Can Niche Agriculturalists Take Notes from the Craft Beer Industry?

Andrea E. Woolverton and Joe L. Parcell

This industry-level case study focuses on the growth cycles of craft brewing, a niche industry. The research case is defined as the craft beer industry evolution including the surrounding institutional and consumer environments. The research goal is to provide insight for niche agriculturalists by examining the case of the successful niche craft beer industry. First, the environment surrounding craft beer reemergence is analyzed. We examine the current state of the craft beer industry with a focus on competitive and logistical forces. We then highlight critical success factors of the craft beer industry and suggests how these factors can be applied to niche agriculture. Conclusions regarding the craft beer industry are drawn from both published documents and craft beer industry discussions. The primary craft beer industry "success" factors deemed transferable to niche agriculture include: 1) indentifying a consumer-driven niche opportunity; 2) engaging in marketing strategies leveraging consumer "hobby consumption" within the niche; 3) leveraging established industry logistics; and 4) participating in unified advocacy regarding both marketing and regulatory lobbies.

This industry-level case study focuses on the growth cycles of craft brewing, a niche industry. The research case is defined as the craft beer industry evolution including the surrounding institutional and consumer environments. The research goal is to provide insight for niche agriculturalists[1] by examining the case of the successful niche craft beer industry.

The need for new insight stems from the observation that agricultural producers market within highly concentrated processing industries such as beef-packing (CR4 = 81 percent) and pork-packing (CR4 = 59 percent)[2] (Hendrickson et al. 2001). To compete, producers attempt to capture profit by creating niche consumer products sold through venues such as farmers markets, direct sales, and collective action targeting larger market opportunities up the value chain (DiPietre 2000). Success stories can be found, but at the same time, many individuals have found niche production and marketing to be difficult.

The research problem is that few prescriptions exist for successful niche marketing, particularly within concentrated industries. From 2001 to 2005, USDA Rural Development awarded in excess of $100 million in agricultural producer value-added grants (Federal Register 2001–05). Table 1 lists a sample of these USDA Rural Development funded projects. Many state governments and non-profit agencies also have contributed monies to stimulate niche and value-added business projects in addition to individuals' investments. It appears that consumers demand niche foods with a gourmet, environmental, or health focus in addition to brand-name mass-produced foods. As one example, retail organic sales have grown 20 percent or more each year since 1990 (Dimitri and Greene 2002). Still, little is known as to whether niche production and marketing is a viable strategy, long- or short-term, for these producers.

Agricultural producers have given little attention to similarly structured sectors and niche-market development within these sectors. The craft beer industry, a sub-industry within the U.S. brewing industry (CR4 = 91 percent), provides an interesting and applicable example of niche-market reemergence within a highly concentrated industry.[3]

[1] The term "niche agriculturalist" refers to anyone engaged in producing and/or marketing a niche agricultural product.

[2] Concentration ratios are industry concentration measures which identify the percentage of total market sales accounted for by a number of leading firms—in this case, the four leading firms.

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[3] Craft beer is defined as beer produced using 100 percent malted barley, in contrast to the 30–40 percent rice or corn "adjunct" used by mass-producing breweries. A microbrewery is defined as a brewery producing less than 15,000 barrels of beer annually for public consumption. A regional brewery is a brewery producing between 15,000 and 2,000,000 barrels.

Table 1. Sample Value-Added Product Marketing Development Grant Recipients (2001–2005).

Year	Grant commodity focus	Award amount
2001	Marketing case-ready lamb meat	$499,997
	Marketing specialty pecans	$131,870
	Vegetable processing	$75,000
2002	Marketing salmon	$18,896
	Ethanol processing	$150,000
	Birdhouse production	$130,000
2003	Marketing IP cotton clothes	$337,400
	Organic dairy processing	$246,500
	Marketing branded plum juice	$500,000
2004	Marketing soy flour	$95,000
	Marketing deli cheeses	$150,000
	Marketing masa flour	$350,000
2005	Wine processing	$80,000
	Marketing extra-virgin olive oil	$150,000
	Biodiesel production	$150,000

Source: Federal Register (2001-05).

The craft beer industry is a $5.7 billion industry constituting 3.8 percent of the total beer industry (non-craft domestic, craft, and imports) value in 2007. Since its reemergence 20 years ago, the craft beer industry has seen continuous sales (barrelage) growth. Though the 50-percent growth numbers of the mid-1990s have passed, the craft beer industry continues to see volume growth in a relatively flat beer industry (McMahon 2004); overall, the craft beer industry grew 12 percent in 2007 (Brewers Association 2007). Niche agricultural producers can hope to reach craft beer industry success and stability, but how realistic is this goal for commodity agriculture?

Our goal is to provide strategic insights to niche agriculturalists. The first three elements of this case study focus on the craft beer industry reemergence and success. First, the environment surrounding craft beer reemergence is analyzed. The environmental analysis focuses on the brewing industry, the beer consumer, and the regulatory environment of the mid-1990s. We examine the craft beer industry today with a focus on competitive and logistical forces. We then identify craft beer industry success factors. These factors are applied to niche agriculture ventures. This case study highlights critical success factors of the craft beer industry and suggests how these factors can be applied to niche agriculture. Conclusions regarding the craft beer industry are drawn from both published documents and craft beer industry discussions.

The brewpub is a restaurant-brewery that sells the majority of its beer on site (Brewers Association 2005).

The Environment Surrounding Craft Beer Reemergence

The following analysis captures the environment surrounding the craft beer industry reemergence. The brewing industry background highlights the concentrated industry in which craft beer emerged. The beer-consumer and the brewing-institutional-environment discussions provide an understanding of consumer and regulatory trends that facilitated the craft beer industry reemergence.

The Brewing Industry and the Craft Beer Consumer

Mass-produced, well-known domestic beers are sold by a majority of restaurants, carried by many retail grocers and liquor stores, and found in local drinking establishments.[4] The majority of United States beer consumers choose among brands of mass-produced, pilsner-style beer. Common large-scale brewed beers found on-tap include Budweiser, Bud Light, Coors Light, and Miller Lite, to name a few. Of course, beer selection, as with food, varies by geographical region.

The 20th century brought mechanical refrigeration, pasteurization, and transportation improvements; striving for scale economies through mass-production made sense for brewers. European-style brews and breweries had been eliminated by these consolidation trends. As mass-producing breweries grew, they could capture scale gains, but they could not accommodate regional tastes satisfied by varied brewing styles. In the late 1970s, U.S. consumers' beer palates were exposed primarily to the lager and pilsner style beers presented by the leading mass beer producers. Thus, in many cases, beer consumers were left with imported beers or homemade ales to satisfy the demand for a more full-bodied beer.

Today, the brewing industry is highly concentrated, with 94 percent of the market share held by four brewers. Between 1947 and 2000, the number of mass-producing[5] beer companies dramatically decreased from 421 to 24 (Tremblay and Tremblay 2005). Of the current 24 independent brewers, Molson Coors Brewing Company[6], SABMiller[7] and, particularly, Anheuser-Busch, dominate the industry, with either Budweiser or Bud Light accounting for one in every three beers sold in the United States (Tremblay and Tremblay 2005; Turczyn-Scheppach 2005). The level of concentration in the brewery industry is not unlike that for sectors within the agricultural industry today.

Many argue that the flavor, tradition, and culture of beer were eliminated along with many of the smaller brewers (Tremblay and Tremblay 2005; Brewers Association 2008). The common on-tap beers such as Budweiser, Miller Lite, and Coors Light are pilsner-style ales and are brewed using large-scale industrial processes and adjunct[8] ingredients which create a more neutral taste appealing to the general palate. In 1995, Boulevard Brewing Co. entrepreneur John McDonald said, "If you look at why breweries are having a renaissance today, it's because beer had become too much of a commodity" (Brewers Association 2008).

While the supply of European styles may have been drastically decreased, consumer preferences for these ales were still intact. By definition, a niche opportunity for various regional tastes was inadvertently created because the demand for more robust beers was not being met by mainstream brewers. Commercial, all-malt (euro-style) brewing was reintroduced to U.S. beer consumers in the late 1960s (Edgar 1995). Production and consumption began to accelerate until the late 1970s and early 1980s.

The Brewing Regulatory Environment

The brewing industry is a highly regulated industry. The Twenty-first Amendment legalized alcohol production; this amendment essentially allows states full control over grain alcohol including consumption, sales, and transportation. While most control issues such as distribution and consumption controls remain state-specific, broad legislation changes

[4] This statement is conditioned on the fact that most counties are open, which indicates that private alcohol sales are legal. This idea of availability would not hold true for closed counties where alcohol sales are state controlled. However, many closed counties allow open restaurant sales.

[5] Defined as production over 2 million barrels.

[6] Adolph Coors Company and Molson merged in 2005.

[7] South African Breweries and Miller Brewing merged in 2002.

[8] Adjuncts refer to unmalted grains used primarily because they provide extract at a lower cost in addition to greater product stability, chill-proof qualities and greater brilliancy.

across several states have aided commercial craft-brewing growth.

A major craft beer industry catalyst was the national home-brewing legalization in 1978. Many pioneers in the craft beer industry such as New Belgium, Sam Adams, and Sierra Nevada began brewing as homebrewers.

Brewpub legalization has been a recent legislative development. In 1984, six states allowed brewpubs; by 1990, brewpubs were allowed in 30 states, and in 1999 all 50 states had legalized the existence of brewpubs (Tremblay and Tremblay 2005). This legislation partially guided the geography and growth associated with the brewpub phenomenon.

Craft brewers are afforded federal excise tax advantages. Large brewers (over 2M barrels) are federally taxed at $18 per barrel. Small brewers, however, are federally taxed at $7 per barrel for the first 60,000 barrels (Alcohol and Tobacco Tax and Trade Bureau 2006). This special treatment results in a potential $420,000 federal tax savings.

The Craft Beer Industry Today

How is it possible that a niche industry—craft brewing, currently valued at over $5.7 billion—reemerged and succeeded within the highly concentrated, highly regulated brewing industry? The "silver lining" in a concentrated industry benefiting from scale economies may be that when a firm reaches a critical production size, shifting production, distribution, or marketing often becomes cost prohibitive when moving away from the firm's core competencies. As niche market opportunities arise, the larger firms have less production flexibility to meet small-scale demand opportunities. Total profits from these niche opportunities may not be large, but the potential may be large enough to incentivize entrance for limited set of entrepreneurs.

To better understand craft beer industry dynamics, this discussion focuses on craft beer industry expansion, contraction, supply chain and demand drivers. Anonymous industry sources were consulted in addition to industry publications for an applied perspective.

Craft Beer Industry Expansion and Contraction

Operating craft brewers numbered 1,406 in 2007 (Brewers Association 2007); in 1985 there were 30. The 2007 industry consists of 54 regional specialty breweries (3.8 percent), 377 microbreweries (26.8 percent), and 975 brewpubs (69.4 percent).

There was much volatility in the industry with the early momentum of the 1980s. The net industry gain of 1,376 craft brewers across the last 20 years has taken place in cycles. Figure 1 provides insight to the overall craft beer industry entry and exit dynamics. A peak opening year for microbreweries and brewpubs was 1996. The volatile growth of the late 1980s and early 1990s is often compared to the "dot-com" boom and collapse.

Home-brewers were able to enter the industry as

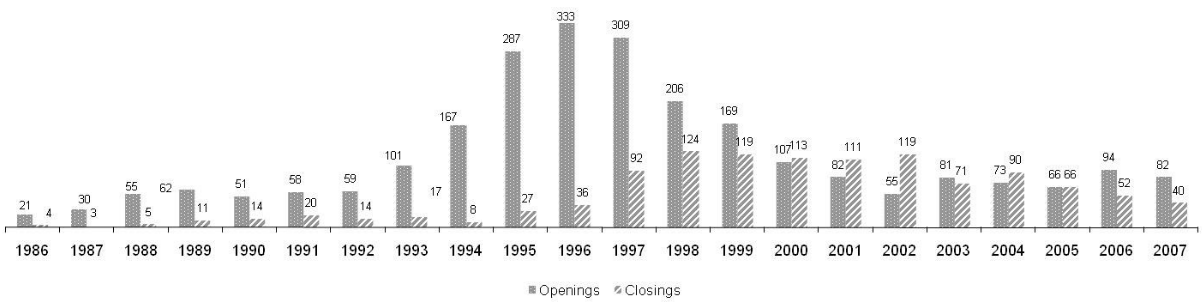

Figure 1. U.S. Microbrewery and Brewpub Openings and Closings, 1986–2007.

(Brewers Association 2007).

legal entities without significant capital investment by small-batch brewing through contract brewers. Many of these brewers entering during the boom did not offer a quality product and had difficulty competing with the more focused microbreweries.

Gradual brewpub legalization and a growing consumer craft beer "hobby" demand prompted mass entry into the brewpub restaurant model. The brewpub brings the niche products—craft beer—to the consumer in a social environment coupled with complementary food products. Unlike contract brewing, brewpubs required large capital investment in brewing equipment in addition to standard restaurant facilities. Both high endemic industry failure rates and difficult economic times are intensified by large capital requirements for brewing equipment that can be in excess of $200,000 (Gorodesky and McCarron 2006).

Entry by mass-producing brewers has also been evident. Three major mass-producers (AB, SAB-Miller, and MolsonCoors) either introduced house craft beer brands or bought ownership in existing craft beer brands during the mid-1990s industry peak. While success in these ventures is uncertain, any mass-producer entry provides competition to the regional craft brewers given the larger brewers' resources.

While the craft beer industry as a whole has seen much volatility in entry and exit, many of the larger operations have been in business for much of the industry's duration. Each of the ten top-producing specialty brewers has operated for at least 15 years. Many craft brewers have made the natural expansion into the "regional specialty brewer" bracket. This trend continues.

Growing sales do not necessarily suggest a growing distribution area. Some large brewers, such as Boulevard Brewing Co. of Kansas City, Missouri, have few intentions to distribute nationally (Boulevard Brewing Company 2006). Others, such as Boston Beer Company, have embraced a national presence by developing new seasonal and specialty brews each year to remain anchored in the craft beer segment.

Craft Beer Logistics and Competitive Forces

Agricultural niche-market challenges and opportunities lie within the entire agricultural value chain. To assess how agricultural niche markets might develop, there is value in visiting the craft brewery value chain.

Craft brews command a premium price compared to mass-produced beer. In the Missouri market, a six-pack of craft beer can range from $6.99 to $12.00. Table 2 details the average cost structure of both mass-produced and craft beer according to Tremblay and Tremblay (2005). This cost structure

Table 2. Mass-Produced and Craft Beer Cost Breakdown and Industry Sales Growth.

	Domestic premium beer		Craft beer		
	Growth	Percent	Growth	percent	Ratio
Ingredients	0.65	4	1.05	4	1.61
Labor and production	1.94	12	4.21	16	2.17
Packaging	2.75	16	3.42	13	1.24
Advertising and management	1.30	8	2.39	8	1.83
Brewer Profit	0.97	6	2.63	10	2.71
Retail and distributor markup*	5.84	36	10.01	38	1.71
Taxes and shipping	2.76	17	2.63	10	0.95
Retail Price ($)	16.21		26.34		1.62

Source: Tremblay and Tremblay (2005); Brewers Association (2005).

*This is the combined mark-up. Domestic retail mark-up has been stated 12-18 percent and craft beer retail mark-up has been suggested as 25 percent according to industry sources.

prefaces how changes in the craft beer value chain can affect the craft brewer's profit levels.

The production of craft beer primarily involves the procurement of malted barley, hops, yeast, and water. Yeast is often grown on-site and water is procured locally. The world hops market is fairly tight, with demand equaling, and often exceeding, supply (USAHops 2005). Thus hops are bought from brokers or forward contracted by larger craft brewers two and three years in advance (Grossman 2005).

Larger craft brewers have not indicated that hops availability is a primary concern. A large firm such as Anheuser-Busch is concerned about the availability of bundled quality attributes. For example, Anheuser-Busch has the storage capacity for millions of bushels of malt barley. The cost for large-scale brewers to change ingredients and thus flavor is such that great investment is made to avoid such situations, whereas a craft brewer has more flavor flexibility due to the variety of beer styles produced.

Malted barley (malt) procurement is much less concrete and appears to be more exposed to both selling and buying power. Craft brewers purchase malted barley from one of three major United States and Canadian "maltsters." Craft brewers compete with non-contracted mass-producers for the available spot-market malt. Malt availability and competition is an issue which has justified a USDA-funded report investigating the feasibility of local malt growers supplying craft breweries (Food Processing Center 2001)

Distribution is primarily a brewery rather than a brewpub issue. Distribution is said to be the craft beer value chain "bottleneck" between producer and the final consumer (McCormick 2006). Each state mandates distribution laws; the three-tier system is in place in many states: 1) brewers and importers, 2) wholesalers, and 3) retailers. Direct distribution is often allowed for start-up breweries, but the brewery must switch to a distributor once a specific volume is reached. The three-tier system results in intertwined distribution and on- and off-premise[9] slotting and promotion.

Consolidation has been evident in the alcoholic beverage distribution industry for over three decades. The previous excess-capacity distributing segment has transformed into a consolidated industry where many distributors carry full portfolios. Distributors can be looked at as regionally regulated monopolies; brewers must distribute through the regional distributor in place. These regional distributors often already carry "flagship" products of mass producers which are higher-volume, lower-margin products.

Competition in distribution is strong. While the wholesale margins are higher for craft beers—approximately 25 percent versus 12–18 percent—mass-produced beers are quite competitive in terms of volume. The 2:1 sales-to-volume ratio (mass-produced to craft) needed to compensate for smaller margins is not a problem for mass-produced beers. More importantly, perhaps, are the market power forces found in distribution. Certain mass-producing brewers have been found urging their distributors to discontinue distributing various craft beers (Jaquiss 1998).

Distributing through non-traditional distributors and specialty shops and by opening brewpubs are ways that craft brewers have attempted to compete in a concentrated industry. Some craft beer brewers have also forward integrated into distribution. This strategy, however, does not work in all markets; success depends on regional demographics and the ability to minimize conflicts of interest between house brand and distributed labels given the interplay between distribution and retail marketing.

Gaining retail shelf space is also a concern for craft brewers. An industry that began with keg sales in local restaurants and bars (on-premise) has turned into a retail (off-premise) force as well. Industry estimates indicate that 25–50 percent of microbreweries and regional specialty brewers sales are off-premise (Adams Beverage Group 2004).

Market power forces are also present in retail space, but consumer demand is a more dominant force. Retail liquor managers have indicated that shelf-space allotment is based primarily on consumer demand rather than on percentage of sales volume. For instance, a beer accounting for 50 percent of the retail sales volume will not receive 50 percent of the beer shelf space; a caveat is that space allotment will likely vary by outlet type. One leveling aspect of retail slotting between small and large brewers is that retail slotting fees are illegal in

[9] In the beverage industry, on-premise is defined as away from home (such as bars and restaurants) and off-premise is defined as retail/at-home consumption (such as grocery and convenience store purchases).

many states. Prime retail shelf space is prime real estate to the brewer. Without slotting fees, the retail outlets can more easily decide shelf-space allocation based on consumer demand and beer sales void of the revenue from slotting fees.

Successful craft beer promotion takes on a much different flavor than mass-produced beer promotion. An important observation is that the marketing competency of most beer distributors lies with promoting mass-produced beer. The average mass-produced beer is marketed in "beer towers" and is most commonly sold in the 30-pack unit. This "volume discount" method does not work for craft beer; the respective beers consumers are quite different (Tremblay and Tremblay, 2005). Effective craft beer merchandising focuses more on appealing to the hobby consumer through visual information and tasting. When a distributor carries both mass-produced and craft-brewed varieties, the merchandising methods can conflict and lose effectiveness (Grossman 2005; Reid 1997).

Generally, direct advertising is not a large portion of the craft brewer's marketing budget compared to that of mass-producers. This has been partially due to many craft brewers' philosophy of "not being everything to everyone" and "making quality beer and letting it sell itself" (Grossman 2005). Craft brewers do invest in branding through packaging and regional awareness. Capturing new consumers through innovative labeling is an observed craft beer trend. Brewers such as New Belgium sponsor annual events including the Tour de Fat. The annual Great American Beer Festival in Denver, Colorado is an industry-wide event that showcases American beer where craft brews are a predominant focus due to the wide variety of styles. Also, various websites and magazines exist to discuss and evaluate craft beers. Collectively, these events, resources, and ideas serve as a tool to promote the industry as a whole.

Beer, like many agricultural products, exhibits seasonal demand cycles. Figure 2 shows an example of the seasonality in St. Louis. The summertime consumption increases usually benefit lighter lager beer such as the mass-produced beers. To compete, many craft brewers leverage the craft beer consumers' flexible palates and introduce spring and summer seasonal beers. "Seasonal beers" facilitate craft beer "hobby consumption"; generally, craft brewers introduce a limited availability beer style unique to each of the four seasons.

In short, craft brewing is an example of entrepreneurial persons who realized opportunities in the presence of industry concentration. As with many industries, consolidation has occurred, enterprises have both entered and exited, and competition has prevailed; lowering cost through economies of scale provides longevity. This is realized even for a niche-market participant. Generally, a quality beer and production flexibility for consumer-focused business operations have been the key to staying power in the craft beer industry. Losing strategic focus in the brewing industry, even for niche participants, is detrimental, as mass-producers are anxiously trying to regain any and all lost market share.

Craft Beer Industry Success Factors

The following factors are identified as craft beer industry factors that seem vital to craft breweries' and brewpubs' successes. Factors identified are the capitalization of the general "microbrew" brand identity, the brewpub model, and the regional location and marketing strategy.

"Give me a microbrew"[10]

The consumer trend to experience the "non-standard, non-commercial" has been a crucial element for the craft brew industry. Over the years, trying "microbrews" has turned into a consumer hobby similar to that of wine tasting. Consumers' "hobby consumption" facilitates repeat purchases and new beer-style introduction and acceptance. Consumers often follow a particular style such as a *Pale Ale* or *Hefeweizen* and will try various craft brewers' brands. Even though many craft brewers offer drastically different beer styles, the brewers are unified under the "microbrew" identity which plays a large role in industry-wide promotion such as national and regional beer festivals.

"Give me another"

The advent of microbrews spawned the brewpub as a business. A brewpub microbrewery can be found in almost any city of sizeable population. The number

[10] The term "microbrew" is commonly used by consumers and in restaurants and bars as a reference to non-mass-produced beers.

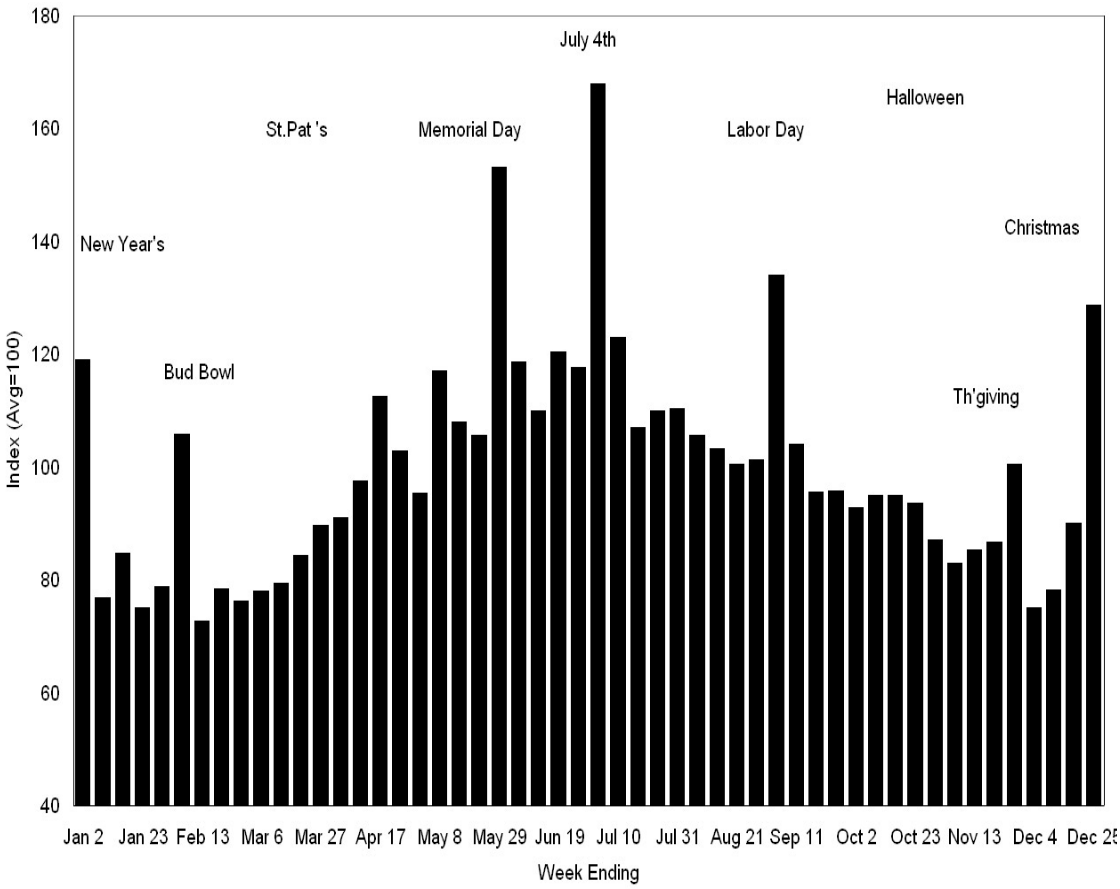

Figure 2. Beer Volume Index Seasonality, St. Louis, MO (2005)—Supermarkets.

(Information Resources, Inc. 2005).

of domestic brewpubs has increase tremendously over the past 20 years, but the net number of operations remained relatively stable between 2000 and 2007 (Brewers Association 2007). Brewpub brewing represents approximately 10 percent of total craft beer production (Morrison 2005).

Brewpubs are a vehicle for bringing consumers and craft brewers together. A definite synergy exists between craft brew consumers and the brewpub model. The brewpub outdoes the average bar-type establishment by offering a unique product that also provides social utility. The consumer is provided the opportunity for consumption of multiple beers, food, and social activities. The brewpub uses craft beers as a drawing card and then provides customers with other goods and services. Most brewpubs will offer "beer tours" (comprehensive sampling of brews) as an event. A typical brewpub has on average a 70:30 food to drink sales ratio (Gatza 2006; Gorodesky and McCarron 2006). The food and local brew product coupling helps increase gross revenues. Industry-level data indicates that an average pub or restaurant proprietorship has a 10.6 percent profit margin (BizStats 2006).

Craft brewers with predominantly off-premise sales have also entered the brewpub business as an attempt to circumvent the distribution issues mentioned earlier. Adapting the brewpub restaurant model decreases distribution costs and captures profit margins that would have otherwise been split between distributors and retailers. Table 2 indicates the average distributor and retail mark-up is 38 percent of the selling price. Brewpub owners retain these margins in-house. At \$85.00 per keg (1,984 ounces), an average bar charging \$3.50 per pint for Boulevard *Wheat* will receive a gross profit margin of \$2.81 per pint. The brewpub margin will be larger due to wholesale-margin elimination. Brewpubs commonly charge \$3.50–\$4.50 per pint with approximately 4 percent production and labor costs (Gorodesky and McCarron 2006).

Location is a key factor for the successful operation of a brewpub. The majority of microbreweries are located in population centers or visitor areas such as tourist sites and college towns (Figure 3). This location strategy draws upon diverse consumer tastes and luxury spending for increased sales volumes. Because most craft beer is brewed on-premise, commodities are processed into products near the consumer, as opposed to much of niche agriculture where processing occurs near production.

"Give me what I expect"

This factor contains two concepts: consistency and franchising. Craft brewers have struggled with consistency; craft brewing logistic and style nuances can impede a consistent brew. Craft brew drinkers, like Budweiser drinkers, have come to expect taste and quality consistency, especially from regional specialty brewers. It appears that the surviving craft brewers have dealt with this issue and are able to

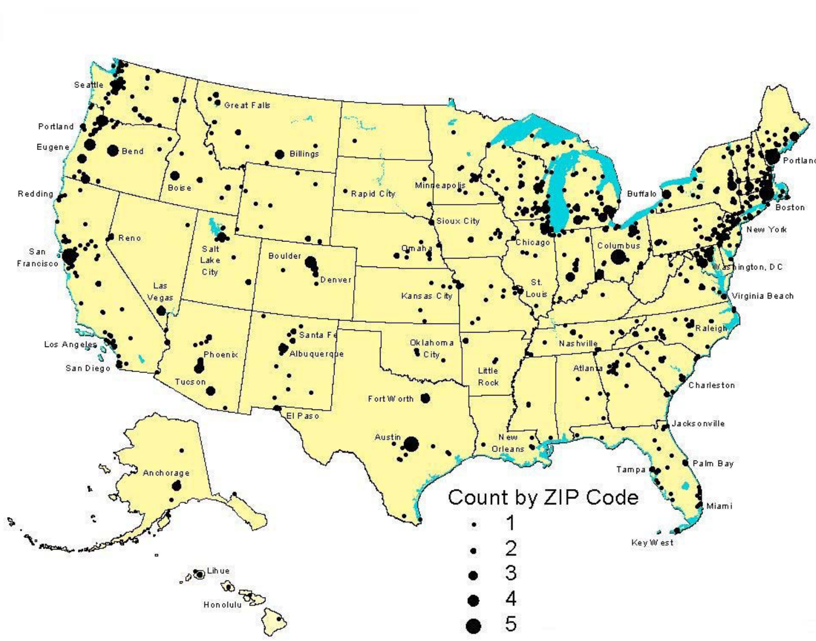

Figure 3. Geographical Dispersion of Domestic Microbreweries.

(Brewers Association 2005).

provide many consistent brews in terms of taste and quality.

However, craft beer drinkers do appear to be more forgiving. Brewpub brewing especially is expected to vary by batch and style. Brewmasters change and ingredients can be less consistent when procured through small-scale suppliers. Consumers' forgiving nature provides the brewers more flexibility when introducing new brews.

Microbreweries, particularly brewpubs, have had success franchising locations. Franchising allows for economies of scale in input purchasing and lower establishment costs due to a set model. The top ten brewpub groups represent 25 percent of total brewpub sales; five of these groups are corporate (Brewers Association 2008). There are approximately 60 brewpub chains in the United States (Brewers Association 2005). Most remain company-owned. The strategic benefit of brewpub franchising is that franchising satisfies both the consumers who prefer familiarity and those who are seeking a seemingly unique brew and cuisine.

Implications for Niche Agriculture

This section highlights factors that allow success in the craft brew industry and suggests how these same factors might be applied broadly to niche agriculture ventures. The authors feel that a general discussion is more useful than providing specific examples for opportunities applicable only to a smaller agricultural audience. However, Table 3 provides examples of potential factor application to three agricultural sectors.

Several cultural, regulatory, and economic factors have led to the success of the craft brewing industry over the last 25 years. While many lessons can be taken from the craft brewing industry and applied to niche agriculture, it is important to keep in perspective that the craft brewing industry is now undergoing consolidation, franchising, and vertical integration. Basic economic principles such as economies of size, allocative and technical efficiency, and competition have roles in longer-run competition regardless of industry.

Table 4 summarizes craft brewing success factors and proposes how niche agriculture might adopt these factors. Craft brewing success was enabled by an entrepreneurial perspective change from one of concern to one of optimism and by identifying niche opportunities that industry giants were not serving and did not find it profitable to do so at that time. This change of focus serves as the basis of the development and growth in the craft beer industry. Agriculturalists in general have been slow to adopt the "opportunism" view of concentration.

The primary craft beer industry "success" factors deemed transferable to niche agriculture include 1) indentifying a consumer-driven niche opportunity, 2) engaging in marketing strategies leveraging consumer "hobby consumption" within the niche, 3) leveraging established industry logistics, and 4) participating in unified advocacy regarding both marketing and regulatory lobbies.

The craft beer niche opportunity was recognized and marketed to concentration-weary consumers. These consumers were prepared to embrace brewing differentiation. While consumers enjoy the perks provided by scale economies (low cost), they also have utility for variety. Herein lies the opportunity. Craft brewers have provided these niche consumers a truly differentiated product category within the U.S. beer sector, identified broadly as European-style ales with an American flair. However, adept marketing and consumption strategies are catapulting craft beer consumption from the aficionado to the mainstream consumer, resulting in substantial craft beer sector growth and revenues.

The craft brewing industry quickly organized under a unified voice to promote, market, and lobby in the interest of craft brewing. A key factor for niche-agriculture success is the formation of an advocacy entity. Advocacy is not necessarily about natural versus bio-engineered, organic versus chemical treated, or sustainable versus mega-farms. Instead, advocacy is about a unified voice for promoting, marketing, and lobbying on behalf of all niche markets for a specific commodity or sub-category of the commodity. "Angus beef" can be viewed as an agricultural equivalent to the craft brewing organization. Many "Angus beef" brands are marketed, and the Angus association plays an influential role in promotion and production oversight for all brands and uses of Angus beef. While the Angus association is more targeted than the Brewers Association, this is an example of agriculturalists cooperating in an effort to create a differentiated agricultural product through both production and marketing.

Regulation has played a key role in the growth of the craft brewing industry. Homebrew legalization

Table 3. Niche Agriculture Factor Assessment and Recommendations.

	Agricultural Sector		
Factor	Meat (e.g.. Beef)	Produce (e.g.. Spinach)	Dairy (e.g.. cheese)
Industry			
Concentration	Concentration predominantly exists within processing.	Organic production concentrated with large CA producers.	Many producers with mandatory marketing orders.
Organization	Beef producers with commodity focus; need niche focus	State-level, commodity-focused associations (traditional and organic).	Artisan cheese society exists.
Regulation			
Legislation	Lobby for more-specific definitions of organic, regional, and/or specialty which would facilitate adding value in these areas.		Regulation-supported policies don't allow reasonable small-producer diversity in production without penalties; e.g., 100% DFA delivery or milk grade reduction due to marketing order interpretation.
Taxation	Lobby for small, regional producer-focused tax benefits which may parallel current tax benefits given to producers organizing in a particular fashion (e.g.. cooperatives).		
Product			
Consistency	Difficult to compete with larger producers in terms of consistency or freshness given large producer efficiency in production and transportation to consumer.	Consumers accept innovative varieties within produce (e.g.. Grapples).	Typically a consistent product. Possibly focus on fewer cheese types with variance across these types.
Quality		Small producers can compete.	Small producer can compete given time-sensitive production.
Uniqueness	Innovation is within organic (antibiotic-free) bounds, which does not facilitate a departure from commodity to differentiated product.	Currently, primary differentiation is organic.	Effective differentiation across cheese styles; less differentiation across producers.

Table 3. Niche Agriculture Factor Assessment and Recommendations (Continued).

	Agricultural Sector		
Factor	Meat (e.g.. Beef)	Produce (e.g.. Spinach)	Dairy (e.g.. cheese)
Distribution			
Wholesalers	Leverage existing distribution channels of large packers/producers via contracts.		
Marketing			
Target Market	Consumers with higher disposable income motivated to purchase regional, high-quality foods (possibly organic) . These consumers will tend to be more forgiving in consistency and enjoy trying new varieties, but continue to expect quality.		
Advertising	Reliance on national beef campaign. Focus on niche (product, region, etc.) branding and events.	Typically, not advertised or advertised as a commodity. Current demands indicate that consumers are ready for branded differentiation, particularly given recent food-safety issues.	Differentiate between local and artisan; artisan aggregates international and domestic. Leverage "artisan-style" cheese to host wine/cheese tastings.
Location	Located far from consumer	Large-scale far from consumer; small-scale close to consumer via farmers marketing outlet	Focus on local cheese producers
Bundling	Bundling is possible in a less tangible sense. As craft beer "bundles" production and consumption, niche agriculture can also "bundle" purchase and leverage "artisan" association and private label for regional specialty venues (e.g.. wineries).		
Retail Access	Retail market is commodity-focused with little penetration from differentiated (branded) meats.	Retail market is commodity-focused with organic distinction; small-producer access primarily via farmers markets. Need more-prominent organization to access larger retail outlets.	Success in maintaining "specialty" cheese section; lobby for local sub-section

Table 4. Summary of the Craft Brewing Industry.

Factor	Comment
Industry	
Concentration	Brewing industry CR4 ratio of 94 percent placed economies of size, consistency, and market share before innovation. This allowed for home brewers to innovate and become today's microbreweries and brewpubs.
Organization	Craft brewers have united to education, market and lobby i.e. Association of Brewers and Craft Brewers Conference.
Regulation	
Legislation	Homebrew legalization in 1979.
Twenty-first Amendment	Places much of the regulatory power at the state level.
Taxation	Craft brewers receive "sin" tax break on production up to a certain level
Procurement & Production	
Location	Production takes place close to, or at, point of sale
Inputs	Purchased through broker
Co-products	Co-products from craft brew production are minimal, so not critical to overall profitability.
Innovation	Craft brewmaster is a skilled individual that focuses on brewing beer and not other parts of the business
Product	
Consistency	Craft style of brew (euro-style) often allows for forgiveness in flavor deviation (particularly for brewpubs), while pilsner (large brew) is much less forgiving with flavor deviations.
Quality	Craft brews tend to be a filtered product versus pilsner style unfiltered product sold by large breweries
Uniqueness	A craft brewer can brew a new flavor every batch.
Distribution	
	Regulation requires distribution through wholesale channels, which minimal vertical integration.
	Some craft brewers have distributed through distributors with a traditional wine focuses to capitalize on needed merchandising competencies.
Marketing	
Location	Microbrew and brewpubs located near population centers or tourist spots
Bundling	Brewpub bundles craft beer and restaurant, industry contacts indicate food sales to liquor sales are 70:30.
Slotting fees	Many retailers are not allowed to charge slotting fees for liquor, which allows craft beers to better compete based on profit per sales area.
Target market	Craft brews initially focused on local and regional with relatively few current national marketing initiatives.
Consumer	Consumers of craft beer are forgiving in consistency and can also be novice brewers purchasing brewing kits, which allows consumers to feel connected to the craft brewing industry.

was without doubt a substantial driver of craft brew success, but the facts that the Twenty-first Amendment provides regulatory power to the states instead of to the federal government and that tax breaks are in place for small-scale craft brew production are very important.

What might niche agriculture advocate for in terms of regulatory change? Most food-quality-assurance oversight, labeling issues, quality standards, and interstate-transport decision-making occur at the federal level. Depending on the agricultural product, it may be beneficial for states to take an expanded role in regulatory issues. This might involve putting in place more stringent regulatory issues in order to further differentiate niche-branded products—e.g., regulated supply controls through production protocol and labeling.[11] Furthermore, state and federal value-added grants and tax credits might be better applied to value-added product sales instead of to business-development purposes.

Craft brewers offer a product differentiated by both style and geographical region. Product consumption is often positioned as trying a new style in a new region, a pastime. Craft beer consumers are often more forgiving in terms of beer consistency and tend to value novelty. As primarily small-scale producers, craft brewers leverage production flexibility to meet the demand for changing beer styles and flavors. Varying the product not only satisfies the consumers' needs but also acts to increase revenues by drawing repeat customers. Craft brewers have strategically used production flexibility to increase beer consumption during traditional seasonal lulls in beer consumption by offering various "seasonal" brews. The niche agricultural sector should consider how to develop products that can be forgiving in consistency, changed to meet seasonal demand fluctuations, and connect to the consumer's utility for differentiation from the national-branded products.

Niche agriculturalists, like craft brewers, cannot compete with corporate giants through a low-cost strategy. They can, however, offer a product and engage in a marketing strategy that is difficult for the larger competitors to mimic. Product marketing should focus on taste and quality first, and on volume second. Location is also important. Based on what we learned from the craft brewing industry, it seems certain that those producers whose focus is "regional" will have greater success. In addition to being in close proximity to target consumers, producers must diversify or partner to offer multiple products. The fact that many retailers are not allowed to charge slotting fees on alcoholic beverages is a key to distribution and marketing-chain success of craft brewers. Possibly, agriculture advocacy groups interested in positioning niche agricultural products in retail outlets and competing with larger producers should look for ways to mitigate retail-slotting fees. Given the premium prices garnered by the craft beer industry, it is likely that niche agricultural products could follow suit and compete in retail margins if well-positioned. Premiums within the organic-produce sector allude to the profit potential for other niche agricultural products.

The agriculture industry often lacks an appropriate vehicle for moving niche products efficiently between producers and consumers. For the agriculture industry to effectively develop this vehicle, a socializing environment is needed that offers something different. However, issues such as joint products and perishable products bring into question whether farmers can adapt these elements. When combined, lack of attention to these two factors can be detrimental to the operation of the business. Issues such as new product development for less-desirable joint products and extending shelf-life of perishable products need to be solved initially. In addition, this vehicle will require multiple agriculture products from a diverse set of producers in order to meet consumer culinary desires. Breweries where beer is stored in-house and food products are purchased from vendors do not have this problem.

Distribution channels are different for alcoholic and food products. The regulated alcohol industry primarily requires wholesalers to deliver the product, which consumes an additional portion of the consumer's dollar. Agricultural producers do not have this requirement, which can allow for some transaction-cost elimination. Of course, food distribution is highly consolidated. There may be opportunities for regional independent distributors owned by several separate niche agricultural interest groups serving a defined market.

In general, craft beer procurement and production characteristics are not as directly applicable to

[11]This is broader than an appellation where the climate, soils, and topography determine product differentiation and create supply controls—e.g., Napa Valley wines or Walla Walla sweet onions.

niche agriculture. However, craft brewing exhibits particular production characteristics that are key components to promoting the craft beer-consumer relationship. Most craft brewing occurs in close proximity to consumption. The craft brewmaster is a skilled individual who generally focuses on brewing beer. In contrast, procurement and production practices in niche agriculture vary by commodity and product. Production and procurement often are one and the same within agriculture. Production location is dependent on the commodity, and in most cases may not need to be on premise

What will happen with conventional agriculture? Large processors have already purchased smaller regional name brands. The value of such brands has yet to be determined. The lack of natural exposure to niche agricultural products on a large scale, like large brewers realized with craft brewing, also may be a limitation. It is clear that some in the craft brewing industry chose partnering with or selling to a large brewer as an expansion—and sometimes an exit—strategy. Niche agriculturalists should leave this as an option.

We make two important claims with this research on relating concentration within the brewing industry to concentration in the agriculture industry. First, an alternative view of concentration—i.e., what consumer demands do firms overlook and have difficulty meeting as they become larger?—can lead to business opportunities. Second, a key to business success in filling niche market roles is the need for a business model to bring producer (or processor) and consumer together to leverage multiple aspects of the consumer's niche-product utility. Only through such a model can value be added to economically sustain the business concept. Finding the correct business model appears to be the challenge within sectors of the agricultural industry.

The caveat to this study and its recommendations is that niche-market opportunities will not preserve all persons within agriculture. Even today we see individuals or groups attempting to extract economic rents through identity preservation and direct-marketing opportunities. These persons envision opportunities, but finding the correct business model for value extraction is a must.

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