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THE BEER INDUSTRY IN LATIN AMERICA

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Abstract

This document presents the current state of the brewing industry in Latin America with special attention given to micro brewing firms. We find that the market conditions in Latin America are favorable to significant growth in the brewing industry and particularly for craft and specialty beers. This study draws on a general overview of the industry in the region as well on five different countries.

Key Words: Latin America, craft beer, microbreweries, industry structure.

Introduction

Preferences for liquor are highly differentiated among Latin American countries. Wine is the most popular alcoholic drink in Chile, Uruguay and Argentina, while spirits such as pisco is preferred in Peru and rum is the signature liquor in Central America and the Caribbean. In the region beer has an important participation to; it is the most preferred alcoholic beverage in almost half of the Latin American countries.

Currently, beer market may be characterized worldwide by a substantial decline of per capita beer consumption in traditional markets, and a shift to new products (Swinnen, 2011) and, as it will be analyzed later, by the consolidation of an oligopoly with strong growth in emerging economies such as Latin America.

Latin America is not precisely recognized worldwide by strong brewing traditions, in fact, according to Webb and Beaumont, Latin American beer may be described by three basic

* This research was made possible thanks to the help of Mauricio Anillo as a research assistant. The analysis in the chapter is based on the Euromonitor International © database unless referenced.

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criteria: it is clear and flavorless, it is served cold, and it is produced by a big mass produced brewery, often, a multinational company. However, these authors also recognize the opportunity for market development in which the increase in the number of micro and craft breweries is a phenomenon that follows the same structural market pattern witnessed at the North American beer industry (Webb & Beaumont, 2013).

This chapter focuses on the brewing industry in Latin America, with special attention to the microbrewing segment. We first present a review of the state of the art in the field for the region, followed by the review of five country cases where the relevance of the craft and microbrewery segment has been identified. We will show then how the change in Latin American consumer preferences, growth of income level, and consolidation of the mass-produced beer industry, are all elements lining up in favor of the growth of micro and craft breweries in the region.

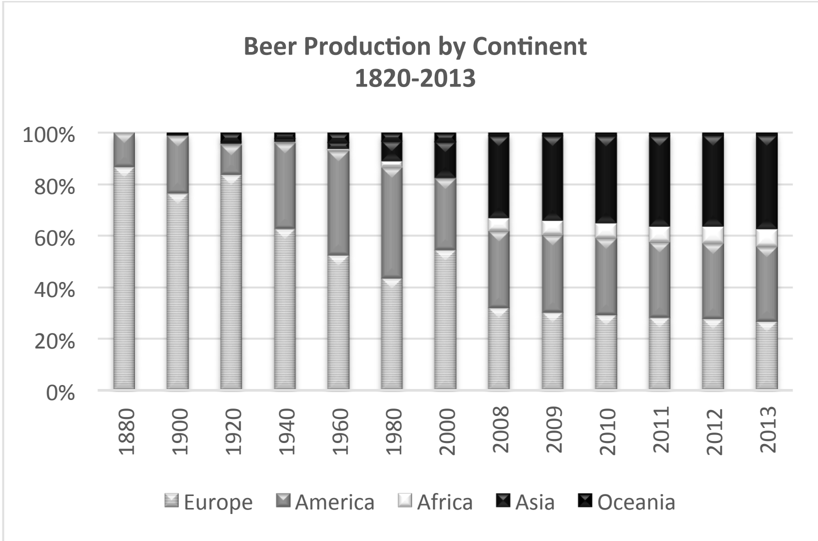
Brief History

Consumption of alcoholic beverages in Latin America, specifically in the Andean region including today countries of Colombia, Peru, Chile, Ecuador date pre-Columbian times. There is evidence that "…the earliest pottery… dating back to ca. 5000 B.P., was likely intended for *chichas*, [alcoholic beverage] primarily made from corn" (Penn Museum, 2015). Another traditional beverage *Pulque* was produced with fermented sap of the maguey plant (Pierce & Toxqui, 2014). *Pulque* and *Chicha* were the most popular alcoholic drinks in America by the time of the discovery in 1492, and *Chicha* was the Latin American beer, especially in South America.

However, the first "official" brewery in the new world after the arrival of Christopher Columbus was stablished between the years 1542 and 1554 in the region of Anameca, southeast of the current location of México city. The conquer Alfonso de Herrera was authorized by the King Carlos V to produce and sell beer (Verti, 2002) and (Reyna & Krammer, 2012). We assume this brewing tradition continue somehow until the XIX century, when according to Reyna and Krammer "…the demand for beer increase, displacing the more traditional *pulque*".

Production of beer continues in the new world up to these days. America, as a continent, has increased its participation in the world beer market steadily since we have recorded data. In the late nineteen century, 1880, America's market share was equivalent to the 13% of the world market. The most up to date statistics of production indicates that in 2013 the participation of the American continent (South, Central and North) is equivalent to almost a third (29%) of the global market, and the perspectives are in many ways promising for the growth of the product in the region (**Figure *1***).

Figure 1



Source: Calculations based on (Swinnen, 2011) and (Statista, 2015)

Mass Produced Beer

Mass production has led to the standardization of beer to the point where consumers "…cannot perceive the taste differences between the more generic mass-market pale lager brands" (Campbell & Goldstein, 2010). Specifically, in the last decade, beer industry has witnessed a dramatic change in terms of market concentration. At the dawn of the XXI century, ten firms combined sum up approximately half of global sales of beer, however, by the year 2012 the same share was divided among just four firms (Howard, 2013). This is evidence that brewing industry shows an interesting trend towards worldwide concentration due to economies of scale and horizontal integration, at least in the case of mass produced beer, and Latin America is not an exception.

In spite of the lack of information for the industry, we were able to identify some evidence related to the concentration process in Latin America. According to the Euromonitor International data, the Herfindahl-Hirschman Index (HHI) for the worldwide beer industry in 2013 was 896, which is considered as a competitive industry according to the Federal Trade Commission (FTC) parameters. However, the index has increased significantly between 2009 and 2013, from 815 to 896 (10%) points. Another way to verify industry concentration is by the use of the C4 concentration index from which we verify that four firms (AB-InBev, SABMiller, Heineken and Carlsberg) control 40.2% in 2009, and this market share has increased to 44.7% in 2013.

Even though worldwide industry concentration is still low, in Latin America trend towards concentration is stronger. According to Howard, "the markets of industrialized countries of Western Europe, North America and Japan remain important to the industry, but few firms remain as targets for acquisitions in these regions. The focus has instead shifted to emerging markets in Asia, Africa, Eastern Europe and Latin America”. Hence, since growth in mature markets seems to be slowing down, mass breweries are expanding towards a more dynamic emerging markets. The strategy “…entering these markets can be much easier and cheaper via acquisitions or joint ventures with domestic firms, rather than increasing imports or constructing new brewing facilities” (Howard, 2013).

Today Latin America can be categorized as a beer drinking continent. Out of the 23 Latin American countries recorded by the WHO, 48% of the countries (11) may be catalogued as beer drinkers because the market share of beer is higher than the market share of spirits or wine. 39% of the countries may be catalogued as spirit drinkers countries, and only in three countries, that represent 13%, wine consumption surpassed spirits and beer (WHO, 2014).

Between 2008 and 2013 in terms of the size of the regional market, Latin America represents on average 15.9% of the world market on beer. **Figure 2** presents the Herfindahl-Hirschman Index (HHI) for the region, with an estimated value of 2045, considered as a “moderately concentrated” market according to the FTC merger guidelines. Specifically, for all the five countries represented in the figure, the industry is “highly concentrated”, because the parameter values for the HHI are above 2500 points.

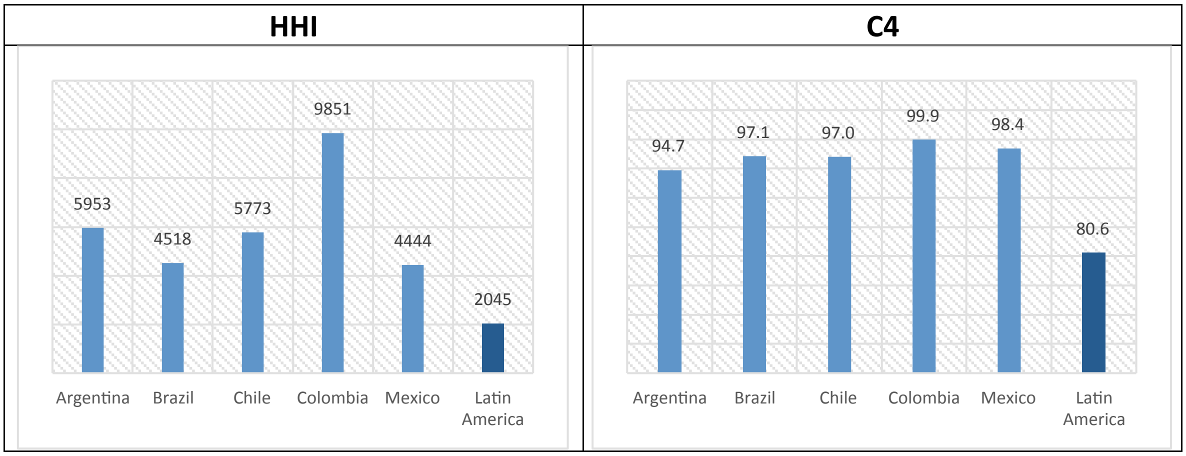
Currently, 89.6% of the Latin American beer market by volume is produced by seven countries: Brazil, México, Colombia, Argentina, Chile, Venezuela and Peru. In the last decade, with the arrival of multinational companies to the region, the war for Latin American market has intensified. Most of the countries have now duopolistic markets mainly dominated by big world players. For the year 2013, the top three firms in terms of market shares were Anheuser-Busch InBev (AB-InBev) with 47.6% of the market, Heineken with 14% and SABMiller with 13.6% of the market (Euromonitor, 2015).

However, despite the seemingly clear trend to higher levels of beer industry concentration in the region, for Howard, there are still some barriers to the consolidation of a worldwide oligopoly or even a duopoly to be consider. Specifically, “…cultural barriers to global brands in emerging markets, and the rising consumer interest in varieties produced by smaller specialty brewers in mature markets” (Howard, 2013).

Small and Microbreweries

In spite of the clear trend to concentration of the mass-produced beer, Latin American markets started to witness the birth of a craft beer industry in the hands of small and microbrewers. The lack of information about these types of establishments is an important impediment to analyze this segment properly, however, some evidence points out to the clear future of the market.

Figure 2
Average Industry Concentration 2008-2013



Source: (Euromonitor, 2015)

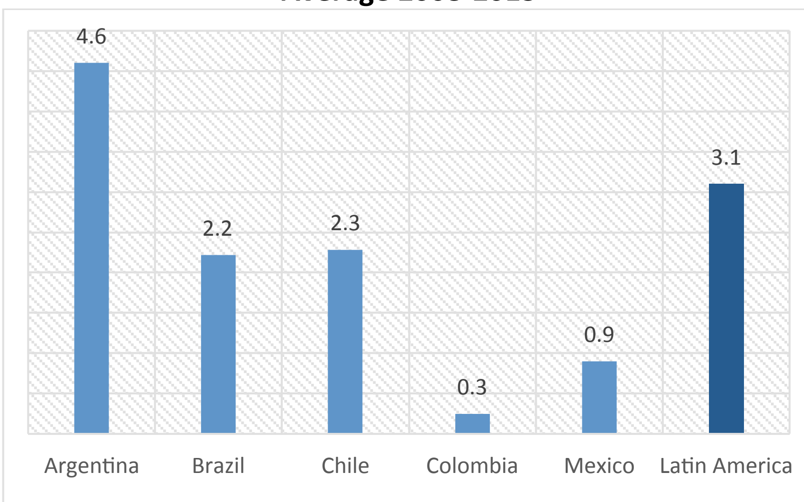
Based on Euromonitor information related to small breweries, we may have an idea of the industry performance in the segment of craft beers. According to the data, the average market share of small and microbreweries is for Latin America between 2008 and 2013 was 3.1%. By country, the case with higher participation of the small or microbreweries in the market is Argentina with a participation of 4.6%. The lowest case of participation of small and microbreweries in the market was observed in the case of Colombia, where the participation is less than one percent on average (0.3%) (***Figure 3***).

The apparition of new brands of beer mainly produced from small and microbreweries, may be explained by the increase in income. At a global level, we verified the existence of a causal relation of per capita income by country and the variety of beer products available. For a panel data with 76 countries in six years (2008-2013) we found that 10% increase in per capita GDP generates an increase in almost 3% in the number of brands available in the market, where this single variable (per capita GDP) explains 34% of the changes in variety from one country to other.

As in the North American and European markets, the interest in the production and consumption of craft beer in Latin America has growth in recent years. An interesting indicator of the increasing popularity of this market is the number of searches reported by

Google Trends for the term "craft beer" both in Spanish and Portuguese. The average growth in Google searches is 2.4% weekly from January of 2010 to February of 2015. For the last four years, the interest in the term has grown 212%. According to this source, Latin American countries more interested in craft beer market are in order: Chile, Argentina, Brazil, Mexico, Ecuador, Peru and Colombia.

Figure 3
Small Breweries Market Shares (%)
Average 2008-2013



Source: (Euromonitor, 2015)

In terms of the effect of incomes in beer consumption, according to Tremblay & Tremblay (2005), "…the majority of studies conclude that beer is a normal good but that income has relatively small effect on demand". There are no available studies or reports estimating income elasticities for beer in Latin America. For Toro-Gonzalez, McCluskey, & Mittelhammer (2014), in the U.S. market income elasticity parameter is 0.58 and according to Fogarty, beer income elasticity in his meta-analysis takes values among the range -.98 to 6.38 (Fogarty, 2008).

With respect to the income elasticity for different types of beer, Tremblay & Tremblay (2005), state that "premium beer is likely to be more income-elastic than popular-priced beer". This hypothesis contrast with the results of Toro-Gonzalez et. al. (2014) who found little differences among the coefficients obtained for craft and mass produced beer, 0.59 and 0.57 respectively.

A simple exercise of demand estimation[1] for the Latin American market using aggregate data in consumption from Euromonitor International for a sample of twelve countries during six years (2008-2013) reveals that the income elasticity is 1.17 statistically significant at 99% of confidence. The value of the coefficient means that an increase in 1% in the per capita income in the region increases the consumption of beer in 1.17%. Table 1 also shows the own and cross price elasticities.

Assuming the income elasticity parameter for beer in the Latin American case (1.17) has been the same for the last two decades, the increase in per capita GDP in Latin America of 36% in the last 20 years explains almost 42%[2] of the market growth during the period. This result reveals the importance of the income growth in the Latin American market performance. Assuming the growth rate of the emergent economies in the region keep favoring the economic convergence in the per capita income, hence the market is expected to continue its development in the different market segments, mass, premium and craft beer.

Table 1

Elasticity Matrix for Latin American Beer Markets (2008-2013)

	Beer	Spirits	Wine	Income
Beer	-0.8232 **	0.5263 ***	0.0705	1.1797 ***
Spirits	0.4501	-0.5832 ***	0.4052 ***	1.2593 ***
Wine	-0.1079	0.1386	-1.3237 ***	2.0176 ***

Countries considered in the exercise are Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Guatemala, Mexico, Peru, Uruguay and Venezuela. Significance level: *** P-value<0.1.

Source: Calculations by the author using Euromonitor International data.

An additional estimation exercise consisted in a log-log model explaining the variation in the market shares of small breweries. The results of the model reveal the lower participation of small breweries in the Latin America and the Caribbean (LAC) countries with respect to the rest of the world. It also illustrates the positive income elasticity of the small breweries market segment, which is low (0.16) when compared to the parameter of the craft beer market in the U.S. of 0.59 obtained by Toro et.al. (See **Table 2**).

[1] The model estimated is a log-log simultaneous equation model for the three markets of alcoholic beverages: Beer, Wine and Spirits.

[2] Let e_m be the income elasticity, with m as the income level, and q the production, $e_m = \frac{\Delta\%q}{\Delta\%m} \rightarrow \Delta\%q = (e_m \cdot \Delta\%m) = (1.17 * 0.36) = 0.42$.

The results allowed us to identify the closer substitution effect of craft beer and spirits, with a cross price elasticity of 0.4, and the null statistical evidence of the substitution between small breweries beer and wine market. A final remark on the results, but maybe the most important, is the negative effect of the market concentration (HHI) on the market share participation for small breweries. The higher the concentration index, the lesser the market share participation of small breweries. This result is very intuitive since more barriers to enter the market are expected when a monopolistic position has been consolidated by the incumbents in each market.

Table 2
Log-Log regression on Small Breweries Market Share 2008-2013

Variables	OLS	
Price	-0.796	***
Income	0.165	***
Pop (Rural)	-0.129	***
Unemployment	-0.427	***
Price (Spirits)	0.440	***
Price (Wine)	-0.073	
LAC	-1.506	***
HHI	-2E-04	***
Constant	3.143	***
R2	0.559	
N	314	

Legend: * p<0.2; ** p<0.15; *** p<0.1
Source: Calculations by the author using Euromonitor International data.

Country Cases

Latin America represents 16% of the beer world market, and is the battleground for big breweries and nursery for craft brewers' movement. The beer market in the region is very dynamic, it is growing twice as fast as the world market, 3.0% and 1.6% respectively between 2009 and 2012.

In order to approach the market structure in each country and to analyze closely the development of the craft brewing industry in Latin America, we present a description of five country cases that represent 78% of the Latin American beer market: Brazil, Argentina, Mexico, Colombia and Chile.

Brazil

Brazil is the biggest market in Latin America with more than 200 million habitants, and the third market worldwide in terms of beer volume, just after China and USA. Beer in Brazil represents the highest share of the liquor market with 60%, followed by spirits with 36%, and wine with just 4% (WHO, 2014).

Brazil is also the highest diversified market in the region with more than 50 brands of beer, and four (4) big breweries competing: AB-InBev, Kirin Holdings Co., Cervejaria Petrópolis and Heineken. However, market shares are far from being equally distributed. AB-InBev is the leader in the market with 64% of the share on average between 2008 and 2013. The second biggest player in the Brazilian beer market is Kirin Holdings Co. with a 15.8%[3], closely followed by Cervejaria Petropolis S.A. with 8.9% and Heineken by 5.6%.

The beer brand with higher market share in Brazil is Skol from AB-InBev, with a market share of 30.5% on average between 2008 and 2013. However, the dominant position of this and other brands is being challenge by the diversity of craft beers in the market, since 2008 to 2013 the market share of Skol is in decline by 0.45 percent points by year. The second brand in the market is Brahma with a share of 17.3%.

Per capita consumption in Brazil is still relatively low, with 51 liters in 2009, however, is the third largest beer producer in the world, which paired with the increase in income, makes this market very attractive for investors and provide important perspectives of growth. Opportunities are especially clear for the craft segment, in 2010 there were more than 100 craft breweries using local exotic ingredients to create new flavors (Webb & Beaumont, 2013).

In terms of micro and small breweries, the combined market shares of this market segment have increased by almost one percent along the period, from 2.0% in 2008, to 2.8% in 2013.

"Brazil's craft beer market, which consists of more than 300 small breweries whose main products sell for as much as three times the price of industrial beer brands." (Antunes, 2015)

[3] In November 2011 Schincariol Group became a wholly-owned subsidiary of Kirin.

Argentina

Argentina is the fourth market in size in Latin America with more than 40 million habitants. For the Argentineans, wine is the most important alcoholic beverage with 48% of market share, and beer is the second preferred beverage with 40% (WHO, 2014).

Mass produced beer industry in Argentina is a type of leader-follower duopoly dominated by AB-InBev with an average participation of 75% between 2008 and 2013. AB-InBev is strongly consolidating its market position by increasing the market share in the market by almost four percentage points during this period, from 72.4% in 2008 to 76.3% in 2013.

The beer brand with higher market share in the Argentinean market is Quilmes, produced by AB-InBev, with an average market share of 44.2%. As in the case of Brazil, the dominant position of this leading brand is being challenge by the diversity of brands in the market. Since 2008 up to 2013 the market share of Quilmes is in decline by 0.5 percent points by year. As in Brazil, the second brand in the market is Brahma with a share of 14.8%.

Argentina is the Latin American country with the highest participation of micro and small breweries in the market, the combined market shares of this segment represents 4.6% on average between 2008 and 2013, and according to Webb et.al. since 2002 there has been between 75 and 150 craft breweries (Webb & Beaumont, 2013)

Antares is the leading craft microbrewery in the country. It uses their own brewpubs as distribution channel consisting in almost 20 brewpubs around the country (Antares, 2015).

Mexico

As in the case of Brazil, Mexico is also a beer country. Alcohol consumption share of beer for the Mexican market is 75% followed by spirits, 22%, and wine just with just 1.5% (WHO, 2014).

The main difference between the Mexican case with those of Argentina and Brazil is the fact that the beer market is less concentrated. While in the cases of Argentina and Brazil the leading firm AB-InBev controls 76% and 62% of the market share, in 2013 the Mexican market was divided among two firms, a duopoly conformed by AB-InBev with 51.3% of the market share, and Heineken with 43.6%.

In terms of brands, the beer brand with higher market share in the Mexican market is Corona Extra, from AB-InBev, with an average market share of 21%. As in the case of Brazil and Argentina, the dominant position of this leading brand is being challenge by the diversity of brands in the market, since 2008 to 2013 the market share of Corona Extra is in decline by 0.8 percent points during the period. The second most important brand is Tecate, brand of Heineken, with an average participation in the market of 17.4%.

In terms of the participation of micro and small breweries in the market, this has fluctuated around 0.85% without a clear trend during the period.

In the case of Mexico, tax rates on beer and other alcoholic beverages depend on the alcohol by volume, since almost all beer contains levels inferior to 14 degrees the applicable rate is 26.5% (OECD, 2014).

Colombia

As in the Brazilian and Mexican cases, preferences for alcoholic beverages in the Colombian market reveal the preferences for Beer over Spirits and Wine respectively. Alcohol consumption share of Beer for the Colombian market is 66% followed by Spirits, 32%, and Wine with just 1% (WHO, 2014).

The case of Colombia mimics the U.S. behavior in terms of number of firms. According to Plano-Danais, there are evidences of more than a hundred breweries around the country and all of them disappear during the first years of the XX century. By 1975 with the purchase of the last independent brewery, Andina S.A., by Bavaria, a monopoly was consolidated in the country (Plano-Danais, 2015).

Today, Colombia is an interesting case of monopoly in Latin America. Bavaria SA was almost the solely brewery in the market until 2005 when SABMiller takeover the Colombian brewery. An exception to the monopoly status of Bavaria was among the years 1994-2004. With the support of an important national economic conglomerate in 1994 Cerveceria Leona was created, and challenge the market position of Bavaria SA. However, the duopoly period finished abruptly in 2004 by the purchase of the Cerveceria Leona by Bavaria SA. For 2013, SABMiller, formerly Bavaria, control 98.6% of the national market (Euromonitor, 2015).

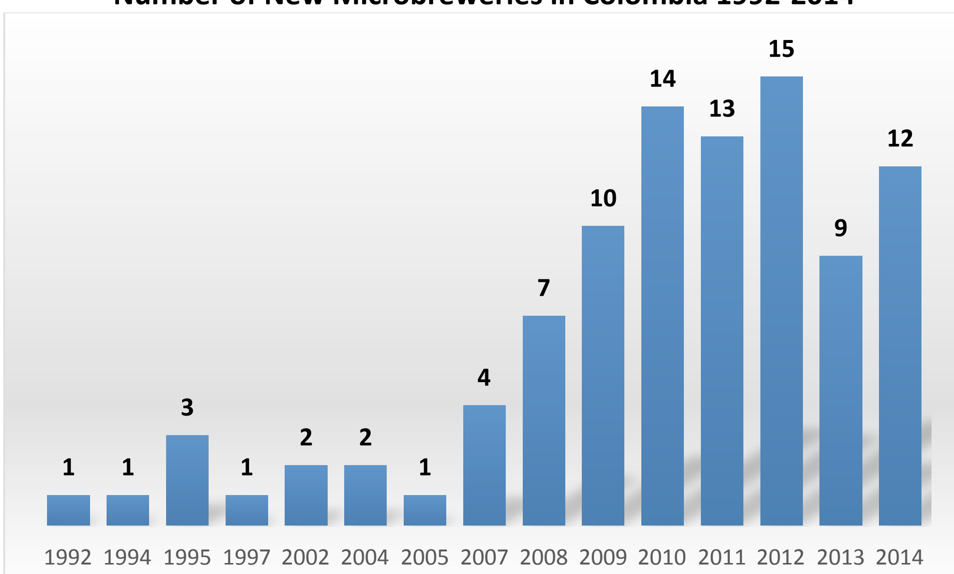
The leader beer brand in the Colombian market is Aguila, from SABMiller, with an average market share of 40.8%. Different to the cases of Brazil, Argentina and Mexico, the dominant position of this leading brand remains unchanged for the period 2008-2013. The second most important brand is Poker, with an average participation in the market of 34% and the third most popular beer brand is Pilsen with 11.8% average market share, and all of these three brands are produced by SABMiller. In fact, the top six brands in the Colombian market are produced by SABMiller (Euromonitor, 2015).

In spite of the consolidated monopoly in the country by the firm Bavaria, currently SABMiller, the movement of craft beer microbreweries seems to be consolidating slowly. The most important craft brewery in Colombia is Bogotá Beer Company (BBC), with a production capacity of over 80.000 hectoliters a year. The second largest microbrewery is Artesana Beer Company (Cerveza 3 Cordilleras) with a installed capacity of 8250 hectoliters a year. Finally, the third largest microbrewery in the country is Industrial de Cervezas y Bebidas S.A. Induserv., producers of Apostol with a installed capacity of a 7200 hectoliters a year.

According to Ricardo Plano-Danais, since 2007 the number of new micro and small breweries in the market has been growing, see **Figure *4***. However, from 1992 up to 2009 there was a very low survival rate among small breweries. During the period 1992-2009, 32 new breweries enter to business, however, just 14 (43%) survive until 2014. That is equivalent to a 56% of a mortality rate in the industry of micro and small breweries with an average duration on the market of five years. Since 2010 there are 63 new microbreweries in the market that represents approximately 81.190 hectoliters a year (Plano-Danais, 2015).

Figure 4

Number of New Microbreweries in Colombia 1992-2014



Source: (Plano-Danais, 2015)

According to the National Tax Office (DIAN), in the case of Colombia the VAT for beer is not different to the rest of the consumption goods of 16%, and there is not a special tax incentive to the craft or micro brewing industry.

Chile

As in the case of Argentina, Chile is a wine drinker country. In Chile, the participation of wine in the market of alcoholic beverages represents 40.7%. Beer is the second preferred beverage with a market share of 29.9%, almost the same market share of Spirits (29.4%) (WHO, 2014).

Chilean market structure is closely related to the cases of Argentina and Brazil. There is a clear leader in the market, *Compania Cervecerias Unidas S.A.* (CCU), who captured 74% of the market on average between 2008 and 2013. The follower in this case is AB-InBev with 15.5% of the share. As in the case of Argentina, AB-InBev has consolidated its market position by increasing its market share from 13.1% in 2008 to 22.2% in 2013. The third company by market share is Heineken with an average market share of 4.9% between the period and an increase of 1.2 percent points between 2008 and 2013 passing from 4.3% to 5.5% respectively. The consolidation of both firms, AB-InBev and Heineken, seems to be at expenses of the reduction in market share of CCU, with a cost for the company represented in a 8.4 percent points of market share during the six years period, which is equivalent to a yearly reduction of almost 1.5 percent points.

The beer brand with higher market share in the Chilean market is Cristal, from CCU, with an average market share of 38.9%. As in the case of Brazil, Argentina and México, the dominant position of the leading brand is being challenge by the diversity of brands in the market. From 2008 to 2013, market share of Cristal is in decline by an impressive 2.5 percent points by year, for a total loss in the market share of more than 15% in just six years. The second most important brand is Escudo, also produced by CCU, with an average participation in the market of 24.5%. On average between 2008 and 2013 the participation of micro and small breweries in the Chilean market represents 2.3% of the beer market.

In Chile, the VAT rate applied to beer is of 15% and does not depend upon the degree of alcohol that the beer contains (OECD, 2014).

Conclusions

We have shown that Latin America is an interesting and growing market for the global beer industry. It is a market with a considerable presence of multinational breweries and high and increasing concentration levels among mass-produced beer brands. While the market share of the top 4 breweries in Latin America averages at about 80%, these numbers are above 95% and above in Colombia, Mexico, Chile, Brazil and Argentina.

At the same time, there is an interesting evolution on the craft segment, where consumer preferences are constantly evolving toward new products.

We find the income elasticity to be moderately elastic (1.17), which is an important element in explaining around 42% of the total market growth in the last 20 years. Based on this result it is possible to infer growth of the market in the near future according to the income growth trend for the region.

Another interesting feature of the beer industry is the lower participation of small breweries in Latin American and Caribbean (LAC) countries compared to the rest of the world. We find that most micro and small breweries use their own pubs and bars as starting points to consolidate their distribution channels. Without evidence to point put the generation of entry barriers by the traditional mass breweries is difficult to assess whether this fact relates with the lower participation of micro and small breweries in the market. However, we did find that the higher the concentration index in a specific market, the lesser the market share participation of small breweries. This result may support the hypothesis of increased barriers to enter the market for small and microbreweries when a monopolistic position has been consolidated on the hands of mass producers.

Although it is clear the increased presence of multinational firms in the region, changes in preferences also are verified with the reduction in the market shares of dominant brands. This, together with the increase in income, may be evidence of a market in the process of transformation, which implies opportunities for the development and introduction of new brands in the market. In general, along the chapter it was showed how the change in Latin American consumer preferences, growth of income level, and consolidation of the mass-produced beer industry, are all elements lining up in favor of the growth of micro and craft breweries in the region.

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