONS FOR VALUE-ADDED WOOD PRODUCTS

What lessons can be learned from these industries? One distinctive aspect of the coffee and beer industries is that they represent high-value/low-volume growth. This is one possibility for growth in the B.C. wood products sector, which mature manufacturers dominate, and where there has been considerable interest for a number of decades in growing the sector[9] (see past reports and current initiatives such as B.C. Ministry of Forests 2021; 2024; Schultz et al. 2013).

To generate these insights, we return to what makes these craft sectors distinct from our analysis. This is useful for several reasons: first, it gives us a way to define better what we mean by craft wood as it helps us distinguish these firms from others in the value-added wood sector that are pursuing alternative commodity strategies (for example, wood pellets) and by identifying what firms need to do to successfully become ‘craft wood’ producers. Second, this enriches resource partitioning theory in showing how this ‘craft lens’ can be used to show how smaller firms simultaneously generate and exploit space that separate them from the commodity firms. Thirdly, we then draw upon the expanded theory and these examples from other mature industries to hypothesize what could be done to support the growth of a value-focused sector generally (or in B.C.).

What makes craft craft?

Margins, margins! Creating a greater willingness to pay! In order to do this, from our reading of the coffee and beer histories, the fundamental thing that firms must excel in is being able to passionately create psychological value beyond use value associated with their product that enables the firms to capture a price sufficient to pay higher labor and capital costs per unit. In coffee and beer this runs two to three times the commodity product price. This requires:

[9] “We have been talking about value added for decades” BC Premier Horgan in 2022 at the announcement of yet another new economic plan for the BC forest sector (cited in Bourgeois 2022).

1. Real quality or service improvements that differentiate from the commodity product that give buyers one of the following:
    a. Status;
    b. In-group affiliation; or
    c. Convenience;
2. And control of the consumer relationship.

When we extend this definition now to craft wood, we mean the production of wood products that entrepreneurs can create connections and product characteristics that consumers are willing to pay a premium for above commodity market prices. And that they are then able to capture that premium.

Two factors are vital in meeting these criteria: marketing and distribution. Where we see firms successfully exploiting resource partitions, we also see them addressing these two factors. IKEA is an excellent example of a firm that managed to build a company around at least two of these together. They made furniture shopping more convenient for those willing to do some assembly and created an in-group affiliation.

Marketing

The anthropologist David Graeber wrote in his 2013 paper, *"It is value that brings universes into being"*(Graeber 2013) that ultimate power comes from accumulating value within a system and defining what constitutes value for that system. In business, a genuinely great marketer will determine what constitutes value for a market segment. As discussed above, this is frequently done by defining what status looks like or creating a new in-group, a new sense of belonging. Ingvar Kamprad and his team at IKEA managed to hit convenience and in-group feeling in the development of his firm by generating a value for which people were willing to pay a premium. Having a differentiated product with superb quality control is necessary to maintain this value over time.

Distribution

IKEA clearly controls distribution, which is one of the keys to its success. We have also found examples of craft wood producers in B.C., where custom wood home builders have achieved this[10], and there are also examples of manufacturers using design and placing innovative products directly into showrooms.[11] It is more difficult to find other producers in B.C. that have been able to do so[12]. For this reason, we are somewhat skeptical about laminated timber products currently seen as promising craft-wood-like margins for laminated timber producers. Ultimately, the businesses that capture the value in the laminated timber business will likely be design and build architectural and engineering firms. It may make sense for them to backward integrate into the manufacture of laminated timber products, but standing on their own, there is no mechanism for these firms to capture the potential value.[13]

Education

One factor that comes across in our analyses of successful craft producers that is not specific to firm strategies is education. In reviewing the craft beverage industries, education of both the public and industry members is critical to growth and is invested in heavily by industry associations. In the case of craft brewing, UC Davis provided essential resources for early start-ups to understand the fermentation process. However, this was not an explicit aim in funding Michael Lewis's professorship. We also saw it in educating consumers about the quality of good coffee.

Resource partitioning

In craft brewing and coffee roasting, small producers have succeeded in partitioning the market. They did so by tapping into a latent demand for products that differed in material ways from what was on offer. Quality and other aspects mattered more than price. Contrary to Carroll and Swaminathan (2000), who argue that the independent and small size of craft brewers was the main

[10] And in the case of PanAbode, also creating value through cultivating an in-group affiliation and identifying it as a status symbol. Refer to PanAbode website: https://panabode.com/

[11] Refer to TimberTiles: https://timbertiles.ca/

[12] We are aware of one firm that was attempting to capitalize on convenience-marketing the ability to produce small orders for contractors and builders in a timely fashion-but they do not appear to have been able to translate that into a durable business advantage. And have since backed away from that distribution channel..

[13] Although there does seem to be ability with customized CLT to capture some additional premia as they are still custom-designed for their end use application (relative to the European market where mass timber products have been standardized). There is also some evidence form the paper sector that producers can create niche products for which they receive a premium (Nelson et al 2003), although it is unlikely to be at the margins we use to define craft products.

appeal to customers, the example from craft coffee and the larger craft brewing stories point to the product itself, not necessarily who made it. A similar example of this approach can be drawn from an examination of the organic farming industry, where similar elements developed: initially an in-group affiliation associated with the production (and consumption) of this type of food to a culture built around it and as a status sign. Sikavika and Posner (2013) apply RPT to argue that a partition has not emerged here, and root their argument is the idea that the organizational identity of the producer creates space and that, in this case, to achieve that identity, farmers must remain small. Our analysis would suggest that if smaller producers are unable to capture the premium, it may have less to do with their size but their inability to create value that distinguishes them from other producers and distribution channels.

In the coffee and beer industries, they created product categories with an identity or in-group built around them. This in-group identified with the consumption of products physically differentiated by their chemistry, particularly aromatics that provide a different experience relative to the commodity products in the mature part of the industry. Growth in the craft sub-sector is supported by further consumer education and partitioning into coffee roasters who focus not only on aromatics but sourcing (e.g. fair trade, frog friendly, volcanic, etc.) or in beer where some breweries have focused on organic or locally sourced inputs. Growth in these sectors also requires more skilled labour – more roasters and more brewers with an emphasis on quality rather than minimum cost quantity. As a group, both brewers and roasters pool funds into research that helps cultivate more specialization and partitioning along the lines of that specialization[14]. We hypothesize that this caters to the desires of different consumer subsets so that they are willing to pay higher premiums for products that justify the higher input costs. Craft producers can ask for a higher price point for their products and cover higher costs by maintaining a direct connection with the consumer. That is, they control their distribution channels. We would expect to find these features in how firms have been able to carve out space in these commodity-based industries. There is a simultaneous quality to creating resource partitions: that potential/latent demand must exist for craft products, but then that needs to be catalyzed, both by educating/creating awareness and willingness to pay for those products and then being able to reach the consumer to achieve the

[14] E.g. partnerships that the Coffee Quality Institute has cultivated https://www.coffeeinstitute.org/partnerships/our-collaborations. Or the Brewer's association funding a hop breeding program with the United States Department of Agriculture https://www.brewersassociation.org/association-news/investing-public-hop-breeding-program-future-hop-brewing-industries/.

margins to sustain the higher costs/overcome the diseconomies of scale. It is likely for these reasons that certified wood has been unable to capture the promised premia; they ultimately remain insufficiently distinguished from commodity products, and the suppliers are further back in the supply chain, not in control of distribution, and as seen from the example discussed earlier, the identity of the supplier, contrary to some elements of RPT, may not be sufficient to generate a premium.[15] Even where there are unique aspects to the input, relying on that to create products that are either naturally limited (e.g. spalted maple) or burls, with veneers and technology, there is the ability to manufacture products that mimic/share attributes of higher-valued species and appearance (e.g. clear lumber). In order to generate and sustain the necessary margins, you need to be 'close enough' to the consumer to capture that value and educate them or show them how that value is being created- whether through status, an in-group affiliation, convenience or some combination.

There is more to consumer preferences than just appearance regarding wood products. Jonsson et al. (2008) showed that solid wood products have higher perceived value than panel products and composites, and consumers also preferred solid wood for other feelings that it generates relative to other products. In a focus group study of wood use in interior design, Strobel et al. (2017) found that the physical features of the wood are more important to the consumer than ethical or environmental considerations. The desirability of the physical properties of wood could be leveraged to create in-group/status premia.

Therefore, the relative ease with which different wood product industries can partition and thrive using a craft model likely depends on whether they create a product experience which can be valued at a premium for their products based on generating an in-group or status signal in their product quality and marketing. One challenge is that the frequency of beer and coffee purchases is much higher than home construction or renovation. Homeowners often talk about what they would like to renovate in their home and design decisions that they would like to make frequently. Influencing the consumer purchase decision by establishing an in-group or status would require being a part of that conversation – being the type of person who will make a renovation with the new wood finish details, etc. Partnering with fashionable interior design firms or social media

[15] For example, Taan Forest Products testing a market status test by selling custom cut lumber with FSC certification from the homelands of the Haida Nation, despite not owning a sawmill, but it is unclear whether they have been able to benefit from that premium, lacking control over distribution.

influencers may be one way of achieving this with a brand, even if it is not possible to have a direct relationship with a customer in the showroom. Once established, growth depends on consumer education and the development of a skilled labor pool that can serve the subsector. Control over distribution and consumer touch-points are essential for sustaining a craft industry. This may be achievable with pre-fabricated homes, cabinetry, millwork, and finished fencing products, but it is likely difficult to achieve in lumber and sheet goods.

Business support and policy

What does this mean for craft wood? We have pointed to the importance of marketing in generating psychic value and the importance of distribution. We argue that the other factors typically raised as barriers in promoting a value-added sector (accessing capital, fibre, technology) are less critical. We believe firms can solve these problems (Grace et al. 2013). However, on their own, value-added craft wood firms are tightly linked to local markets, and the firm's growth (and the growth of a segment as a whole) will be limited unless a wider market can be accessed. Most of these firms are specialized and small to medium-sized enterprises, so large marketing campaigns will not be cost-effective without broader marketing collaboration.

Returning to our B.C. example, this would mean a shift in focus by the B.C. government from marketing lumber (a declining commodity) to advancing markets for other wood products through organizations such as B.C. Wood and Forest Innovation Investment. Emphasis would also be paid to promoting/marketing how wood can create these desirable living spaces and reflect the status and association with desirable lifestyles, recognizing that we are not trying to market 2x4 wall framings, which anyway are hidden away behind drywall. This would create a more prominent brand awareness that would help smaller firms as they create their own brands by giving them something to tie into. So, in this case, we anticipate that the marketing opportunity will revolve around these customized work and living environments in which wood quality is a feature.

CONCLUSIONS

Our review of the history of craft coffee and beer suggests that for there to be growth in the craft wood sector, they will have to find ways of differentiating their products and marketing these differentiated products in such a way that it creates psychic value for consumers, capturing that value by controlling distribution and the management of the consumer relationship and using education as a means of building the required skill sets and deepening consumers understanding of what is possible with wood. The relative ease with which different wood product industries are able to partition and thrive under a craft model likely depends on whether they can charge a premium for their products based on generating an in-group or status signal in their product quality and marketing. Once established growth depends on consumer education and the development of a skilled labor pool that can serve the subsector. Control over distribution and consumer touch-points are essential for sustaining a craft industry. When these things are accomplished it provides the necessary conditions to partition the market and create the possibility for craft-wood producers to succeed. In British Columbia and elsewhere, craft wood offers an opportunity for growth in a sector dominated by a late-stage commodity industry. This paper provides some principles that may help the entrepreneur start a wood products business in B.C. or beyond, as well as existing businesses looking to innovate their current production.

CONFLICTS OF INTEREST

The authors confirm there are no conflicts of interest.

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