

Cooperation and Competitiveness in Brazilian Crafted beer Production: The case of gypsy breweries in Goiás State

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Abstract— This paper aimed to present and discuss the craft beer production in Goiás state, Brazil, where brewers do not own the necessary equipment (gypsy breweries). Therefore, a literature review combined with qualitative interviews with gypsy brewers were carried out. The industrial and crafted forms of production have not been annulled, and forms of production have arisen that involved processes of sharing the infrastructures of large companies and crafted producers, as in the case of gypsy breweries, cuckoo or ghosts. The practices of gypsy breweries, therefore, left Europe and gained the world, and came to materialize in Goiás, Brazil. A country that stands out in the production and consumption of beer. Among the main positive aspects of the practice of gypsy brewing in Goiás, it was possible to perceive the stimulation of diversified consumption, the possibility of using equipment in a more efficient way, taking advantage of moments of vacancy, sharing knowledge, and stimulating improvement in the quality of production, and, among the main bottlenecks are the distribution structures of production, and, the existing taxes in Brazil.

Keywords— *crafted beer, gypsy breweries, cooperation, competition.*

I. INTRODUCTION

Patrick McGovern in his book “Uncorking the Past” points out that interest in accessing alcohol may have led men, hitherto, hunters and gatherers to plant cultivation and thus cease to be nomadic. In his research, the archaeologist was in different points of the world evaluating through biomolecular research traces of boilers, to verify the consumption and search for the extraction of alcohol under various forms in different cultures around the world.

The consumption of alcohol, therefore, has always been linked to human customs, and the advances of production and access to alcohol have been diverse throughout the history of humanity. These advances are linked both to the act of producing, to the distribution and forms of organization and management of production.

The study and mastery of fermentation and refrigeration techniques facilitated the production of alcoholic beverages on a large scale.

This article deals with the production of alcohol, specifically beer, and brings elements that support us to reflect on how the relations of production sometimes

point to a complex reality that advances and makes ponder over the conceptual issues. In this article, we focus on how beer production came about, gained scale, and reached the different points of the country and at the same time diversified. This means that the relationship between production and consumption is complex, it is not just about consuming a product, but also about diversifying consumption. And, this diversification requires diverse strategies.

It transpires that beer production and the competitiveness of a global market could both undermine crafted beer productions, their potency and supply capacity, but simultaneously generated a demand for an increasingly diverse production.

Thus, the large breweries began to serve several countries in the world, and as a parallel phenomenon, small and medium-sized breweries also exposed large companies and society itself, its importance and wealth. And for this to be possible it was necessary to develop operating strategies, since small and medium-sized productions do not always access structures for production.

The mode of production called Gypsy Breweries, Ghosts, or Cuckoo are therefore an object of analysis, especially the gypsy production, because it is a strategy of production on a smaller scale and, using equipment and infrastructure of larger breweries.

Thus, gypsy production allows a brewer, who has neither a factory nor the means of production, to access the means of production of another producer to create his product.

In this case study, the gypsy production in Goiás state, in central Brazil, will be analyzed. It is noteworthy that Brazil is a country of competitive international production and, theoretically, an environment with great supply and brewing culture.

Therefore, it should be noted that the existing consumer environment has also become demanding and has enabled the production of smaller breweries and of gypsy beers.

Gypsy breweries were thus called from the beer production proposals alternatively by the Danes Mikkel Borg Bjergsø and Kristian Klarup Keller. These are beers produced using the structure of industrial breweries, which allow, by means of a contract, stipulating payment methods for the use of equipment, which make it possible to produce beer from being handmade or homemade to becoming commercial or industrial.

In this sense, it is necessary to reflect on the different forms of production processes that occur within the traditional production system. One can see in what way consumption has transformed allowing the co-existence of products of large companies, and the diversified ones.

II. DYNAMICS OF BEER PRODUCTION AND CONSUMPTION WORLDWIDE

The consumer society is a reality in many developed and developing countries of the world. In developing countries, or unequal countries such as Brazil, this consumer society has advanced in recent years.

As the unequal countries advance in stimulating their consumer markets, the lower classes advance in the consumption of different products, hitherto not accessible or unknown in different parts of the world.

Regarding the beverage market, the advance in consumption is no different. The market for alcoholic beverages in Brazil and in the world has grown since its birth.

The beer market is diverse, with small, medium and large productions that have spread throughout the world.

A craft beer is produced by a craft brewer. According to the Brewers Association (2018), in America, a craft brewer can be classified as:

- Small: Annual production of 6 million barrels of beer or less (approximately 3 percent of U.S. annual sales). Beer production is attributed to a brewer according to the rules of alternating proprietorships.
- Independent: Less than 25% of the craft brewery is owned or controlled (or equivalent economic interest) by a beverage alcohol industry member which is not itself a craft brewer.
- Traditional: A brewer which has most of its total beverage alcohol volume in beers whose flavors derive from traditional or innovative brewing ingredients and their fermentation. Flavored Malt Beverages (FMBs) are not considered beers.

Before the advance of capitalism to Southern countries, production was concentrated in the Northern hemisphere. Thus, until the end of the decade of 1930, the countries that produced more beer were: United States, Germany and, Great Britain.

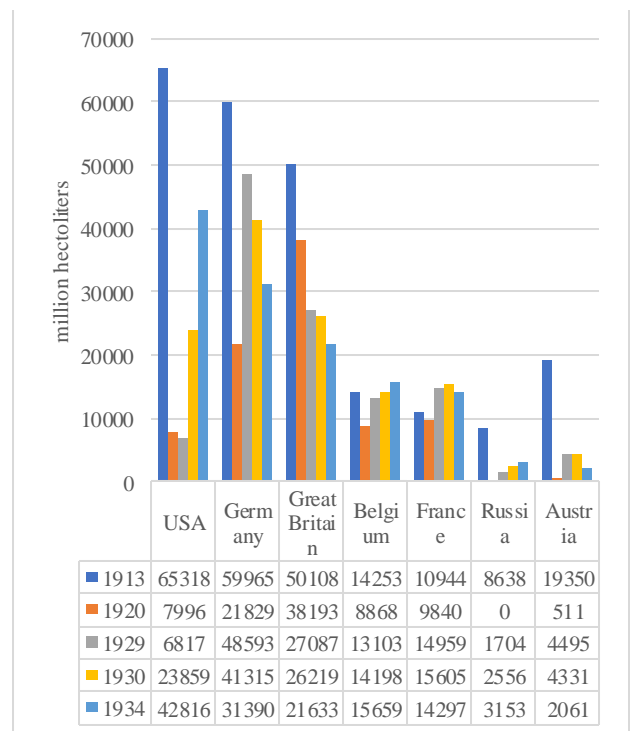


Fig.1: Main beer producing countries, 1913-1934 (selected years, in million hectoliters).

Source: Limberger (2016, p. 27)

By the 1960s, the scenario had not yet been modified. Therefore, the largest producers in the world were represented by the countries: United States, the Federal Republic of Germany (West Germany) and Great Britain.

There was loss of importance in the case of Belgium and growth in the case of Russia and Czechoslovakia.

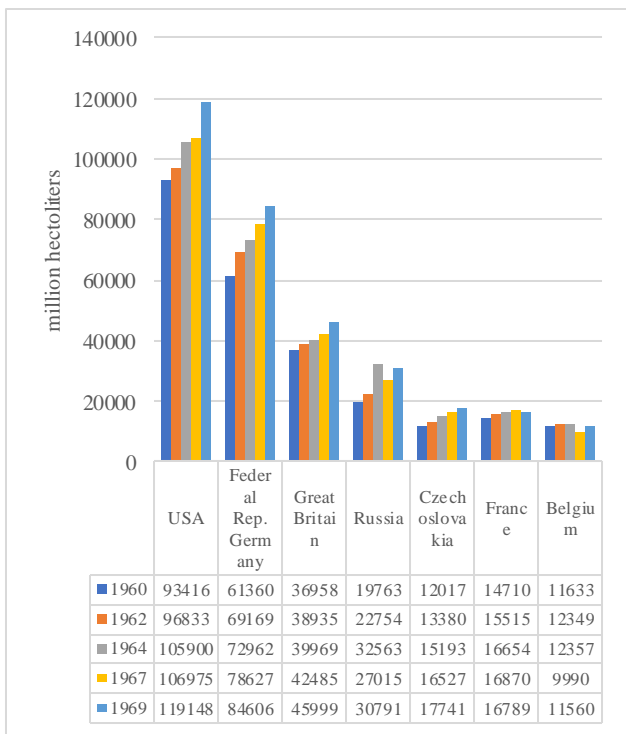


Fig.2: Main beer producing countries in the 1960s (selected years, in million hectoliters)

Source: Limberger (2016, p. 31)

After this configuration, along the expansion of brewing production in the world, countries traditionally producing beer were losing space, and, according to Limberger (2016), traditional brewing countries were losing ground to production growing in the periphery countries of the capitalist system, and the enterprises of these countries were expanding into these new emerging markets. The degree of concentration has increased, products have been globalized and competition has been faced more intensively in the world market (Limberger, 2016, p. 10).

These transformations have generated changes in global production scenarios.

Big countries in beverage production point to the sector's competitiveness worldwide. The largest breweries in the world are in countries in Europe and America, with data that draw attention to countries such as Germany, the Netherlands, the United States and, in recent years, Brazil.

Brazil stood out in the decade of 2010 by the growth of the industry and the acquisition of foreign industries, showing international competition. Producers such as Ambev and Inbev are examples of this expansion.

Table 1: Global Beer Production by Country in 2016

		2016				2015		
2016 Rank	2015 Rank	Country	Production Volume (kl)	Growth from Previous Year	Global Market Share Incremental (%)	Global Market Share Cumulative (%)	Production Volume (kl)	Growth from Previous Year
1	1	China	41,416,700	-3.7%	21.7%	21.7%	43,008,000	-4.3%
2	2	United States	22,135,300	-0.7%	11.6%	33.3%	22,286,900	-1.4%
3	3	Brazil	13,334,600	-3.8%	7.0%	40.3%	13,857,500	-2.0%
4	4	Mexico	10,500,000	8.1%	5.5%	45.8%	9,710,000	-4.5%
5	5	Germany	9,495,700	-0.7%	5.0%	50.7%	9,562,300	0.4%
6	6	Russia	7,810,000	-0.4%	4.1%	54.8%	7,841,400	2.3%
7	7	Japan*	5,352,000	-2.1%	2.8%	57.6%	5,464,300	-0.1%
8	8	United Kingdom	4,373,400	-0.9%	2.3%	59.9%	4,413,100	-0.5%
9	10	Vietnam	4,080,000	11.2%	2.1%	62.1%	3,670,000	20.1%
10	9	Poland	4,073,100	-0.4%	2.1%	64.2%	4,090,000	3.5%
11	11	Spain	3,620,000	4.1%	1.9%	66.1%	3,477,500	3.7%
12	12	South Africa	3,200,000	-0.4%	1.7%	67.8%	3,213,000	2.0%
13	13	Nigeria	2,600,000	-3.7%	1.4%	69.1%	2,700,000	0.0%
14	14	France	2,468,000	2.7%	1.3%	70.4%	2,402,000	17.3%
15	15	Netherlands	2,455,900	2.3%	1.3%	71.7%	2,401,200	1.3%
16	16	Thailand	2,403,600	2.0%	1.3%	73.0%	2,356,200	6.4%
17	17	India	2,210,000	4.2%	1.2%	74.1%	2,120,000	6.0%
18	19	Belgium	2,061,600	4.1%	1.1%	75.2%	1,981,100	8.8%
19	18	South Korea	2,000,000	-2.7%	1.0%	76.3%	2,056,300	-0.9%
20	22	Czech Republic	1,929,900	1.4%	1.0%	77.3%	1,903,300	2.4%
21	24	Colombia	1,910,000	5.5%	1.0%	78.3%	1,810,000	5.2%
22	23	Canada	1,900,000	0.1%	1.0%	79.3%	1,897,300	0.2%
23	25	Argentina	1,800,000	7.1%	0.9%	80.2%	1,680,000	1.8%
24	21	Ukraine	1,798,000	-7.6%	0.9%	81.1%	1,946,000	-19.6%
25	28	Philippines	1,650,000	5.8%	0.9%	82.0%	1,560,000	4.0%
		Global Total	190,918,700	-0.6%	100.0%	100.0%	191,991,300	-0.6%

Source: Kirin Beer University (2017)

The data that present the production by country therefore expose a geography of production by volume different from the geography of production by diversity. Thus, after the 1990s, there was a great transformation in the brewing production scenario. And in the decade of 2010, the countries that stood out in production, in volume, worldwide, were China, the United States and Brazil.

When the data are analyzed by region, Asia presents itself as the first producing region of the world, and the second region is represented by Europe, which with all countries, constitute a larger production than North America, and South America not summed.

Table 2: Global Beer Production by Region in 2016

Region	Production Volume in 2016 (kl)	633ml Bottle Equivalent (million bottles)	Growth from Previous Year	Global Market Share	Production Volume in 2015
Japan*	5,352,000	8,455	-2.1%	2.8%	5,464,300
Asia (excluding Japan)	57,802,100	91,315	-1.5%	30.3%	58,677,200
Asia Total	63,154,100	99,770	-1.5%	33.1%	64,141,500
Europe	52,097,100	82,302	0.5%	27.3%	51,830,800
North America (United States and Canada)	24,035,300	37,970	-0.6%	12.6%	24,184,200
Central and South America	34,039,300	53,775	-1.1%	17.8%	34,426,200
Africa	14,504,100	22,913	1.5%	7.6%	14,284,900
Middle East	1,059,200	1,673	-2.6%	0.6%	1,087,000
Oceania	2,029,600	3,206	-0.3%	1.1%	2,036,700
Global Total	190,918,700	301,609	-0.6%	100.0%	191,991,300

Source: Kirin Beer University (2017)

Historically, there have been major changes in beer consumption worldwide. In recent times, the per capita

consumption has decreased in traditional “beer drinking nations” while it increased strongly in emerging economies. Climatic conditions, religion, and relative prices also influence beer consumption (Colen & Swinnen, 2016).

A quantitative empirical analysis by Colen and Swinnen (2016) demonstrates that the relationship between income and beer consumption has an inverse U-shape. With rising incomes, beer consumption initially increases, but at higher levels of income it falls.

According to Stack et al. (2016, p.54), “Although beer is an ancient beverage, brewing as an industry was not historically one of the driving forces of globalization. Certainly, there are instances during the past century of specific brands being made available in other countries, but for the most part, beer brands have not crossed national borders. In many countries, beer, more than many products, has become intertwined with notions of national identity and pride. As a result, the efforts to internationalize in this market must overcome deep cultural associations regarding the product, the producer and the consumer.”

III. THE PREFERENCE FOR CRAFT BEER

The consumer worldwide is showing a growing preference for craft beer. Figures from Euromonitor International (2014) revealed annual market share gains at rates of 3%. In order to understand this shift in preference, it is fundamental to know about the brewing revolution that has been taking place on a global scale in recent years. It is an international movement with emphasis on regional and technological productive transformations. Although beer has been produced since 8000 BC, its global popularization happened after the Second World War (Oliveira & Barcelos, 2017).

From the 1950s up until the 1980s, the production and distribution of beer in countries such as the United States and the United Kingdom were planned to satisfy a uniform and growing demand; there was little room for diversification in the product. In this period, the brewing industry became highly concentrated with few high capacity global players offering a standardized and blended product worldwide (Cabras & Bamforth, 2016). This international scenario in the 1980s was the leitmotif (one of them) for the rise of micro-breweries with new possibilities of diversification translated for the consumers in terms of choice and taste.

The characteristics of the big players (generalist firms) in the beer market left peripheral space for the upsurge of small players, specialist firms (micro-breweries, brewpubs, contract brewers) that chose narrow

homogenous targets at a regional scale (Cabras & Bamforth, 2016). The increase in the number of small specialist firms came in response to the increasing dissatisfaction of consumers with bland products offered by major brewers. “These trends indicate that consumers’ tastes were becoming increasingly sophisticated and micro-brewers were better able to cater for this market” (Cabras & Higgins, 2016, p. 615).

The interest for stronger flavors was one important reason for the rise of craft beer but not the only one. Consumers were also looking over quality, accepting drinking less but drinking better (Euromonitor International, 2017). The driver for craft beer is as much linked to notions of localization, authenticity and heritage. In fact, this interest was sparked five decades ago with a pioneer initiative in the United Kingdom called Campaign for Real Ale (CAMRA), a movement of beer lovers that valued the traditional way of producing and storing beer. This was the first wave by Cabras and Bamforth (2016). The second wave happened in the early 1990s and was characterized by the entrance of new founders barely connected to breweries or brewing, such as retirees or beer-lovers looking for a career change. The third wave came in the early 2000s and was testified by a growing number of micro-breweries due to the development in brewing technologies reducing the price of equipment that became more compact and easier to install.

The brewing revolution also had its branches in Latin America, an important emerging market. According to Oliveira and Barcelos (2017) the Brazilian brewing sector experienced a market transformation as the craft beer was introduced. Superior quality drinks and new flavors were highly appreciated in contrast to light beer which is subject to massive production.

The devotion manifested by beer lovers is such that they are willing to travel to experience a good product with full-bodied characteristics. More enthusiastic beer lovers are favorably disposed to know the beers as much as to understand their production process. In this vein, brewers in Brazil adopt integrative marketing strategies, like guided visits to factories, tours in specialized beer fairs, partnerships with bars and gastronomic places (Oliveira & Barcelos, 2017).

In short, the craft beer industry came as an answer to the complaint of consumers unsatisfied with the homogenized, standardized and blended flavor products made by dominant international players. In response to the growing sophistication of the consumer in the last decades, new organizational forms of business (small specialized firms) started supplying this consumer with

differentiated and stronger flavor products, made preferably with traditional processes guaranteeing the high quality demanded.

IV. DYNAMICS OF BRAZILIAN BEER PRODUCTION AND ITS COMPETITIVENESS

Brewery production in Brazil originated, according to Limberger (2016), mainly due to the European immigration that came to Brazil in the mid-nineteenth century. Small industries were formed in the South and Southeast and were being extinguished with the industrialization and growth of big companies.

The history of this productive sector reflects, therefore, the history of the population's advances in the territory, of urbanization and Brazilian industrialization. Therefore, as the population entered the territory, the phenomenon of urbanization and industrialization spread, and the beer industry also spread.

Figure 3 points out some of the main moments of the Brazilian industrial production and its dissemination in the territory. The industrial production, as can be seen, starts in the south and southeast of Brazil, and advances to the other regions.

Thus, at the end of 1800 there were already three Brazilian breweries, founded in the states of Rio de Janeiro and São Paulo. And, from 1930, Brahma and Antarctica began to seek to distribute their production in new regions of the national territory and acquire small businesses. A national competition was started for the growth of production and distribution in Brazil.

In the 1970s, Brahma acquired companies from the states of Goiás, Ceará, Bahia and Amazonas, and Antarctica acquired companies from the states of São Paulo, Rio Grande do Sul, Amazonas, Bahia, Minas Gerais, Goiás, Espírito Santo, Piauí and Paraná.

In the 1980s, Brahma acquired companies from the state of São Paulo, Paraná, Rio Grande do Sul and Rio de Janeiro. And, Antarctica acquired companies from Rio Grande do Sul, Minas Gerais, Rio de Janeiro, Paraná, Piauí, Paraíba and Rio Grande do Norte.

Thus, in the 1970s, Antarctica already had companies in all regions of Brazil, and Brahma had not only acquired companies in the South, and in the 1980s, both companies already had production in all regions of the country.

During the twentieth century, the great national companies reached the full extent of the national territory, with Brahma becoming the fifth largest brewery in the world in the 1990s and Antarctica among the fifteen largest in the world.

The process of acquisition of small and medium-sized breweries by large breweries occurred in several countries

worldwide, not only in Brazil. The sector presents product heterogeneity, brand diversity and great competition to access consumers.

As an example of the dynamics of growth and acquisitions reference may be made to the Dutch company Heineken. This company was also founded in year 1800 and guaranteed its expansion with the acquisition of companies in countries of North America, Asia and Europe.

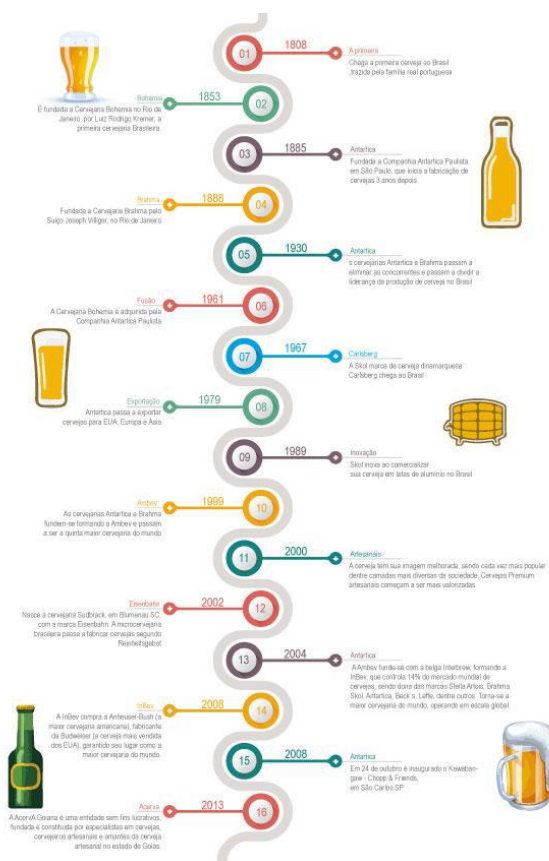


Fig.3: History of beer production in Brazil

Source: Janini (2009), <http://www.asterisko.com.br/a-saga-da-cerveja/>. Organization: Lopes, G.P.

The dynamics of competition between companies, however, became global and, throughout the 2000s, according to Limberger (2016), Brazilian companies were denationalized.

Thus, the market was controlled by groups such as AB-Inbev (and its subsidiary Ambev), which dominates almost 70% of the market, Kirin Brazil, (which acquired Schincariol), Heineken Brasil (which acquired Kaiser and Bavaria), and the Brazilian brewery Petrópolis. In this sense, four companies control 95% of the Brazilian market.

Nowadays the beer industry represents 1.6% of Brazilian GDP. 14,1 billion liters are produced annually. R\$ 21 billion in taxes go to the Government. 38 thousand of vehicles in fleet are used in distribution channels. 2.7 million jobs are involved. Each R\$ 1.00 invested in the beer industry, generates R\$ 2.50 in the Brazilian economy. 1.2 million outlets spread over the country. 99% of households are supplied with beer in Brazil. R\$ 107 billion of turnover in 2017 (Cervbrasil, 2018).

Brazil has approximately 117 thousand hectares planted with cereals destined to the production of beer. There are 610 breweries registered in the year 2017, just before the economic crisis in Brazil, 91 new breweries. There are 3 big companies dominating the market in Brazil; Ambev, Heineken and the Petropolis Group, the three together hold 98.6% of the world beer market (Martins et al., 2017).

Caravaglia and Swinnen (2018) documented when the craft beer movements started in various countries, and how they have evolved. The authors also discuss the role of changes in demand, the role of pioneers in craft brewing, and what factors determined the re-emergence of small brewers. Some of the factors discussed by the authors refer to the role of information, networks, regulation, capital, and technology markets.

V. THE COMEBACK OF SMALL AND MEDIUM SIZE BREWERIES AND THE DIVERSIFICATION OF PRODUCTION

Limberger (2016) identified the geo-economic dynamics of the Brazilian brewing sector, the presence of oligopolies and the emergence of smaller companies that the author called marginal. Marginal companies were considered micro-breweries to produce high value-added beers because they made profits that did not exceed the average profit.

From the 1990s onwards, Brazil presented a highly competitive environment with oligopoly leadership, and from the 2000s onwards, an environment of great potential for consumption of higher quality products was created, the income of the Brazilian population raised, and the lack of diversification of Brazilian beer production, which marketed several brands of distinct qualities, but of similar standards, has been overcome.

According to the Brazilian Institute of Applied Economic Research, between 2001 and 2011, the per capita income of the richest 10% increased to 16.6% in accumulated terms, while the income of the poorest grew notably by 91.2% in the period (IPEA, 2012).

The growth in the consumption of the products of marginal companies, which we call small and medium-

sized enterprises, was also due to the increase in the population's income, which consisted of beers of different standards and higher prices.

Thus, from the 1990s, after a long period of growth of the national brands Brahma and Antarctica, with the acquisition of several smaller breweries, small breweries of artisanal production began to be reborn. These producers had a differentiated strategy, since they were not producing, filtering, pasteurizing and bottling for trade, but producing for sale in barrels, bars or in the factory itself (Limberger, 2016). This phenomenon of craft beer production and appreciation of this production occurred in the 1970s in countries such as the United States and the United Kingdom.

The revival of small breweries comes therefore from artisanal productions, and from socioeconomic change, from enlargement of income, from cultural change and consumption, with the expansion of the demand conditions that allowed stimuli to appreciate differentiated products.

In a very significant group of microbreweries, the initial capital invested in the creation of the company comes from other industrial businesses, being the brewing activity a way to diversify the family business. In this group, we can mention the breweries Bierland, MisturaClássica, Colorado, Burgerman, DaDo Bier and Insana (Limberger, 2016, p.125).

In her analysis of Brazilian breweries, Limberger (2016) identified the following types: craft breweries, independent breweries, commercial microbrewery of the large company, and small traditional breweries.

- Craft breweries: small-scale enterprises, which produce in small quantities, with a small contingent of labor, for limited public, are concentrated in local or regional markets, do not invest in machinery, whose entrepreneurs dominate the productive process, including purchases and sales, whose investments are oriented to the creation of new products, and, optimization of the productive process with adaptations that do not require a large capital contribution.
- Independent breweries: they are companies concerned with increasing production, dynamics in conducting market research, product differentiation and the use of technology used in production. It is a competitor of both artisanal producers and leading companies.
- Commercial microbrewery of large companies: large companies, or leading companies have brands generated by acquiring independent

breweries, most of which operate to compete with independent breweries, are therefore breweries that produce different types of breweries. Beers from leading companies, which in general produce lagers and pilsner (or pilsener) but are controlled by the leading companies. Brazilian examples: micro-breweries Baden-Baden and Eisenbahn, acquired by Kirin, and Wals and Colorado acquired by Ambev-AB Inbev.

- Traditional small breweries: these are breweries dedicated to the production of traditional beers, of low price, and compete with beer brands in the local, regional, national and even international market. In the case of the national analysis, the Industria Nacional de Bebidas (INAB), Zani from Paraná, and Malta and Conti from the interior of São Paulo were taken as examples.

In Brazil, state governments defined craft beer and craft brewers in their legislation. The main aspects are related to limit quantity and marketing strategies (Beni, 2017, pp. 68-70).

The Brazilian craft brewers are organized in the Associação Brasileira de Cerveja Artesanal (Abracerva, 2018). According to Beni (2017, p.71), craft beers are those brewed by one of these three types of breweries in Brazil:

- Brazilian microbrewery: based in Brazil, with at least 50% of Brazilian capital, producing own brands or for third parties, with a total production of no more than 1 million liters annually;
- Gypsy microbrewery: based in Brazil, with at least 50% of Brazilian capital, with own brands and production rights, without own brewing equipment, producing at third party industrial plants, with a total production of no more than 1 million liters annually;
- Brewpub: based in Brazil, with at least 50% of Brazilian capital, producing and marketing at the same place. Marketing is restricted to the brewpub.

The scenario of new breweries completely changed the access to the products and diversified the consumption of the products in the country. They started to live and produce artisan, independent, commercial breweries, small traditional breweries, bars producers, as well as gypsy productions. This diversity allowed the expansion of the consumption of other styles of the drink, which stopped being a sector-only producer of pilsner (or pilsener) and lagers and began to produce diverse other types such as ales, pale ales, witbiers, saurs and others.

In year 2010, the culture of the consumption of more diverse products spread, and the productive sector entered the different states of the country with other forms of production, and other products.

According to the Ministry of Agriculture, Livestock and Food Supply (MAPA) in Brazil, in 2017, 679 establishments were registered as breweries, and presented 8903 registered products of breweries, beers and draft beer. Figure 4 shows the growth of Brazilian breweries 2002-2017.

Gráfico 1: Total de cervejarias por ano no Brasil

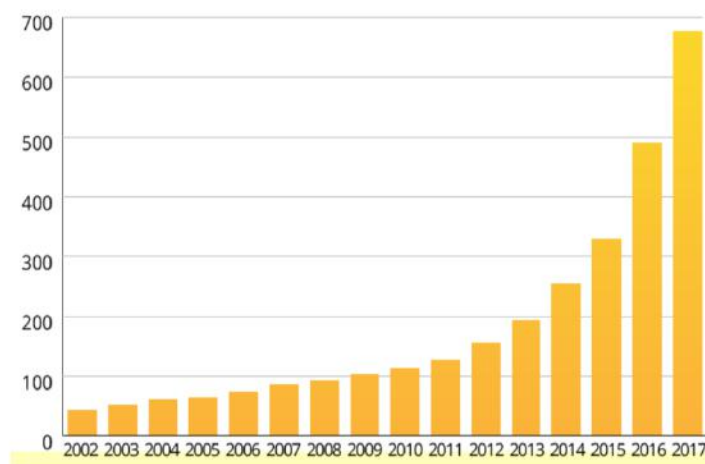


Fig.4: Number of breweries in Brazil, 2002-2017

Source: Ministério da Agricultura, Pecuária e

Abastecimento (MAPA). Available at: <http://www.agricultura.gov.br/assuntos/inspecao/produtos-vegetal/a-cerveja-no-brasil>. Accessed on Sep 2018.

Regarding the geographical distribution of breweries in Brazil, these are concentrated in the South and Southeast regions.

Table 3: Number of breweries in Brazilian states

State	Number of breweries
Rio Grande do Sul	142
São Paulo	124
Minas Gerais	87
Santa Catarina	78
Paraná	67
Rio de Janeiro	57
Goias	21
Pernambuco	17
Espirito Santo	11
Mato Grosso	11

Source: Ministério da Agricultura, Pecuária e Abastecimento (MAPA). Available at: <http://www.agricultura.gov.br/assuntos/inspecao/produtos-vegetal/a-cerveja-no-brasil>. Accessed on: September 2018.

The state of Rio Grande do Sul has the largest number of breweries, followed by the states of São Paulo and Minas Gerais, and Goiás is in the seventh position, according to the Ministry of Agriculture, Livestock and Food Supply (MAPA).

Thus, according to Carvalho et al. (2018), there is a growing market segment with different buying habits and behaviors compared to traditional beer consumers.

Craft beer emerged in Brazil during the 1990s (Krohn, 2018). With the high market concentration of bulk beer production, more and more consumers look for identity products, including beer. This creates new opportunities of interpreting competition and emerging markets.

VI. COOPETITION – COMPETING AND COOPERATING SIMULTANEOUSLY

The idea of coopetition, i.e. the simultaneous coexistence of competition and collaboration, is not new. Taking the chambers of commerce as reference, it is not difficult to understand that these institutions play an important role in the collaboration among competitors to address and solve common problems faced by the industry, such as the standardization of payment systems, lobbying on regulations, etc. One of the first chambers of commerce was found in Marseille, France, in 1599 (CCI, 2018).

The term “co-opetition” was first heard in the business context from the founder of Novell, CEO Ray Noords, in the 1980s: he argued that a company had to be able to compete and cooperate at the same time (Monticelli, 2015). In the academy the issue was introduced by Bradenburger and Nalebuff (1996); with the use of the theory of games as a support, the authors developed the dynamics of this paradoxical approach. Through collaboration, competitors can achieve better performance levels and above average profitability (Czakoń & Rogalski, 2014). As a research field, the issue is in its infancy with a limited body of literature (Ritala et al., 2016).

The firms cooperate to create value but compete for the results (Monticelli, 2015). In the coopetition relationship, agents cooperate in some activities and compete in others aiming at maximizing their gains. These relationships are based on confidence, reciprocity and altruism.

The advantages of the adoption of coopetition abound. With the game theory as reference, coopetition is a positive-sum-game (Bradenburger & Nalebuff, 1996), i.e., it is a kind of game where all the players involved can gain simultaneously. The arguments in favor of coopetition are plenty and can be listed as follows: gaining experience (Cygler & Debkowska, 2015); acquiring knowledge (Salvetat et al., 2013; Monticelli, 2015; Cygler & Debkowska, 2015); developing good business relationships (Cygler & Debkowska, 2015); increasing the size of the market, creating a new market, getting market power, augmenting the efficiency of resource utilization (Czakoń & Rogalski, 2014); accessing international opportunities (Granata et al., 2018); improving innovation capacity (Granata et al., 2018); maintaining competitiveness (Monticelli, 2015); attaining access to resources (Cygler & Debkowska, 2015; Granata et al., 2018; Hamouti, 2016; Maier, 2016; Monticelli, 2015).

There is a special interest in this paper for the access to resources and knowledge coopetition provides. A deal to concurrently collaborate and compete can be a gateway to the acquisition of complementary/supplementary resources. This way a firm can overcome technical, managerial, or infrastructural limitations. In their research, Cygler and Debkowska (2015) outlined that firms should try partnerships with competitors with a strong technological position. The authors argued there is a need for differentiation among the partners' abilities in order to permit an exchange of knowledge and capacity among them. The complementarity of resources is very important in the sense that one partner becomes able to access the other's necessary resources. This sharing facilitates the reduction of operational costs and improves the innovation capacity (Hamouti, 2016). Reporting a research in Southern Brazil, Monticelli (2015) highlighted that a great portion of the small wine producing companies could only have access to international fairs, for instance, because they were cooperating with each other in an integrative project supported by the Wine Brazilian Institute (IBRAVIN) and the Agency for Promotion of Exportation and Investments (APEX). Another example is given by Kempainen (2015) in the European payment system context, where partners compete in the provision of payment instruments and services for end-users but cooperate in building the payment infrastructure and defining relevant standards.

Although the advantages are well attested by the literature, coopetition does not happen without problems. As firms are friends and rivals at the same time, there are conflicts of logic in the cooperation/competition approach

(Ritala et al., 2016). This coexistence might produce a certain tension among the personnel involved; it is a kind of emotional ambivalence (Granata et al., 2018; Kempainen, 2015). To overcome the inherent stress cooperation might bring, employees and managers should be trained to deal and accept the contradictory situation.

VII THE GYPSY BREWERIES AS A COOPERATION STRATEGY

Sorj (2008) studied how capitalism in peripheral areas restores its socioeconomic premises and presents the non-capitalist characteristics of production, which present themselves as complementary and contradictory.

In this study, the productive structure of the coffee export chain in El Salvador was evaluated, as well as the established functional relations, where the non-capitalist appropriations are perceived at the base of the productive system, which, when traversing agents and social structures, reach export activity. They present themselves then, more deeply embedded in capitalist relations.

The author draws attention to the fact that, although more specifically in the case of El Salvador, this type of relationship can be investigated in other Latin American countries.

In the case of beer production, we can see variations in the structure of capitalism, especially considering the uses of small and medium-sized machinery.

It happens that periods of equipment vacancy do not add productivity, and therefore, the relations established between small and medium producers of traditional beers, can be changed to attend artisan producers, pointing to a different use of means of production, with actions of cooperation and sharing of the means of production that at first could be different strategies in the capitalist system.

At first, sharing the means of production with other producers could mean loss of strength and diminishing the competitiveness of that producer holding the means of production. But in a highly competitive environment, it can be a strategy of access to new knowledge through the accompaniment of the artisanal production mode, made available by sharing its space and machinery.

And, in a complementary way, the artisan producer is interested in accessing equipment that does not have capital and structure, and thus enables production, and reaches a greater scale of production even with the sharing of some information through the strategy of collaboration, cooperation and sharing. There is exchange of knowledge for access to idle equipment.

Brewing beer without having a factory for it means producing in a Gypsy, Cuckoo, or Phantom way.

In the Brazilian Midwest, the brewing sector is characterized as one of the most relevant and versatile sectors of the Brazilian economy in relation to the growth and creation of new commercial niches (Lima et al., 2017).

A study by Thomé et al. (2016) suggests that the only significant item to the consumers' luxury value perception in the dimension of financial value is the higher price of premium beers.

According to Lima et al. (2017, 655-656), among the states of the Brazilian Midwest region, Goiás state has more brewers than Mato Grosso, Mato Grosso do Sul and Distrito Federal together.

Thus, although it has been exposed that in Brazil, Rio Grande do Sul stands out, it can also be said that regionally, that is, in the Midwest, Goiás stands out in the production of artisan beers and in gypsy production.

In Goiás, it is possible to identify breweries in the different categories presented above. But in general, the small traditional breweries will be presented to introduce the profile of these breweries in Goiás and present the strategy of the Gypsy Brewery and its partnerships with this type of brewery.

Goiás state is in Central Brazil. The federal capital Brasília is located within Goiás state. Goiás state has beer production structures serving national as well as local production.

According to the Integrated System of Agricultural Products and Establishments - SIPEAGRO of the Ministry of Agriculture, Livestock and Supply, there are 29 registered breweries in the Midwest, of which 18 are concentrated in Goiás.

Of the 18 breweries registered at MAPA, 02 are large breweries, Ambev and Brasil Kirin, and the others are small and traditional breweries, responsible to produce pilsner (or pilsener) and lager beers, and there are also breweries that produce different types of beers, such as Santa Dica.

Table 4: Breweries of the Brazilian Midwest registered at the Ministry of Agriculture, Livestock and Food Supply (MAPA).

CENTRO OESTE			
ESTADO	RAZÃO SOCIAL	ATIVIDADE	DENOMINAÇÃO
DF	JINBEER CERVEJARIA ARTESANAL ME	PRODUTOR	CERVEJA
DF	MAFIABEER INDUSTRIA E COMERCIO DE BEBIDAS LTDA ME	PRODUTOR	CERVEJA
GOIÁS			
ESTADO	RAZÃO SOCIAL	ATIVIDADE	DENOMINAÇÃO
GO	AMBEV S.A.	PRODUTOR	CERVEJA
GO	BRASIL KIRIN INDUSTRIA DE BEBIDAS LTDA	PRODUTOR	CERVEJA
GO	CERVEJARIA GOIAZ LTDA - ME	PRODUTOR	CERVEJA
GO	CERVEJARIA SHERIFF LTDA - ME	PRODUTOR	CERVEJA
GO	CERVEJARIA TEMPLÁRIA LTDA ME	PRODUTOR	CERVEJA
GO	EMPRESA NACIONAL DE CERVEJAS E BEBIDAS S/A	PRODUTOR	CERVEJA
GO	KLARO - MICROCERVEJARIA LTDA - EPP	PRODUTOR	CERVEJA
GO	KLIMA INDUSTRIA E COMERCIO DE BEBIDAS LTDA	PRODUTOR	CERVEJA
GO	LUIZ HUMBERTO GONÇALVES GOMES EIRELI-ME	PRODUTOR	CERVEJA
GO	MICRO CERVEJARIA LHAS EIRELI ME	PRODUTOR	CERVEJA
GO	MICROCERVEJARIA CATALÃO LTDA	PRODUTOR	CERVEJA
GO	MILTON JOCHIMS & CIA.LTDA - ME	PRODUTOR	CERVEJA
GO	NATTOS BEER MICRO CERVEJARIA LTDA - ME	PRODUTOR	CERVEJA
GO	REAL MICRO CERVEJARIA LTDA - EPP	PRODUTOR	CERVEJA
GO	SABA INDUSTRIA ALIMENTICIA LTDA-ME	PRODUTOR	CERVEJA
GO	SANTA DICA BEBIDAS LTDA ME	PRODUTOR	CERVEJA
GO	SANTA LUZIA INDUSTRIA E COMÉRCIO DE BEBIDAS LTDA	PRODUTOR	CERVEJA
GO	SERRA AZUL INDUSTRIA E COMERCIO DE BEBIDAS LTDA - ME	PRODUTOR	CERVEJA
MATO GROSSO DO SUL			
ESTADO	RAZÃO SOCIAL	ATIVIDADE	DENOMINAÇÃO
MS	CERVEJARIA MOBIEER LTDA	PRODUTOR	CERVEJA
MS	CERVEJARIA PANTANAL LTDA ME	PRODUTOR	CERVEJA
MATO GROSSO			
ESTADO	RAZÃO SOCIAL	ATIVIDADE	DENOMINAÇÃO
MT	AMBEV S.A.	PRODUTOR	CERVEJA
MT	BIONDA INDUSTRIA DE BEBIDAS LTDA ME	PRODUTOR	CERVEJA
MT	CERVEJARIA LOUVADA LTDA - ME	PRODUTOR	CERVEJA
MT	CERVEJARIA PETROPOLIS DO CENTRO OESTE LTDA.	PRODUTOR	CERVEJA
MT	DARK SIDE INDUSTRIA E COMERCIO DE BEBIDAS EIRELI	PRODUTOR	CERVEJA
MT	MICRO CERVEJARIA SERRANA LTDA	PRODUTOR	CERVEJA
MT	RODRIGO EDUARDO GUNHA ME	PRODUTOR	CERVEJA

Source: Lima (2017). Available at: <https://portalseer.ufba.br/index.php/nit/article/view/23041/23041>. Access on: September 2018.

Beer production in Goiás therefore represents part of the national scenario, with the production of traditional beers by large industries, and names, global competitors, such as Ambev and Brazil Kirin, with local industries of conventional products and with local industries of diversified products. In this way, the regional and local scenario presents itself as diverse and heterogeneous.

According to the local legislation (Goiás State Law no. 13,194/2016), a craft brewer produces a maximal amount of 5 million liters of beer annually.

In addition to the productions cited, there are Gypsy productions.

So, in Goiás, as in other parts of Brazil, there is an activity called Cervejaria Cigana (gypsy brewery). It is a collaborative activity between bottled and drafted beer producers and craft beer producers.

This action seeks to enable craft brewers to access the structures of small or medium industries to produce on a larger scale. But, at the same time, the small and medium-sized industrial companies come to know the recipes and methodologies of production of the craft brewers. For this

reason, it is a strategy of shared use of structures that benefits both craft producers and industrial producers.

There are some Gypsy Breweries in Goiás. According to interviews with artisan producers and gypsies associated with the Goiás Brewery Association, there are at least 06 Gypsy breweries in Goiás, and at least another sixteen Gypsy breweries in the Federal District that also operate in Goiás. Below the main breweries gypsies who work in Goiás:

Table 5: Gypsy breweries active in Goiás state and their state of origin

	Brewery	Label	Beer types	Municipality of origin
1	Bispo		American Pale Ale (APA) and Blond Ale	Brasília-DF
2	Corina		Double India Pale Ale (IPA), Pale Ale	Brasília-DF
3	Lola		Witbier, IPA	Goiânia-GO
4	Metanoia		Witbier	Brasília – DF
5	MJ		IPA e Pale Ale	Anápolis-GO

6	Pigmeu			
7	Russian Bear			Goiânia-GO
8	Santa Dica		IPA, Hibisco and Kolsh	Pirenópolis-GO
9	Seresta		Lager, Weis and IPA	Goiânia-GO
10	Tortuga			Taguatinga-DF
11	Vila Boa		IPA	Cidade de Goiás-GO

Source: Research results

For the present research, questionnaires were sent to all 11 artisan producers and gypsies in Goiás state to answer the questions related to the forms of production, the impact of this type of activity in stimulating the consumption of differentiated products and the main challenges of this type of production. From the 11 existing gypsy breweries, four have responded our

questionnaire. The main characteristics were shown in Table 6.

Table 6: Main responses of the representatives of gypsy breweries in Goiás state

Question	Gypsy brewery			
	LOLA	MJ	Vila Boa	Corina
Location (municipality in Goiás state)	Goiânia	Anápolis	Cidade de Goiás	
What do you consider a gypsy brewery?	The term summarizes the operation of a brewery by contract, where the industrial plant is contracted, and the contractor is the gypsy.	Brewery that does not have its own factory.	To the one that does not have own structure of factory and establishes a negotiation with another brewery that has this structure of form to produce its own beer (recipe) in this place.	Brand of beers that outsources factory operation to the industrialization of its labels.
How are contracts and forms of action signed? (Factor conditions)	There are two ways: via processing of raw material where the gypsy buys and passes to the brewery the inputs or purchase of finished product	Usually it is a standard contract.	I know only what Vila Boa Brewery signs: A production contract, which establishes values, quantity, conditions and forms of payment. That clarifies about the ownership of the recipe in question.	I know three forms of contract: Shipment of industrialization, Royalties, and Distribution.

	n of the establishment. There are different taxations and different legal figures in each mode of operation .			
How can the production and consumption of gypsy beers access regional or national markets? (Influence on Factor and Demand Conditions)	Firstly, there is a change in the taxation of gypsies (ICMS-ST double taxation in interstate operations, a statute that stands at the supreme court STF) and the emergence of new factories (more capacity)	Generally, they are microbreweries that will sell only to your region.	Through the appreciation of #drinklocal culture, the use of typical ingredients, the joining of beer with local cultural aspects and advertising and targeted advertising.	Through collaborative labels and cross-brand partnerships; structuring of a supply chain specific to the segment, through incentives to the crafted beer production with the due reduction of taxes, especially ICMS.
How can gypsy	By giving more	Facilitates the life	Gypsy production can increase the	With more innovat

production influence local consumption? (Influence on Demand Conditions)	options to the final consumer there is a worsening and warming of the market, encouraging the consumption of fresh produce and the appearance of new products. If it were not the gypsies today, we would only have four local handmade brands.	of those who do not have capital to set up a factory .	market by bringing more breweries to the medium. As the investment in the factory is very high, we would not be able to diversify into brewery, styles and labels the way we are doing.	ive products since as the cost is higher, it is necessary to add value to the product . At the same time, there is more time for research and development.
What are the gypsy breweries in Goiás ? (Related and supporting industries)	It is difficult to have an exact number because it is a market with many new companies. Some that I know of GO: Lola, Seresta, MJ, Vila Boa, Pigmeus,	MJ, Lola, Seresta, Russia n, Vila Boa.	Vila Boa Cervejaria, Seresta, Lola, MJ, Cerrado, Corina, Metanoia, RussianBeer.	Corina cerrado beer, Carolina, Metanoia, Nomoco, Umabeer, Lola, Activista, EntreQuadradas, Bracitorium

	Santa Dica. From the DF: Corina, NoMoCo, Metanoia, EntreQuardras, Tortuga, Bispo. Abracerva must have some data.			
In which companies or structures do these gypsy breweries operate? (Related and supporting industry)	Basically : KlaroMicrobrewery, Cavalo Louco, Colombina andTemp lária Cervejaria (Catalão). But there is practically a monopoly of Klaro, since it was the one that invested the most in volume and infrastructure.	Klaro	BreweryKlaro, BreweryGoyaz (Colombina), Brewery Cavalo Louco	Klaro, Stadt, Cavalo Louco
What kind of	Crafted and independ	Crafted and indepe	Craftedandindependentbreweries.	Crafted and indepen

brewery does your gypsy brewery support? (Related and supporting industry)	endent breweries.	ndent breweries.		endent breweries.
Is there support for the logistics of distribution of gypsy beers? (Related and supporting industry)	Yes. There are autonomous professionals who provide this type of service, as well as some breweries.		No	No
What are the advantages and disadvantages of this way of acting? (Strategies, structure	Advantages: low risk and ease of operation. Disadvantages: limiting the idle capacity of the brewery and loss of competitiveness (the final	There is usually a standard contract.	Advantages: less investment Disadvantages: higher cost, accounting insecurity, low control over the logistics of the production process and difficulty in production planning due to this, subject to constant cost change.	Disadvantage in product cost and distance of quality control. Advantage is in value of investment, lean

and rivalry)	value of the product is higher through the nature of the operation).			operation and time to invest in the brand.
What are the main challenges of artisanal and gypsy production? (Strategies, structure and rivalry)	The challenge is the change of consumer habit, because there is not much appreciation of what comes from the outside yet. On the other hand, you need to invest in technology both on the shop floor and in marketing. This applies to the entire consumer chain.	Sale and distribution.	Win the uneven dispute with the large, the high tax burden, the difficulty in accessing credit lines, and the lack of union of the segment. For gypsies, the challenge is to act together to strengthen and defend exclusive interests.	Quality of equipment, team mentality, production costs and distance from large consumer centers.
Is there cooperation between gypsy	Yes. There is an exchange of information about	No.	Yes. Although the disunity still prevails, there are cooperation in events through invitations to	Yes. Events and labels together.

brewers in Brazil? (Strategies, structure and rivalry)	the operation, processes and contacts of suppliers.		participation.	
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Source: Research results

The answers present the functioning of gypsy production, its potentialities, bottlenecks and challenges. The main elements of this survey are: the importance of supporting the diversification of production, appreciation of culture, knowledge and local and regional ingredients, the use of idle equipment and infrastructures, sharing of knowledge and possibilities for innovation in processes, contractual relations, and products, and as main bottlenecks the lack of support and strategies for distribution of products, to achieve a larger scale of production of these products, fiscal incentives and lower taxation, as criticized by the producers, are the main bottlenecks.

Regarding taxes, Zobaran (2016) argued that the inclusion of Simples Nacional, adopted in October 2016, provided support for microbreweries, but this change did not appear in the producers' arguments. It is worth noting a local movement to encourage crafted beer production, through Law 3053-17, which establishes the Policy to Encourage the Production of Crafted and Drafted Beers in the state of Goiás. This law defines the microbrewery, and the incentives and requirements to achieve benefits such as reducing the rate of 10% for the product in its first and second year of validity, and from the third year this will be set at 17% in the state.

Thus, we can see a dynamic sector with unlimited capacity for innovation with respect to products, with oligopolies and market share with other types, and sizes of production and industries, with constant innovations in products, processes, and management and, with ranges ranging from international to local.

VIII. CONCLUDING REMARKS

The present article was about the consumption of beer as a custom that came from ancient times, which allowed the dissemination of the product in different parts of the globe, made possible the creation of large industries, oligopoly, reached different countries and localities and,

at the same time shares the market space with global and local products.

The industrial and crafted forms of production have not been annulled, and forms of production have arisen that involved processes of sharing the infrastructures of large companies and crafted producers, as in the case of gypsy breweries, cuckoo or ghosts.

The practices of gypsy breweries, therefore, left Europe and gained the world, and came to materialize in Goiás, Brazil. A country that stands out in the production and consumption of beer.

Among the main positive aspects of the practice of gypsy brewing in Goiás, it was possible to perceive the stimulation of diversified consumption, the possibility of using equipment in a more efficient way, taking advantage of moments of vacancy, sharing knowledge, and stimulating improvement in the quality of production, and, among the main bottlenecks are the distribution structures of production, and, the existing taxes in Brazil.

ACKNOWLEDGEMENTS

The authors acknowledge institutional support by Centro Universitario Alves Faria (UNIALFA). This paper has also received inputs from participants of Research Session of Microeconomics of Competitiveness (MoC) Network, at Harvard Business School (HBS), Boston (MA), on December 10, 2018.

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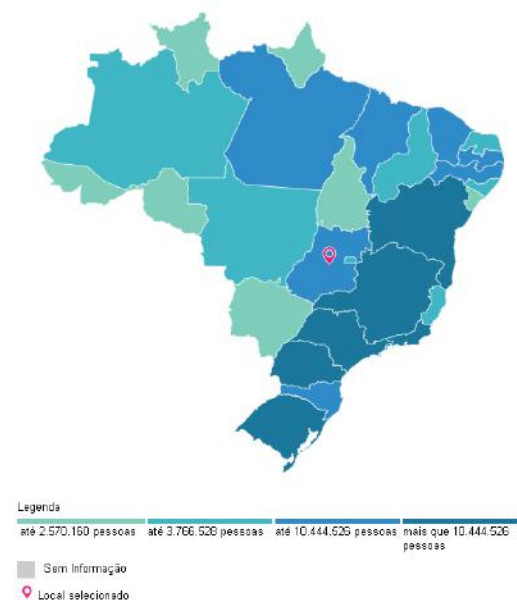
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IX. APPENDIX

Appendix 1: Location map of Goiás state in Brazil



Source: <http://cidades.ibge.gov.br/brasil/go/panorama>

Appendix 2: Time line of growth of Brahma and Antarctica breweries

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Quadro 8 – Principais investimentos da Brahma e da Antarctica nos anos 70

Empresa	Ano	Movimento	Empresa	Localização
Brahma	1971	Aquisição	Fábrica Astra	Fortaleza/CE
	1972	Associação	Fratelli Vita	Salvador/BA
	1973	Aquisição	Cibeb	Camaçari/BA
		Aquisição	Miranda Corrêa	Manaus/AM
1974	Aquisição	Cebrasa	Anápolis/GO	
Antarctica	1972	Aquisição	Cervejaria Polar	Estrela/RS
		Aquisição	Cervejaria de Manaus	Manaus/AM
		Aquisição	C. Bahiana e Alimentos Ciquine	Camaçari/BA
	1973	Fusão	Cervejaria Paulista	Ribeirão Preto/SP
		Aquisição	Cervejaria Pérola	Caxias/RS
		Aquisição	Itacolomy	Pirapó/MG
		Unidades	Fábricas	Goiânia/GO, Montenegro/RS, Rio de Janeiro/RJ e Viana/ES
	1975	Unidade	Pesquisa	Manaus/AM
	1975	Unidade	Fábricas	Teresina/PI
	1977	Ampliação	Maltaria	São Paulo
1977	Unidade	Pesquisa	Paulo de Frontim/PR	

Fonte: Portal Cervesia, 2014; Gazeta Mercantil, 1997; outras fontes. Organizado pela autora.

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Quadro 9 – Principais investimentos da Brahma e da Antarctica nos anos 80

Empresa	Ano	Movimento	Empresa	Localização
Brahma	1980	Aquisição	Cervejarias Reunidas Skol/Caracu	São Paulo e Londrina/PR
	1984	Associação	Pepsico Internacional	São Paulo e Rio Grande do Sul
	1987	Unidade	Pesquisa	Rio de Janeiro
	1988/1989	Unidade	Fábrica	Jacarei/SP
Antarctica	1980	Aquisição	Cervejaria Serramalte	Getúlio Vargas e Feliz/RS
		Aquisição	Cia. Alterosa de Cervejas	Vespasiano/MG
		Associação	Arosuco	Guarulhos/RJ
	1982	Unidade	Armazenagem e beneficiamento de cevada	Lapa/PR
	1983	Unidade	Fábrica	Teresina/PI
1984	Unidade	Fábrica	João Pessoa/PB	

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	1988	Unidade	Fábrica	Rio de Janeiro
	1988/1989	Unidade	Fábricas	Jaguariúna/SP, Canoas/RS, Cuiabá/MT e Rio Grande do Norte.
	1989	Aquisição	Cerpasa	São Gonçalo/RN

Fonte: Portal Cervesia, 2014; Gazeta Mercantil, 1997; outras fontes. Organizado pela autora.

Appendix 3: Picture of Beer Directory, 2016



Source: Anuário da Cerveja, 2016, p. 12 e 13, available at: http://www.cervbrasil.org.br/novo_site/anuarios/CervBrasil-Anuario2016_WEB.pdf

Appendix 4: Map of beer production in Brazil



Source: Anuário do Cervejeiro, 2016, p. 19, available at: http://www.cervbrasil.org.br/novo_site/anuarios/CervBrasil-Anuario2016_WEB.pdf

Appendix 5: Beer production chain in Brazil



Source: Anuário da Cerveja, 2016, p. 15, available at: http://www.cervbrasil.org.br/novo_site/anuarios/CervBrasil-Anuario2016_WEB.pdf

Russian Bear	André Natal	+55 62 929 6-389 66	https://www-1.surveio.com/survey/d/B5S5E2B2D2O1T4M0A
Vila Boa	Vandré	+55 62 965 6-865 66	https://www-1.surveio.com/survey/d/V2X5C2L7U8O4B3S5H
Pigmeu	Edgar Silva	+55 64 920 3-666 22	https://www-1.surveio.com/survey/d/F4K9K9M8K2V6Y4H6D
Corina	Marcelo Branco	+55 61 841 2-468 77	https://www-1.surveio.com/survey/d/K7R7L1L3Y4B1F4P5E
NoMoCo	Gilberto		https://www-1.surveio.com/survey/d/M2S4A7Y9L9G2D9I4D
Seresta			https://www-1.surveio.com/survey/d/K0Y8D6P3O2K8E6E3W
Tortuga			https://www-1.surveio.com/survey/d/X2S4S8W7X6I0F4S1G
Metanoia			https://www-1.surveio.com/survey/d/O3H8N0F6B1L1E1A7A
Santa Dica			https://www-1.surveio.com/survey/d/O0D2G9G5R0O6J6S5F
Bispo			https://www-1.surveio.com/survey/d/N3G9O0X6B8E0A2K5D

Appendix 6: Questionnaires sent out and contacted breweries

Brewery	Contact person	Phone	Link