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Theme Overview: Global Craft Beer Renaissance

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While the exact definition of craft beer is arguable, most sources emphasize traditional styles and innovation as well as the scale of production (i.e., "small"). Yet this definition may be limited, particularly if we seek to define "craft" on a global scale. Large producers (referred to as macro breweries) in particular tend to view craft beer as a market segment irrespective of brewery size.

Regardless of definition, the growth in this hard-to-define industry segment is difficult to ignore. From country to country, a general decline in overall beer consumption has been coupled with significant growth in craft beer consumption. According to the Brewers Association, 5,234 of 5,301 U.S. breweries identify as craft breweries. Craft market share was 12.3% in 2016, up from 5.7% in 2011 (https://www.brewersassociation.org/press-releases/2016-growth-small-independent-brewers/). Similar trends have been seen in the UK (https://www.theguardian.com/business/2016/oct/03/uk-breweries-on-rise-craft-beer-sales-surge), Australia (http://www.beerandbrewer.com/craft-beer-will-continue-soar-2017/), and even China (https://www.ft.com/content/c872e93a-f4cd-11e6-8758-6876151821a6?mhq5j=e2).

Articles in this Theme:

This has led many to pronounce a craft beer revolution. In some regards, *revolution* is a misnomer, as it implies the emergence of something new. All over the world, commercial brewing began as a craft industry, focusing on small, traditional, and innovative production. The more appropriate description may be a craft beer *renaissance*, as we are observing a reawakening, rather than the birth of the craft beer industry.

This theme focus on the global craft beer industry. Garavaglia and Swinnen discuss the global craft beer market, specifically focusing on trends in various countries around the world. They highlight drivers of the growth in the global craft beer market and discuss how larger macro breweries are responding to the global increase in craft beer popularity.

Toro-Gonzalez provides insights into the growing craft beer industry in Latin America, where per capita beer consumption is currently low. Changes in industry structure and income growth may make the region a prime area for craft beer growth.

Finally, Berning, Costanigro, and McCullough examine the U.S. craft beer industry. As craft beer production has grown steadily for the past 20 years, a natural question results, primarily how craft brewers might develop and maintain marketing value. This article discusses the potential for craft brewers to develop their collective reputation, providing examples of where this already occurs and challenges to further development of collective reputation in the industry.

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The Craft Beer Revolution: An International Perspective

Christian Garavaglia and Johan Swinnen

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Keywords: Beer, Entry, Industry Structure, Small Firms

Craft brewers and their customers have transformed global beer markets over the past two decades, ending a century of consolidation that resulted in the domination of a few global multinationals and the homogenization of beer. They started small and isolated but ultimately transformed a global industry.

The terms “craft brewery,” “artisanal brewery,” “microbrewery,” “independent brewery,” “specialty brewery,” and “local brewery” are sometimes used to identify breweries that “recently” started brewing “different” types of beer on a “small” scale, distinguishing them from larger breweries mass-producing beer that often have been in business for more than a century and have survived the consolidation process of the 20th century. Given the diversities among countries and their historically different traditions in beer brewing, no single definition is generally accepted.

The American Brewers Association (ABA) defines a craft brewery as “small,” “independent,” and “traditional.” Small refers to the size (annual production less than 6 million barrels). Independent refers to ownership (less than 25% owned or controlled by an alcohol industry member that is not itself a craft brewer). Traditional refers to the beer production, in which 50% or more if the beer brewed derives its flavor from “traditional” or “innovative” brewing ingredients and their fermentation.

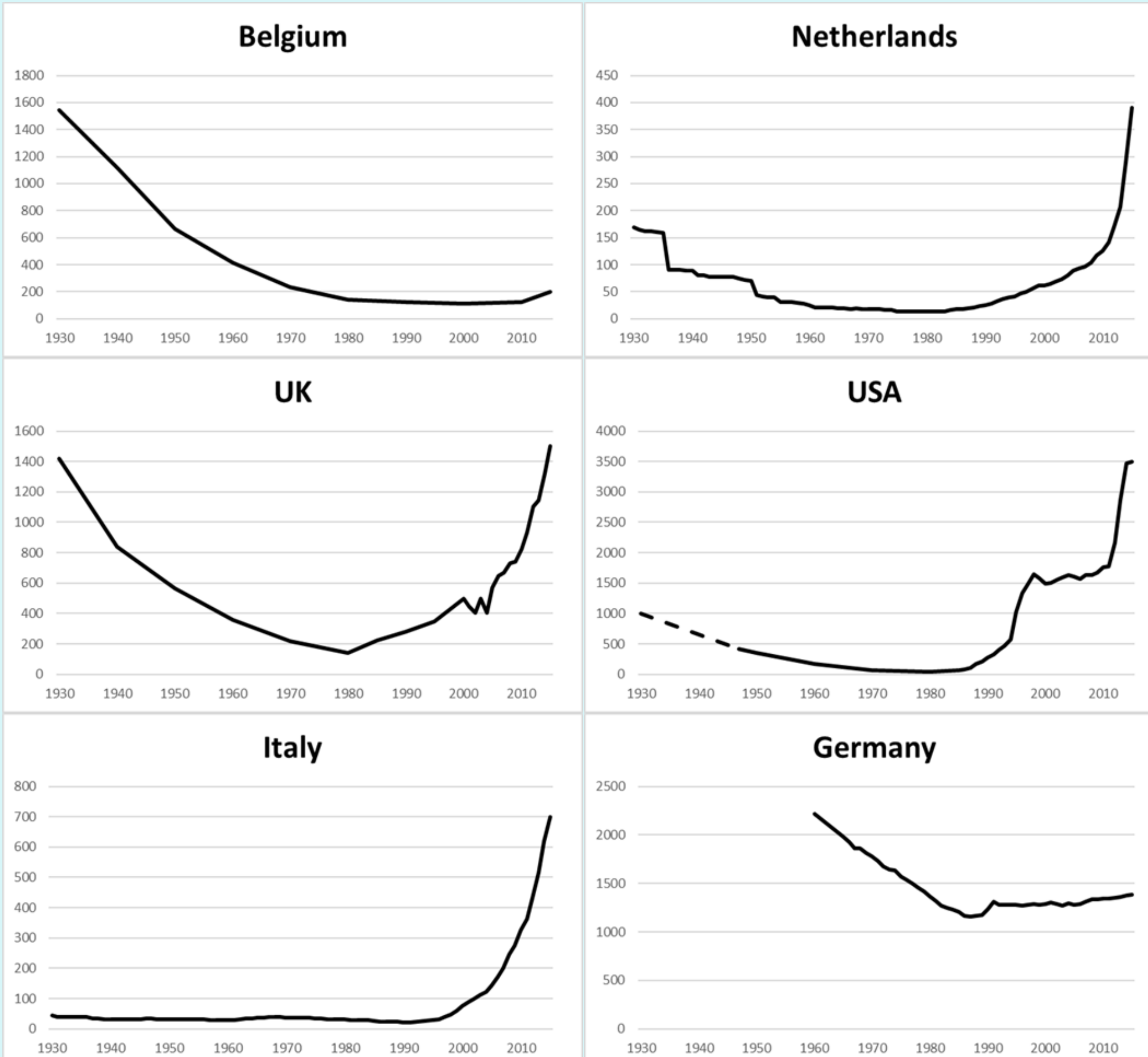
But in fact, any definition has its problems. For example, “tradition” and “innovation” are context-specific concepts. Many of the mass-produced beers, such as Budweiser or Stella Artois have a centuries-old history (tradition) much older than many craft beers. What is “innovative” in some environments can be standard (“traditional”) in other places. For example, producing stout beer may have been innovative in a small Californian brewery in the 1990s but probably not in Ireland, where Guinness dominates the beer market.

Also, the definitions of the scale of a “craft” or “micro”-brewery are related to the size of the country (beer market) in which they operate. For example, in Italy the maximum size is 200,000 hl (170,502 barrels), while in the United States it is 6 million barrels (7,038,000 hl). If the U.S. size limit is used as a benchmark, in many countries most mass brewers would satisfy this criterion. Any definition remains subjective and open for interpretation.

Concentration and Homogenization in the Global Beer Industry 1900–1980

The craft beer revolution was preceded by a long period of consolidation and homogenization in the global beer industry that began in the late 19th or early 20th century and lasted for most of the 20th century (see Figure 1). Breweries merged, were acquired, went bankrupt, or simply stopped producing. In Belgium, the number of breweries declined from more than 3,000 in 1900 to 143 in 1980. This consolidation was even more extreme in the United States, where the number of macrobreweries fell from 421 in 1947 to only 10 by 2014, and a few beer styles dominated an increasingly homogenized market.

Figure 1: Number of Breweries, 1930–2015



Source: Swinnen and Emmers (2017).

The reasons for this consolidation are well known (Swinnen, 2011; Tremblay and Tremblay, 2005). First, technological progress—such as automated production; the acceleration of packaging; more automated brewing, fermenting, and conditioning processes; and better distribution through improved road networks—led to greater economies of scale (Adams, 2006; Gourvish, 1994). Second, bottom-fermented beers (lagers)—which were introduced in the first part of the twentieth century—have higher fixed costs than top-fermented beers (ales) because they require artificial cooling during fermentation and a longer maturation time. This caused smaller breweries using bottom-fermented beers to exit the market. Third, large-scale advertising and promotional activities led to increases in advertising costs. Brewers with a large-scale operation (in terms of output and geographic availability) were able to advertise through expensive outlets, such as commercial television, has a significant marketing advantage (George, 2009). Fourth, global mergers and acquisitions contributed to a dramatic consolidation of the beer industry in the 1990s and 2000s, creating market-dominating global multinationals: AB Inbev, SABMiller, Heineken, and Carlsberg. As a consequence, beers became more standardized and homogeneous worldwide. The concentration was reinforced by the takeover of local breweries by multinational brewers such as AB Inbev, Heineken, and Carlsberg.

The Craft Beer Revolution

In some countries, it is relatively easy to identify the start of the craft revolution. In the United States, Elzinga, Tremblay, and Tremblay (2017) identify 1965, when Fritz Maytag bought the Anchor Brewing Company of San Francisco, as the beginning of the movement. Similarly, van Dijk, Kroezen, and Slob (2017) date the start of the craft beer revolution in the Netherlands to 1981, when the first new brewery since World War II was launched. The first brewpub in Italy was established in 1988 (Garavaglia, 2017), and in Australia, craft brewing started around 1980 (Sammartino, 2017). Almost everywhere, the early years were slow, but the movement picked up as more new craft brewers entered the market.

Table 1: Number of Microbreweries, 1985–2015

Country	1985	1990	1995	2000	2005	2010	2015
Australia	3	34	26	43	93	172	358
Canada						277	610
China						20	46*
Germany[a]	894	867	1,005	1,024	1,062	1,112	1,148
Germany[b]	632	639	759	844	894	987	1,058
Hungary					90	50	64
Italy		1	7	61	129	313	669
Japan			82	288	237	206	220*
Poland						20	100
Slovakia						14	45
Spain		1				46	409
USA	37	249	998	1,469	1,591	1,756	3,490

Note: Germany[a] and Germany[b] are the number of microbreweries if micros are defined, respectively, as “breweries that produce less than half of average production” and “breweries with yearly production <10.000 hl.” A single asterisk (*) indicates that the number of microbreweries from 2014 was used.
Source: Swinnen and Emmers (2017).

It is more difficult to identify a specific moment in countries with a long tradition of “specialty beers,” such as Belgium and the UK. In the UK, the origin of the craft beer movement is typically associated with the emergence of CAMRA (Campaign for Real Ale) in the 1970s. In Belgium, the current movement can also be traced back to the 1970s, although Belgium has always to some extent been a “craft beer nation” because of the number of small producers and its long tradition of producing a wide variety of beer styles (Swinnen and Briski, 2017). It is even more difficult to classify the beginning of craft beer movement in Germany, given the historical presence of small and local producers (Depenbusch, Ehrich, and Pfizenmaier, 2017). For these countries without a specific, identifiable moemnt, a good indication of the takeoff of the craft beer sector is the number of breweries. These countries all have a clear time period when new, mostly smaller, breweries started producing new specialty beers. Worldwide, the number of breweries declined during much of the 20th century, a trend that was not reversed until new craft breweries were established.

There are significant differences among countries in the emergence and growth of craft and microbreweries (see Figure 1 and Table 1). In countries where post-World War II brewery consolidation was stronger and where craft brewers emerged earlier—such as United States, the UK, and the Netherlands, where the total number of breweries was at its lowest point around 1980—the turnaround in the number of breweries occurred earlier than it did elsewhere. For example, in the United States the number of craft brewers (37) exceeded the number of macrobrewers (34) for the first time in 1985. Since then, the total number of breweries has grown to more than 3,500, the vast majority of which are craft-type breweries. In Germany and Belgium, recent growth in the number of breweries has not yet made up for their pre-1980 decline. The low point of the curve, when the number of breweries was at its lowest, was also significantly later in Germany and Belgium. Interestingly, Belgium and Germany had relatively low concentrations of breweries in the late 20th century, even though they had had the highest number (by far) of breweries per capita in the 1980s (Table 2): 17.4

Table 2: Number of Breweries/Million Inhabitants

Country	1980	1990	2000	2010	2015
Belgium	14.5	12.6	11.0	11.3	17.6
Germany	17.4	15.5	15.7	16.4	17.0
Italy	0.5	0.3	1.3	5.5	11.2
Netherlands	0.9	1.6	3.8	7.3	23.0
UK	2.5	4.9	8.5	13.1	23.0
USA	0.2	1.1	5.3	5.7	10.9

Source: Swinnen and Emmers (2017).

(Germany) and 14.5 (Belgium) per million people compared to less than one per million people in the United States and the Netherlands.

Today, the number of breweries per capita is vastly different from that of the 1980s. In 2015, the number of breweries per capita in the UK and the Netherlands (23.0) was higher than that in Belgium (17.6) or Germany (17.0), a complete reversal of the situation in the 1980s and 1990s.

Drivers of the Growth of Craft Beer

The birth and growth of the craft beer market was caused by several factors, including demand-side factors, supply-side factors, and the role played by pioneers, consumer organizations, the spread of information and knowledge through networks, and emerging capital and technology markets. The demand side of the beer market has changed significantly since the 1980s. Several factors played a role, but three have been particularly important: (1) increasing demand for more beer styles, (2) increasing incomes among beer consumers, and (3) the organization of consumers in associations focused on experiencing and dissemination information about different beers.

Demand for Variety: A Reaction to Homogenization in Beer Markets

The craft beer revolution came at the end of a dramatic transformation in the beer industry. Macrobrewers chose product characteristics that appealed to as many consumers as possible, resulting in a more homogeneous and milder lager beer. As microbrewers consolidated, craft brewers began to enter the market, filling product niches left by the homogenization of macro beer. Consumers (and society as a whole) began showing an increased interest in local products and environmental and sustainability considerations and a rising sentiment against globalization (and products from giant and multinational firms). The diffusion of organic foods, the spread of geographical indications (such as the EU certifications P.D.O.—*Protected Designation of Origin*—and P.G.I.—*Protected Geographical Indication*), the success of the farmer markets, and the Slow Food movement are a few examples of these trends. The growth of the craft beer market is inherently associated with the growth in consumer desire for variety.

Increasing Income

Craft beers are typically more expensive than standard lagers. Not surprisingly, studies show that high-income consumers are more likely to buy craft beer (Elzinga, Tremblay, and Tremblay, 2015; Gómez-Corona et al., 2016; Murray and O'Neill, 2012). Higher incomes not only stimulate an increase in demand for more expensive products but also stimulate demand for more variety. It is thus not surprising that the craft beer market expanded as incomes increased substantially in industrialized countries in the decades after World War II. This is demonstrated by Bentzen and Smith (2017), Pokrivčák et al. (2017), and Li et al. (2017) who discuss how increased incomes stimulated the craft beer market in Denmark, Slovakia, and China, respectively.

Consumer Associations

In several countries, consumers created associations to mobilize craft beer enthusiasts. The role of consumer associations and communities has contributed to the development of craft beer for at least two reasons. First, consumer associations stimulated the activity of the first entrants in the craft beer segment, sustaining demand for specialized products against mass-produced beer. Second, consumer associations often promoted home-brewing, which played an important role in developing experience among the first entrepreneurs. The best-known example of a consumer association is probably CAMRA in the UK. The success of CAMRA inspired similar organizations in other countries, such as PINT in the Netherlands and Humulus Lupulus in Spain.

Technology and Capital Markets for Small Brewers

The growth of the craft sector and the entry of increasing numbers of small brewers was enhanced by the growing availability of technical equipment and capital allowing brewing on a small scale. In the infancy of craft beer, entrepreneurs faced major difficulties financing their breweries and finding appropriate equipment. The early craft brewers regularly used capital equipment designed for other industries (such as dairy or wine) and adapted it to brewing and packaging or made use of contract brewing as an institutional mechanism to overcome capital and technology constraints. Today, there is a rapidly developing market for craft brewing equipment.

Similarly, as craft brewing revealed itself to be a profitable business, new sources of financing have developed and supported the start-up of new craft breweries. Banks became more familiar with the concept of craft brewing and started providing start-up capital. Crowdfunding has reduced entry barriers for starting up or expanding craft breweries. In addition, venture capital firms in the United States have determined craft brewing to be an interesting investment opportunity, and some regional authorities in Europe have begun providing public funds and incentives to start craft brewing if connected to the development of the local agricultural activities (e.g., barley and hops).

Inspiration from Traditional Brewers

Craft beer pioneers often got inspiration from contacts with foreign countries with a strong beer tradition or where the craft beer scene had already developed. While the initial inspiration went from East to West across the Atlantic Ocean, inspiration currently flows both ways. For example, while the Belgian influence on the craft segment in the United States has been huge, Belgian brewers have recently started copying some U.S. craft beers, especially by using more hops and producing IPAs (Alworth, 2015). Similarly, the first Dutch craft breweries were focused mainly on producing Belgian-style ales, while later entrants have been increasingly inspired by American-style ales.

Regulations

Beer in general has been the subject of many government regulations (Swinnen, 2017). Regulations serve several objectives: enhancing government revenues through beer taxes, protect ingconsumer health; protecting society from alcohol abuse; reducing the price of bread grains; and constraining market power. The growth of craft brewing has had two-way interactions with these regulations. On one hand, regulations have stimulated or constrained craft brewing compared to macrobrewers. Craft brewing has been hampered by restrictive regulations that were tailored to the mass producers, creating entry barriers for the first craft breweries. On the other hand, the growth of craft brewing has induced changes in regulations that have facilitated the subsequent entry of craft breweries. Legalizing homebrewing represented a key factor that facilitated entry of craft brewers in many countries.

Macrobrewers' Respond to Craft Brewing

As long as the craft breweries were considered too small to represent a real threat, macrobreweries did not strategically react to their presence. However, as the beer produced by craft breweries started to gain a larger market share and overall beer consumption either stabilized or fell in traditional beer markets, macrobrewers have responded in several ways.

Craft-Style Beer Production by Macrobrewers

One response among large brewers in many countries to the growing success of craft beer was to produce a craft-style beer themselves. In the United States, the major producers introduced new brands in mid-1990s; these brands explicitly did not display the name of the large company behind these brands in order to distance them from the macro connection. Arguably, the most successful of these brands has been Blue Moon by Coors, where Coors kept a close control on the craft initiative until it became really successful (Swinnen and Briski, 2017). In Denmark, market leader Carlsberg entered the segment of specialty beers with a craft production plant in 2005, the Jacobsen brewhouse. In Italy, the market leader, Heineken Italia, owns (among others) two traditional national brands, Ichnusa and Moretti, which have recently launched a non-pasteurized lager and new flavored beers, called "the regionals," respectively (Garavaglia, 2010). Interestingly, Chlebicka, Fałkowski, and Lichota (2017) note that in Poland "twenty years ago small [breweries] tried to become similar to large [breweries], and nowadays we have a paradox that large [breweries] tell that they are like the small ones."

Takeover of Craft Brewers

Another strategic reaction among macrobrewers has been direct entry into the craft beer segment through acquisitions. While most initial acquisitions of craft breweries were domestic, they have become increasingly international. In the United States, Miller acquired the Leinenkugel Brewing Company in the late 1980s and Celis and Shipyard breweries in the 1990s. Anheuser-Busch acquired an interest in the Redhook Brewing Company in 1994 and Widmer Brothers Brewing in 1997. Interbrew/InBev (the Belgian roots of AB InBev) acquired Hoegaarden and Leffe (both Belgian craft breweries) in the 1980s and Hertog Jan, one of the first craft breweries of the Netherlands, in 1995.

In recent years, AB InBev has acquired, among others, Goose Island in the United States; the first craft producers in Brazil, Cervejaria Colorado; the biggest craft brewery in Colombia, the Bogotá Beer Company; the well-known Italian craft producer, Birra del Borgo; and the Belgian Bosteels brewery, a seventh-generation small family brewery and producer of award-winning Tripel Karmeliet. These acquisitions, in addition to several others, created a substantial portfolio of specialty beers in AB InBev's "craft and specialty beer network." SABMiller also participated actively in the craft takeover strategy: one of their takeovers was the Londoner Meantime Brewery in 2015. More recently, Heineken took over Lagunitas Brewing Company and declared that it would be expanding this brand into the world's first global craft brand. Not surprisingly, these acquisitions have been criticized quite heavily by remaining craft brewers and consumers, who often consider such acquisitions to be a departure from craft origins. Consumer backlash may be one of the largest threats to the takeover spree.

Infrastructure Investment, Free Riding, and Consumer Access

Most craft breweries start off small and serve a small group of local customers. In order to grow they need to find access to customers through retailers and/or bars. This can be difficult if macrobrewers use their ties with bars and wholesalers to prevent craft beer sales (1) because they create competition for their own beers and (2) because they accuse the crafts of "free riding" on their infrastructure investments. Macrobrewers have used their control over bars and retailers to push their own portfolio of beers, including a growing list of own (formerly) craft beers. For example, most beer wholesaling in the United States is done by distributors who concentrate either on brands in the AB InBev portfolio or in the MillerCoors portfolio. Most wholesalers that are authorized to distribute either AB InBev or MillerCoors products also distribute craft beer, but AB InBev recently announced a plan that would incentivize some of its distributors to focus on the sale of AB InBev brands (Mickle, 2015).

Conclusions

The global beer industry is experiencing to a revolution which continues. Consolidation of the traditional breweries preceded the emergence and growth of craft breweries in all countries, but the extent of that consolidation and the size of the recent craft growth differs quite strongly among countries. Both demand and supply factors have driven the emergence and growth of craft beer, including a growing demand for variety of beers after the 1980s, when traditional beers became homogenized and consumer incomes increased. In all countries, craft breweries were initially started by pioneering entrepreneurs inspired by different beer varieties in other countries who often experimented first with home brewing. Associations of craft consumers, craft brewers, and homebrewers helped expand the market by spreading information and experiences and acted as a vehicle for new forms of marketing. Later, the development of specialized brewing technology markets and new forms of finance were important to stimulate the diffusion of craft breweries; in many countries regulations were adjusted in response to the growing craft sector.

This transformation of the global beer industry is not only important for people and researchers interested in beer and brewing but also for those interested in what determines industry structure and economic history. The emergence of new and small craft breweries, the consequent dynamic response of the beer industry, and the changes in consumption provide fertile material for studying industrial organization, institutional change, and economic development.

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The Craft Brewing Industry in Latin America

Daniel Toro-Gonzalez

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Keywords: Brewing Industry, Craft Beer, Latin America, Microbreweries

The Latin American craft brewing industry has the potential for growth and opportunities for investment, especially in the craft brewing segment. This article highlights the industry as a dynamic sector with growth potential for investors and consumers though discussion of consumption preference in Latin America, as well as the current status of beer industry and craft brewing in the region. Finally, an overview of the potential for growth in craft brewing in Latin America is provided.

Alcohol Consumption Preferences

According to World Health Organization (WHO) (2014), Latin American countries are the most heterogeneous on the planet in terms of average preferences for liquor consumption (see also Pierce and Toxqui, 2014; Aizenman and Brooks, 2005). The Caribbean, for example, is recognized for its rum production, while Chile and Argentina are recognized wine producers. But no Latin American country is specifically recognized for its brewing traditions; nonetheless, from 2008 to 2013, beer was the most important alcoholic beverage in the region, with approximately 50% of total production in the alcoholic beverages market.

Analyzing alcohol consumption by country (see Table 1), beer is the most preferred alcoholic drink in 11 out of 23 countries (48%). Spirits are most preferred by 39% of countries, particularly in Central American markets, where populations are more traditionally

Table 1: Market Shares Based on Levels of Alcohol Consumption, 2010 (15+ years)

Country	% Beer	% Wine	% Spirits
Spirits			
Cuba	38.8	2.2	58.9
Dominica	13.7	7.1	77.9
El Salvador	41.7	1.7	56.6
Grenada	29.3	4.3	66.2
Guatemala	41.9	1.6	56.3
Guyana	23.0	0.3	76.6
Honduras	40.1	1.1	58.7
Nicaragua	38.8	0.5	60.6
Perú	46.8	6.1	47.1
Wine			
Argentina	40.7	48.0	5.5
Chile	29.9	40.7	29.4
Uruguay	30.6	59.9	9.5
Beer			
Bolivia	76.8	3.8	19.3
Brasil	59.6	4.0	36.3
Colombia	66.1	1.1	32.5
Costa Rica	59.3	4.7	35.5
Dominican Republic	54.5	2.7	42.7
Ecuador	67.3	1.2	31.5
Mexico	75.7	1.5	22.2
Panama	69.2	4.6	26.0
Paraguay	51.1	18.2	28.8
Puerto Rico	66.6	6.7	26.4
Venezuela	75.6	0.8	23.4

Source: WHO (2014).

inclined to the consumption and production of spirits such as tequila and sugarcane distillates such as aguardiente and, particularly, rum. In Chile, Uruguay, and Argentina (13%), wine is the most popular alcoholic drink (WHO, 2014).

Consolidation of the Beer Industry

At the end of the 20th century, 10 firms produced half of all beer worldwide; by 2012 the same share was divided among only four firms (Howard, 2013). This concentration will likely only increase after the merger between AB InBev and SABMiller announced in November 2015 (AB InBev, 2016). This strategic integration has generated a global conglomerate that controls approximately one-third of the global market. The trend toward worldwide concentration has been mainly driven by economies of scale and horizontal integration. In the case of Latin America, concentration levels are substantially higher, almost double, than in the rest of the world.

Worldwide in the last decade, the beer industry has witnessed intense changes in its market structure. After the mass-produced lager brewing industry, or macrobreweries, standardized its industrial processes and took advantage of economies of scale, craft breweries began popping up globally, revealing evidence of possible structural changes in market conditions.

In 2013, 83% by volume of beer consumed in Latin America was produced by just four countries: Brazil (42%), Mexico (22%), Venezuela (11%), and Colombia (8%). With the arrival of multinational companies to the region over the last two decades, the war to conquer Latin American consumers has intensified. In most countries, the beer markets are duopolistic, dominated by big world players such as AB-InBev, SABMiller, and Heineken.

In 2010, Heineken purchased the brewery division of FEMSA, a firm with operations in several Central American countries. In 2011, Kirin Brewery Company, a Japanese firm, ought Brazilian Schincariol Brewery. In Mexico, AB InBev purchased Grupo Modelo in 2013. The arrival of the world goliaths in Latin America has consolidated the market for mass-produced American lager beer.

However, in spite of the apparently strong trend toward industry concentration and the production supremacy of American lager beers, consumers' interest in new products is increasing. In relation to this shift toward new products, Howard (2013) states that "cultural barriers to global brands in emerging markets, and the rising consumer interest in varieties produced by smaller specialty brewers…" (p. 13) may increase opportunities for small players with differentiated products. Latin America is not an exception, and cultural barriers, income growth, and heterogeneity in consumer tastes may become barriers to the consolidation of a worldwide duopoly.

Traditionally, industries have been characterized as "consolidated" when large companies with high economies of scale make it harder for smaller companies to enter into the market due to cost advantages. The emergence of niche markets result, which is the case for craft beer (Carroll and Swaminathan, 2000; Swinnen and Garavaglia, 2017).

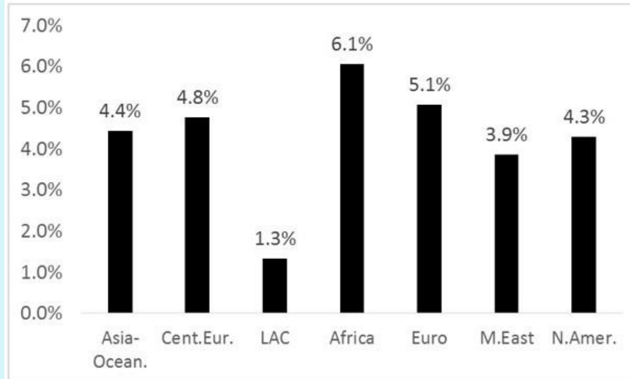
Craft Beer in Latin America

Although large-scale beer still dominates the Latin American market, a new picture is starting to emerge. The main source of recognition for the brewing industry in region is that Latin American beer may be described by three basic criteria (Webb and Beaumount, 2013): it is clear and bland, it is served cold, and it is produced by a big mass brewery, often a multinational company. These characteristics may have generated an opportunity for market development, in which the increase in the number of micro- and craft breweries follows the same structural market pattern witnessed in the North American and European brewing industries. On average, small brewery market share in the region was 1.3% between 2008 and 2013. Meanwhile, the market share for small breweries in the rest of the world was considerably higher, 4.8% on average (Figure 1; Euromonitor, 2015).

For this period, small craft breweries in some countries in Latin America experienced an important evolution in terms of market share compared to mass-produced beer. Argentina, Bolivia, Brazil, Chile, and Costa Rica are examples of countries where small craft breweries averaged more than 2% of the total market share (Euromonitor, 2015).

Despite the low market shares of the craft beer segment in the region, the growth rate has been substantially high: 6.6% a year on average between 2008 and 2013. This is more than twice the growth observed in the regional mass-produced beer segment for the same period (2.8%) and almost double the World Bank's regional GDP growth figure (Euromonitor, 2015).

Figure 1: Average Small Brewery Shares by Region (2008-2013)



Source: Euromonitor (2015).

Craft Beer Industry Potential

The Latin American brewing industry is especially dynamic in terms of its rapid growth. Between 2008 and 2013, the sector grew twice as fast as the world beer market sector, an average of 2.8% versus 1.4% (Euromonitor, 2015). As mentioned previously, Latin American market has reached its maturity due to the consolidation of the mass breweries, and the appearance of small craft breweries indicates a trend toward a more diversified market. In this sense, Latin America and the Caribbean are a battleground for large breweries and a nursery for craft breweries.

Interest in producing and consuming craft beer is recent in Latin America and is growing fast as a niche market, as has happened in other markets around the world. For example, Toro-Gonzalez, McCluskey, and Mittelhammer (2014) analyzed the case of U.S. beer consumption, finding that craft beer consumers are different from those who consume mass-produced and imported beer, with no evidence of substitution among products.

An indicator of the increasing popularity of craft beer is the number of searches reported by Google Trends for the term "craft beer" both in Spanish and Portuguese, Brazil's national language. The number of searches grew by 3% on average every month from January 2010 to November 2016. Between 2012 and 2016, interest in the term grew by 317%. According to Google Trends, Brazil, Chile, Argentina, and Mexico (in that order) are most interested in craft beer among Latin American countries.

In terms of consumption and income, two elements support the initial claim of a sector with interesting opportunities. According to OECD (2014), Latin America consumes almost half as much per capita annually (1.45 gallons) compared to the rest of the world (2.45 gallons). However, this gap seems to be closing; between 2008 and 2013 the total consumption in Latin America grew by 5.8% on average, while total world consumption grew by only 1%.

In terms of income growth, the income elasticity of demand for beer to be elastic in Latin America, where an increase in income of 1% will increase consumer demand for beer by 1.2%. This implies there is an important opportunity for growth in the brewing industry, especially for craft brewers, whose niche market is highly influenced by income level (Toro-Gonzalez, 2015). Income in Latin America is expanding at 3.8% yearly (World Bank, 2017). This is an important element to explain the 42% in total market growth over the last 20 years in the region. It is possible to infer that the market will expand in the near future, given the regional income growth trends (Toro-Gonzalez, 2015).

Based on the available evidence, is not difficult to see that the brewing industry—and specifically the craft brewing industry—has an important opportunity in the Latin American market.

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Can the Craft Beer Industry Tap into Collective Reputation?

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The recent expansion of the U.S. brewing industry has resulted in a multitude of breweries with a variety of beer styles. Consumers now have access to brews made from unique types of grain, hop varieties, and strains of yeast previously unavailable. The demand for craft beers hinges on consumers' expectations and perceptions because product quality is unobservable at the time of purchase. Initially, the Brewers Association (2017a) identified craft beer as "small, independent, and traditional" breweries and consumers interpreted it as synonymous with high-quality products (Adams, 2006). The positive aura of craft brewing piqued consumer interest, generating business opportunities for brewers and ensuring steady growth.

Maintaining the current rate of growth for craft beer may not be so simple, however, as signs of increasing competition and demand softening may already be showing (Swindell, 2017). The craft mystique that propelled industry growth in the past is not likely to persist with the same intensity in the future, for several reasons. For one, as the number of new breweries keeps growing, more inexperienced brewers are entering the market, increasing the potential for lower-quality beers bearing the craft moniker. Indeed, many industry actors have recognized lack of consistency as one of the main challenges for the craft industry (Gorski, 2014). Barring clear and enforceable industry standards, issues with product quality are unlikely to go away.

Another factor working against craft brewers is the concerted investments made in this sector by the largest players. Over the past decade, larger macrobreweries and alcohol companies have tapped into the craft beer market via acquisition. The two largest macrobreweries, Anheuser-Busch InBev and Molson Coors, have acquired multiple craft breweries, successfully gaining market share in the niche craft market. Examples include Chicago's Goose Island Beer Company, LA's Golden Road Brewing, and San Diego's Saint Archer Brewing. With greater access to capital and resources and more extensive distribution channels, macrobrewers can leverage a significant competitive advantage over traditional, "independent" craft brewers.

Macrobrewers are also extending their product lines with beers that embody characteristics similar to traditional craft beer ale styles and marketing them under a "pseudo" or "crafty" brand name. An example is Blue Moon, an American version of Belgian-style wheat ale created by Molson Coors in 1995. These brands often disguise their corporate heritage on their labels (Bennett, 2017). While multi-branding is perfectly legal and common to many industries, many see corporate ownership as incompatible with the independence and connection to community that consumers have come to expect from "true" craft beer (Koch, 2017). Going forward, how can craft breweries gain broader consumer recognition and compete in a market with larger macro and import beers? One possibility is for the craft beer industry to tap into the benefits of collective reputation.

Collective Reputation as a Sign of Quality

Collective reputation is a common phenomenon in the food and beverage industry and arises whenever consumers interpret the distinctive name of a group of producers—most often associated with a geographical location—as a signal of high quality. In many cases, regional advantages in growing or processing play an important role (such as Napa Valley wine, Idaho potatoes, Vidalia onions from Georgia, or Wisconsin cheese). In other instances, a group of producers may have advanced knowledge of a processing technique, often as a result of long-standing regional traditions (such as prosciutto di Parma or Parmigiano-Reggiano) or common, strictly enforced quality standards.

Collective reputation is extremely important in the global wine industry. In France, the Appellation d'Origine Contrôlée (AOC) certification identifies agricultural products, including wine, from distinct geographic regions. Champagne, for example, is a sparkling wine that in many countries can only be labeled such if it is produced in the Champagne region of France and adheres to AOC-designated production practices. Importantly, the AOC guarantees that products also adhere to specific quality standards. In the United States, the Alcohol and Tobacco Tax and Trade Bureau designates and certifies regional wine appellations through the American Viticultural Area (AVA) (https://www.ttb.gov/wine/ava.shtml) system.

Since breweries can rely on individual brand reputation rather than that of a collective group of brewers, why would an independent brewer worry about collective reputation? Collective names have a key comparative advantage in that a shared brand image drastically reduces search and learning costs for consumers. When there are many producers, as is the case for craft beer, it is impossible for consumers to evaluate and learn about the quality of each firm, so individual reputations may be ineffective. But grouping similar producers under a single umbrella simplifies the task (Costanigro, McCluskey, and Goemans, 2010). The benefits are similar to those provided by individual reputations—a collective reputation for high quality will lower consumers' resistance to trying new brands.

These benefits may help breweries stand out with beer distributors and retailers as well. Breweries face limits to self-distribution, so distributor support can be important for gaining market share. However, craft brewers have to compete for limited storage and marketing support offered by distributors. Further, retailers (e.g., bars, convenience, grocery, and liquor stores) have limited shelf-space. In both cases, a collective reputation may help them choose which beers to sell.

Collective Reputation in the Beer Industry

Collective reputation is relatively uncommon or new in the U.S. beer industry, but German and Trappist beers offer two prominent and instructive examples. The worldwide recognition and success enjoyed by German beers can be traced back to the German Beer purity law (Reinheitsgebot), a 500-year-old regulation limiting the ingredients allowed for brewing beer to malted grains, hops, water, and yeast. Even though the original intent of the law was protectionist in nature (beers not meeting the quality standards could not be sold in the German market, see Adams, 2006), the Reinheitsgebot continues to be a popular marketing tool for German brewers and, to this day, acts as a signal of quality to consumers.

Trappist beers provide another example. To be designated Trappist, a beer has to be directly prepared by monks (or be brewed under their supervision) in one of eleven abbeys recognized by the International Trappist Association (see http://www.trappist.be), which also outlines specific production criteria. Most Trappist beers are bottled-conditioned Belgian-style ales adopting the beer style guidelines of Enkel, Dubbel, and Triple (single, double, and triple malting (see http://www.trappist.be/en/pages/trappist-beers). A consumer who enjoys one Trappist beer may be inclined to try an unfamiliar brewery or beer that carries the Trappist label.

Craft brewers in the United States have also worked to build a collective reputation based on geographic identification. Currently, all 50 states, the District of Columbia, and nine cities have established brewers' guilds. In general, the goal of these guilds is to promote and support brewery members using collective social media postings, state/regional beer maps, and sponsored events. In addition, they are often involved with political advocacy for the brewers. In many cases, the guilds provide a "state brewed" label, which appeals to consumers' preferences for "local." However, to our knowledge these guilds do not have any production quality standards and tend to require nominal fees for joining.

Recently, the Brewers Association (2017c) released a label identifying small, independently owned craft breweries as a way to distinguish themselves from breweries owned by larger macrobreweries. While the label promotes brewers with a common ownership structure, it does not verify that their beer meets any specific quality standards.

Limiting Factors and Challenges to Collective Reputation

Even when conditions are favorable, developing and sustaining collective reputations for high quality is far from easy. In the German and Trappist examples, the key to developing and maintaining collective reputation is monitoring and enforcing quality standards. When firms can't be identified or firms are not traceable, the incentive for the individual producer is to cut on costs, produce low-quality products, and extract the rents from the collective name. Moreover, as the number of firms sharing a common reputation grows larger, so does the incentive to free-ride on the efforts of others, driving quality down (Winfree and McCluskey, 2005).

The problem here is that collective reputations are much like common property, and the economic incentive for individual members is to cut down the forest and cash in. Even though breweries can be identified, a large number of uninformed consumers—or the ability to shut down a failing business to open a new one under another label—is sufficient to create an incentive to skimp on quality and free-ride (Fishman and Simhon, 2000). Maintaining collective reputations therefore requires a level of social cohesion among the members of a group or legal enforcement of set quality standards. Menapace and Moschini (2011) show that the concurrent use of trademarks (firm names) and geographical indications sustained by minimum standards and certification can operate as a mechanism to assure high quality in the long term. Of course, the devil is in the details. Finding agreement on standards is far from easy, and it is also important make sure that standardizing practices will not squash creativity and innovation.

Even with quality standards, there is a more fundamental challenge to developing collective reputation among breweries. For beer, quality is not necessarily tied to where the product is brewed, at least not as much as for other food products. That is, regions or localities may not inherently have some comparative advantage over others. In winemaking, *terroir*—the local soil, topography, and climate—is seen as essential to producing high-quality grapes, a necessary condition for making fine wines. But beer ingredients—malted grains, yeast, and hops—can be easily shipped across the globe in their dried forms. As a result, any cachet associated with a particular state or region may diminish over time if the product does not offer something truly unique or special.

As an example, access to a steady supply of clean, pure water can provide brewers with a regional advantage: Coors touts that its products are brewed with 100% Rocky Mountain water. But relatively inexpensive chemical treatment and filtration can level the playing field, especially for larger-scale producers. A Budweiser brewed in their Fort Collins plant will taste exactly the same as one brewed in Houston.

Certain production practices associated with beer styles can also enhance or detract from the perception of the product as well. As an example, Imperial (or Double) IPAs have a reputation for strong yet sweet hops, a robust malty flavor, and higher alcohol content. They are also considered to be some of the best beers in the world. Consequently, the style conveys a sense of quality to craft beer drinkers. Alternatively, American light lagers have traditionally had a reputation among the craft beer community for lower quality. As a result, the collective reputation of U.S. lagers might suffer, regardless of perceived brand reputation. Interestingly, the reputation of craft lagers seems to be improving (Carpenter, 2017).

Building Collective Reputation in the Craft Beer Industry

Of course, no single approach will work for all local realities, but some possible strategies for developing collective reputations in the U.S. craft beer industry do exist, as these examples illustrate. As previously mentioned, regional identification of beer is often tied to the adoption of specific recipes or brewing styles rather than exclusive access to high-quality ingredients. Examples include Belgian witbier and German hefeweizen, English porters and Irish milk stouts, and even the domestic American IPAs. Country of origin alone may provide far too vague a description to create value for brewers, but a combination of country and style could offer a more informative signal.

The idea of using specific inputs or recipes to generate collective reputation is not new, and the choice of hops offers an opportunity for tying the land to a specific region. Hops can display terroir effects similar to those observed in wine. For example, in Wisconsin a very popular hop variety, Chinook (with 5% of total planted acreage), was renamed Skyrocket because of the terroir effect on flavor profile (Brewers Association, 2017b). Another approach is to develop local hop varieties. Idaho 7, a variety bred in Idaho, is currently being used experimentally in brews. This is a great example of Idaho craft brewers trying to grow their reputation by taking advantage of the fact that most craft brewers proudly display the ingredient lists for their brews. One should keep in mind, however, that—lacking official regulations—a craft brewery in Colorado could freely use Idaho 7, so there is no exclusivity in the use of the name.

Another input that could be used to build a collective reputation is malt. Traditionally, malting has been done by large companies on a large scale. But a growing trend of "micro-maltsters"—small, regional maltsters—are malting grains, often locally sourced, for local brewers in support of the craft industry (Keene, 2013). This provides craft brewers with another opportunity to connect their beer to region-specific malts that may also have unique attributes.

Breweries are also playing an ever-increasing role in regional tourism (indeed, many brewers' guilds are subsidized by state or regional tourism boards). For example, the Yakima Valley in Washington State is known for growing over 70% of hops grown in the United States, which became the largest hop producing country in the world in 2016, surpassing Germany for the first time (Hop Growers of America, 2016). Certain unique varieties of hops grown in Yakima are even trademarked, which gives this region and its brewers a natural terroir advantage. The Yakima Valley "Spirits and Hops Trail" links breweries to related agritourism, allowing the region to not only capitalize on the natural agribusiness relationships between hop growers and brewers but also on its unique agricultural characteristics.

Unlike wine, however, where high-reputation centers are tied to places where good grapes are grown, group recognition in beer frequently appears to gravitate toward urban centers, where craft beer is consumed and often made. Over the last 20 years, several U.S. cities have become known for their brewing culture. Although big cities have a greater absolute number of breweries, many smaller cities—such as Asheville, NC; Fort Collins, CO; and Missoula, MT—have been able to create unique brewing communities. Asheville, NC promotes a "Beercation Getaway" to capitalize on its approximately 15 breweries (see https://www.exploreasheville.com/stories/post/beercation-getaway/). In many cases, craft beer touring supports some other natural amenity, so craft brewers could try to tie their image to the local attraction.

Tourism affiliation can provide the means to adopt common quality standards: members could be required to pay a fee to receive additional promotional efforts from the regional tourism board. An advantage of this strategy is that marketing promotions provided by regional associations are likely more credible than information from individual firms (Rickard, McCluskey, and Patterson, 2015).

The distributor also provides important information to brewers that can help build their success and ultimately the reputation of the regions' craft brewers. In addition to providing insight into the consumer market, the distributor can help communicate various marketing requirements, such as packaging, product rotation, and timing of releases for seasonal brews. Not to be overlooked, the distributor also provides quality control management that can ensure that beer received by consumers meets standards.

In Summary

While there is no one clear strategy for creating or maintaining the collective reputation of breweries, efforts should extend across the entire supply chain. Beyond promoting specific attributes or affiliations, quality standards for inputs are necessary to ensure that the collective reputation is sustained over time. Marketing efforts play an important role as well. Craft beer distributors can help build the collective reputation of craft breweries, within either specific marketing regions or certain product groups, such as beer styles. Finally, community efforts—including retailers, tourism boards and guilds—can help promote the reputation of craft beer regions. Building a collective reputation for craft beer will require a collective effort.

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