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Diploma Thesis

Indian Beer Market: Challenges, Solutions for Growth

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DIPLOMA THESIS ASSIGNMENT

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Business Administration

Thesis title

Indian beer market: challenges, solutions for growth

Objectives of the thesis

Objectives

Given the growth in alcohol consumption in the past few years, and the potential for beer production in Indian, the main aim of this master's thesis is to:

- i. Present an accurate overview of the Indian beer market in 2018
- ii. Provide a useful trend analysis for the beer market in India going into the next five years
- iii. Conduct consumer survey. Provide recommendations and predictions for companies and investors looking to venture into the beer business in India based on survey material
- iv. Establish the likelihood of success for small, craft brewers in the country

Methodology

The researcher uses desk-based research to get reliable data and information.

The methods used are mentioned below:

- 1) Survey methods. Data collection through WhatsApp and Facebook, Emails, and other social media.
- 2) Forecasting methods
- 3) Regression method
- 4) Case study (United brewery)

The proposed extent of the thesis

60 – 80 pages

Keywords

Beer Industry, Mainstream Brands, Craft Beer, Indian Beer Consumer, Cultural Change

Recommended information sources

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Declaration

I declare that I have worked on my diploma thesis titled "Indian Beer Market: Challenges, Solutions for Growth" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the diploma thesis, I declare that the thesis does not break the copyrights of any person.

In Prague on 30 November 2020

Kavit Shah

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Indian Beer Market: Challenges, Solutions for Growth

Abstract

In the last ten years, the Indian beer industry has seen a steady growth of 7 - 9 percent per year. The growth rate has remained steady in recent years, with volumes ranging from 70 million cases in 2002 to 155 million in 2008. With the global market experiencing low/stagnating growth in recent years, the Asia-Pacific region is now focused in particular. For example, in recent years, the Chinese beer market has grown at an amazing rate for many reasons. The brewing industry in China was one of the fastest modernizing industries and the Indian beer industry is all set too to mark the progress. As of now, the Indian beer industry is plagued by myriad taxes which vary from state to state as well. No two states or UTs have the same or even a similar policy. Despite recent growth, the beer industry still faces many challenges in India. I will address those challenges in detail in this thesis and solutions. I have also taken up a case study of one of the largest beer brands in India to showcase how any company can maintain profitability in its balance sheet amidst such challenges. In the end, there are certain assumptions and evidence for why India is set for strong growth in beer consumption.

Keywords: Global beer market, Beer market in India, Brewing, Types of alcoholic beverages, Challenges, Solutions, United Breweries – a case study. The beer industry, craft beers, beer consumer, culture change, Indian beer

Indický pivní trh. Výzvy a řešení růstu

Abstrakt

Indický pivní průmysl zaznamenal v posledních deseti letech stabilní růst o 7 - 9 procent ročně. Míra růstu zůstala v posledních letech stabilní, přičemž objemy se pohybovaly od 70 milionů případů v roce 2002 do 155 milionů v roce 2008. Vzhledem k tomu, že světový trh v posledních letech zaznamenává nízký / stagnující růst, zaměřuje se nyní především asijsko-pacifický region. Například, v uplynulých letech, čínský pivní trh rostl úžasnou rychlostí s mnoha důvody. Pivovarský průmysl v Číně byl jedním z nejrychleji se rozvíjejících průmyslových odvětví a indický pivní průmysl je také nastaven tak, aby zaznamenal pokrok. Od nynějška je indický pivní průmysl sužován nesčetnými daněmi, které se také liší od státu k státu. Ve skutečnosti, žádné dva státy nebo UTs vlastně mají stejnou nebo dokonce podobnou politiku. Navzdory nedávnému růstu se v pivovarnictví stále potýkají s mnoha výzvami v Indii. V této práci a řešeních se budu podrobně zabývat těmito výzvami. Také jsem přijal případovou studii jedné z největších pivních značek v Indii, abych ukázal, jak může každá společnost udržet ziskovost ve své rozvaze uprostřed těchto výzev. Nakonec existují určité předpoklady a důkazy, proč je Indie nastavena na silný růst spotřeby piva.

Klíčová slova: Globální pivní trh, Pivní trh v Indii, Pivovarnictví, Druhy alkoholických nápojů, Výzvy, Řešení, Spojené pivovary - případová studie.

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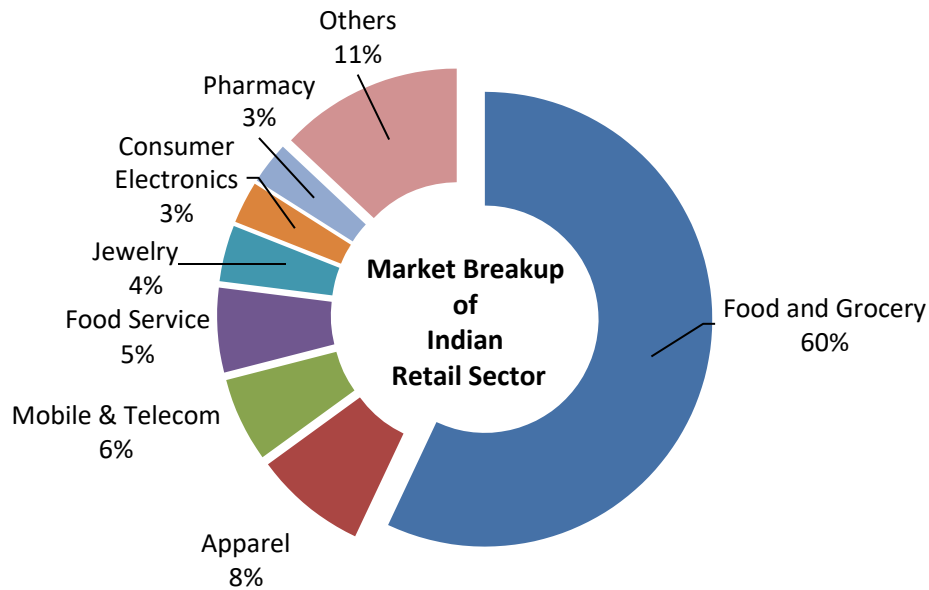
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Introduction

India offers companies throughout the FMCG sector fascinating chances, and the food and beverage market with 57 percent coverage in the entire retail market of India has significant growth potential.

Figure 1. Market Breakup of Indian retail sector



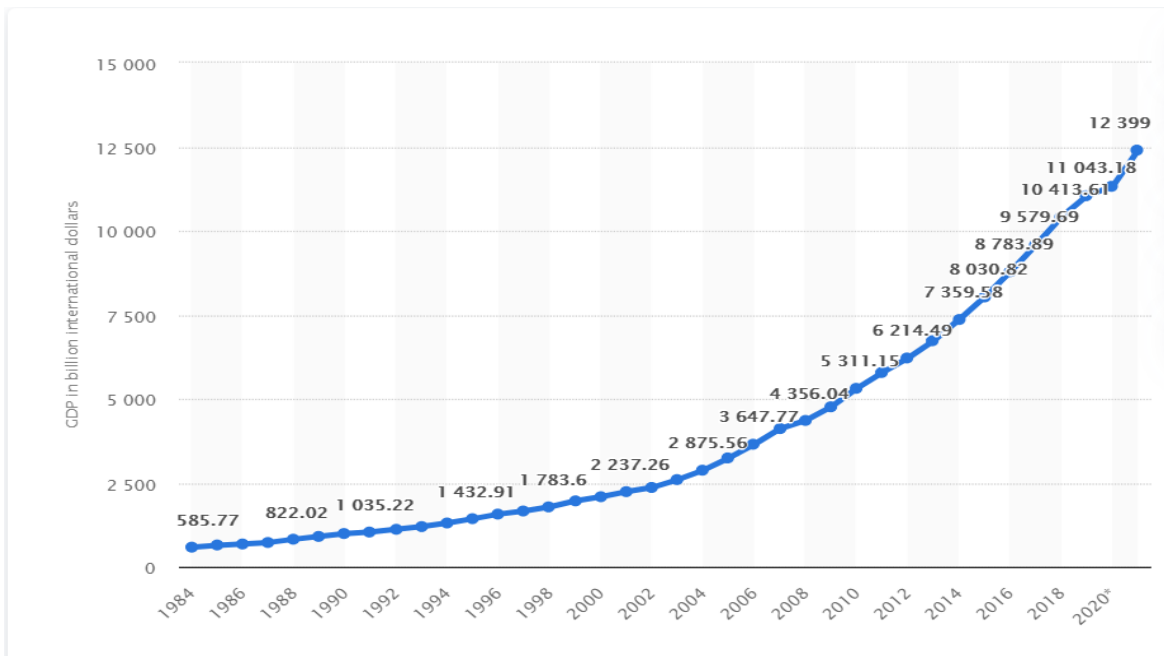
Source: (NM, 2020)

India's population is growing, as is the economy, which also increases the resulting demand for food and beverages. This drives the organized and packaged food and beverage sector's growth and expected growth. This is also an area in which there is significant potential for innovation and added value, as well

as the scope for creating value.

The Indian economy has experienced an impressive auxiliary change in the most recent decade as it has been moving far from being an agribusiness driven economy to an administration's driven economy (Madehow, 2017). India is expected to become the third-largest world economy by 2030, surpassing outperforming economies such as Japan and Germany, with its' burgeoning young and educated middle class – the growth engine for the Indian economy.

Figure 2: Indian GDP Growth



Source: (H. Plecher,, 2020)

India resisted the effect of the post-2008 slowdown on global markets and is now gaining popularity as one of the world’s fastest-growing economies.

India's total annual household consumption is likely to triple in line with economic growth, making India the fifth largest consumer market by 2030.

Figure 3: Today's Indian consumers are

India Rank
by GDP
(Nominal)

11

8

5

3



Younger

More than 50% of consumers are under 30 years of age.



Earning good

Disposable incomes of middle-class families continue to increase.



Aspirational

Seeking better living standards – quality, variety, choices and convenience.



HEALTHY LIFESTYLE

Health & hygiene conscious

Transition to workout, protein-rich whole foods, and organic food.

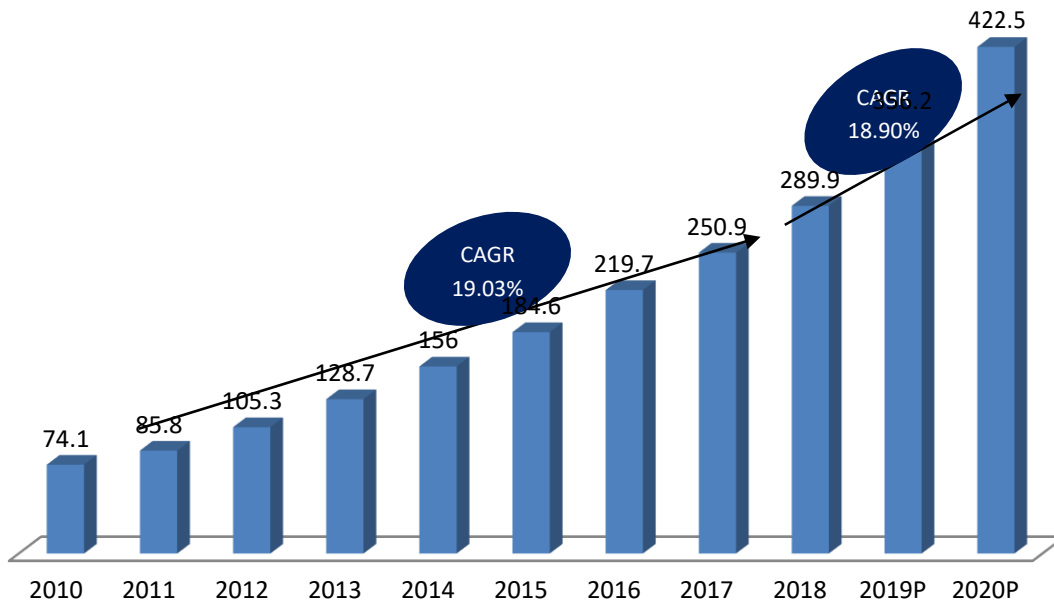


Internet savvy

Prefers online shopping for convenience and discounts.

India's food and beverage industry currently values at US\$290 billion and is expected to reach US\$ 423 billion by 2018, an increase of 18.9%.

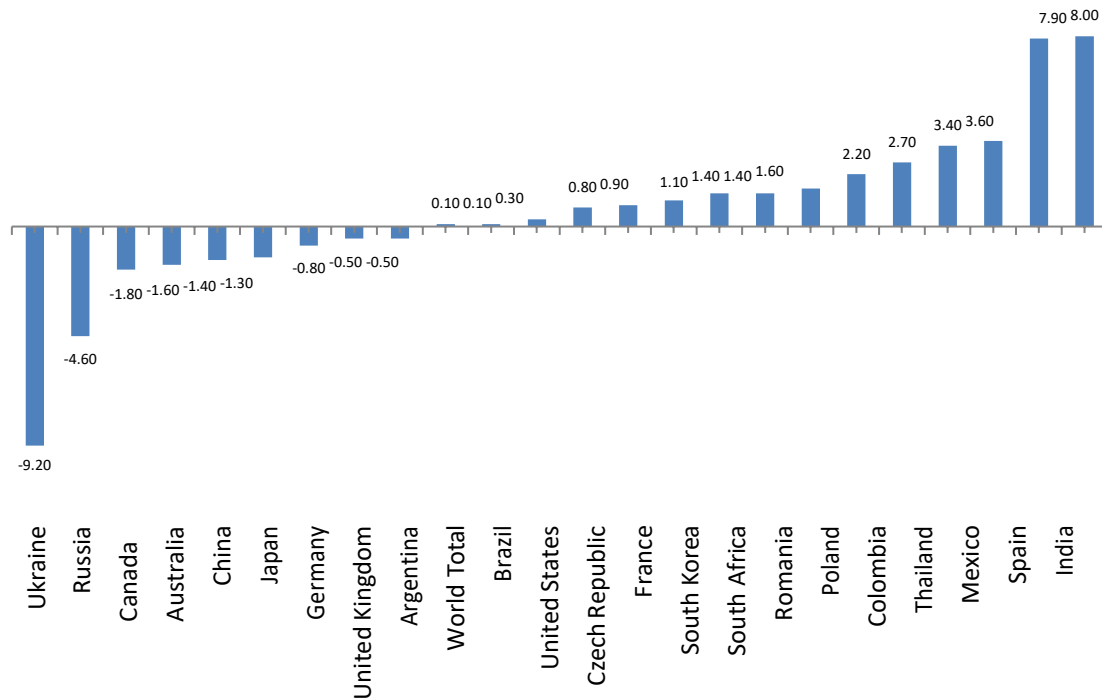
Figure 4: Indian Gourmet Food Market Size



Source: Indian Brand Equity Foundation

Now if we look at the global consumption of alcohol, one may find it has increased. However, some regions have been roughly stable and have resisted increasing portfolio complexity and stricter access to retail. While developing markets are growing, traditional markets have been flat. Look at the alcohol and liquor industry in India. Anyone will be able to see excellent progress here in the last seven years with major brands entering the market (Grant Thornton India LLP, 2014). Beer sales particularly in other traditionally large markets such as Australia and Germany are falling apart from China. This change in consumption is due to several factors, including increased retail access, a shift in consumer preference to craft beer and other alcoholic beverages such as spirits. Consumption has also decelerated in other countries such as the United States. However, even with increased competition from other drinks, consumption in emerging economies continues to expand, such as India, Thailand, South Africa, Mexico, and Vietnam, where demographics and pay per capita have boosted consumption.

Figure 5: 5Y Beer Consumption CAGR (%) by Country



Source: (Jpmorgan, 2018)

We will also see steady growth in this sector in the coming years. The Indian beer market is expected to grow at a CAGR of over 7.6% amid 2018-2024 (Research and Market), while globally it is projected to grow at a CAGR of 1.8%. The growth rate for the beer industry shows the wide range of opportunities for the marketing and/or manufacturing of breweries and beer brands in India (Herz, 2011) Most major distilleries and breweries have now established a base in India, either as a production unit or through distributors and importers.

There are both domestic and international players in the alcohol and liquor industry. Undoubtedly, these players' coexistence has made the Indian beer market competitive and challenging. A cross-section of various types of alcoholic beverages and liquor together with a variety of brands offers Indian consumers an excellent range. Although it is appropriate to say that most drinkers in India prefer hard liquor, beer is quite popular as a drink and is constantly catching up with market leaders.

Domestic players have an advantage when it comes to price over international brands. International players, on the other hand, offer a better taste and quality products, although domestic players have now increased their level to compete with new international competitors. International players must pay relatively high customs duties to market their products to India, and international players must also comply with state taxes, which differ from one country to another (Naukri Hub, 2016). Logistics and warehousing are another issue for global brands to be imported into India, and one of the reasons why some international brands have delayed their market entry.

Pricing is one of the most critical factors for all international brands entering the Indian market, along with taste and quality. Although the market has opened in the last seven years, price is still a sensitive issue in India's marketing products. International players such as Carlsberg and Sab Miller, who previously sold products via distributors, later decided to set up their breweries in India. New international players should test the market using the distributor/importer model: if the initial market feedback is positive, it may be appropriate to set up a long-term production facility. The distributor/importer model has worked well for some foreign beer brands and through this model, they have continued to sell their products for years (Palmer, 2015). Given the lack of raw materials, inferior hop quality, and intellectual property rights issues complicate local production. This is not unusual.

India's pub and bar culture is gaining popularity in the 20 - 45 age group. Although there are more pubs in metro cities such as Mumbai, Pune, Bangalore, New Delhi, and Gurgaon, the tier two cities are closely following. In terms of pub culture, the tier two cities are influenced by metropolitan areas and will be on par with metro cities in India in a few years.

In short, for foreign alcohol and spirits brands, the Indian market offers lucrative growth prospects. However, one must remember that the barriers to market entry are rigid and it takes a lot of effort to evaluate and start a business in India (. At the time of market entry, attention must be paid to high customs duties, barriers to state taxation, inadequate logistics, and storage facilities, which are among the main challenges.

Therefore, the focus of this thesis is to understand the domestic beer market, including factors restricting the growth of beer in India, competitive advantages to a brand for local presence, and competition in the form of domestic and foreign brands/breweries already active in India.

The thesis initially defines basic theory together with what beer is and what beer is made of. Additionally, it provides detailed information on the prominent four beer ingredients: water, grains, hops, and yeast (Viking Malt, 2015). Since the boundaries of monopolies are getting vanished day by day, maybe 'back to basic's can prove as the key to success. Hence, the thesis covers the brewing beer process and the history of beverages exhaustively. Following is the main focus of the thesis as mentioned above: challenges and solutions for growth with a case study of one brand.

2. Objectives and Methodology

2.1 Objectives

Despite regulatory hurdles and tedious consumer sentiment facing the alcohol beverage sector, there is a reiterated belief in steady growth in Indian beer investment. The challenges involved, however, limit the growth pattern anticipation. The Indian market is probably complicated to operate particularly for international investors facing some regulatory barriers. Despite the challenges, however, India's beer market continues to grow steadily with many international investors setting up their industries locally and others using the importer or distributor model (The Global Brewery Industry, 2015).

Due to the steady growth of the beer market and an increase in drinking habits despite the existing challenges, it is essential to examine the factors that influence beer consumption. Exploring the factors that attract international as well as local investors to the Indian beer market is also vital. Research on the beer market in India is therefore significant as it allows research into consumer behaviors and backgrounds that influence their emotions, thinking, and decision-making. Notably, when developing market plans, understanding individual variables that enhance demand is crucial to an investor (Background Overview of Beer Market in India, 2016). Thus, investors need to understand the market trends in the beer industry in addition to market forces

such as demand and other forces. The survey thus provides the current beer market situation and forecasts future status as well.

The thesis also explores the rationale behind high taxation, customs duties, and other regulations required by international investors. Research on the beer market in India is therefore important as it reports on different key aspects of the beer market in India.

Research Questions

Beer market research in India aims to answer the question about the reasons for the steady growth of the beer market in India.

1. Why are international investors attracted to the Indian beer market despite the high tax barriers, customs duties, and inadequate warehousing and logistics conditions?
2. What is the beer market's future in India and how can it be enhanced?

2.2 Methodology

The following section will discuss the methodology used to conduct this thesis and will demonstrate it. The first part of the chapter is devoted primarily to a presentation and discussion of the research methods applied in this thesis along with a presentation of the participants who participated in the qualitative and quantitative methods of the thesis research. The second part focuses on describing the procedure and analyzing the data collected for this thesis.

2.2.1 Survey participants

For this thesis, 70 individuals – varying in their age, income, and gender – were selected to be contacted. In early 2020, they were contacted by email or different social media channels and asked if they were willing to give interviews. Fifty of them were willing to be interviewed. The other fifteen were occupied in that timeframe and the rest five were unwilling to participate. The participants chosen to be contacted were either professional working in multinationals in big cities, students, and some elders in their 40s or 50s. For privacy reasons, I am not sharing the names or any other personal information of participants.

2.2.2 Survey method

To carry out this research, a qualitative method was used. When the purpose of the research is to find out what is in the mind of the subjects, a qualitative method is used. This type of research is carried out to get a rough idea of the person's perspective being studied. To learn more about matters that cannot be directly observed and measured, qualitative data is collected. Qualitative methods of research can be traced back to idealism and phenomenology, for example, where the main emphasis is that the individual is the principal interpreter of reality. People's actions can be explained only by collecting data on what the people are putting on their circumstances and experiences (Creswell, 2009). The focus of qualitative research is to collect data on how people interpret their environment and circumstances. The result of qualitative research is not a statistical comparison, the results are concepts and themes that describe what is common with the experiences of 50 or individual groups of people.

2.2.3 Conceptual framework of methods

Methods such as abstraction, synthesis, observation, and deduction from the proper books and articles for data collection were used in the theoretical part. Varieties of resources – such as breweries' reports, regional breweries blogs, reports from brewer's association, reports of the beer market in India from research firms, and research articles – were processed to fulfill the objectives of this thesis. To determine the per capita consumption of beer in India now and in the future, a forecasting method was used. To understand how various variables such as income and beer price can affect beer consumption in India, a regression model was employed. At least a decade of data is taken to determine the accuracy of the relationship between model variables. As independent variables, beer consumption has been established as the dependent variable, income, and price of beer.

3. Literature Review

3.1 Theory

Brewing a beer is a complex mélange of taste, skill, technique, testing, and error. The theory section of this thesis will help the reader understand what makes great beer brewing possible. With an emphasis on the design of a great beer, I have explained what beer is made of and brewing essentials. The basics of beer are explained by the big four ingredients and the process of brewing it. Besides, how other common ingredients add a particular taste to beer is also described.

3.1.1 What is Beer?

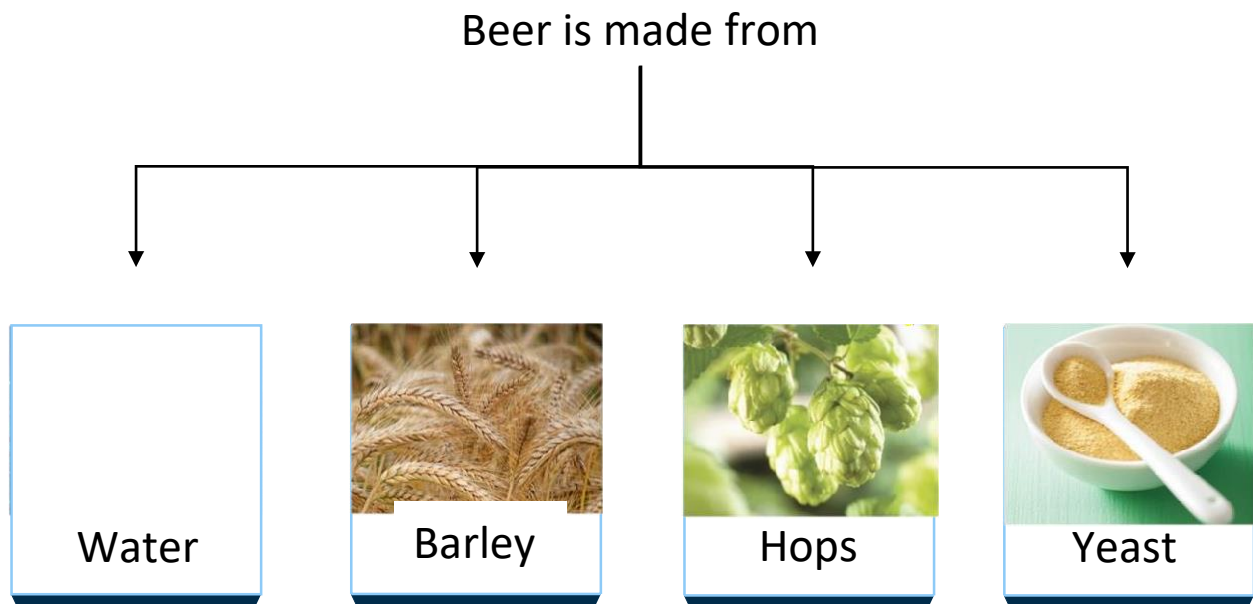
Beer is an alcoholic beverage usually made of malted cereal grain (such as barley), which is flavored with hops and is brewed slowly. Beer is ale or lager these days. Ale meant a hop-free brew in the past, and beer with hops. Since hops are nearly universal, ale usually refers to beer produced by top fermentation. This is fermentation with yeast that floats at temperatures of up to 22 °C on top of the liquid. This creates a rich variety of flavors. The ale undergoes a slow secondary fermentation after primary fermentation. The beer develops its flavor and lights natural carbonation as it matures. (Ray, 2000)

Lager is produced by base fermentation at lower temperatures (6 – 14 °C). It is then stored at close to freezing for several weeks or months, during which time the lager ripens.

Nevertheless, fortunately, the basic formula for beer has remained the same for beer lovers and beer newbies everywhere for centuries: *beer is the fermented, alcoholic product of the careful combination of water, malt, hops, and yeast*. That's it. Beer styles and versions are endless, but the following sections explain what beer is made of and how it is prepared (Chappell, 2012)

3.1.2 What Beer is made of?

Figure 6: Beer is comprised of



The Bavarian *Reinheitsgebot* of 1516 expressed that beer could only be produced using three ingredients, water, barley, and hops. Yeast was included in the nineteenth century after Louis Pasteur recognized it as a fermentation agent. For the most part, only these four ingredients still make the beer (Five Mostly Ongoing Consumed Beers by the Residents, 2014). But the list is not complete now and has never been complete. Before hops were widely adopted in the fifteenth century, beer was bitter with a herbal mixture often called *gruit*. In addition to *gruit*, a variety of other ingredients, including other grains, sugars, fruits and vegetables, and spices, have long been part of the brew master's toolkit.

3.1.3 The Big Four Beer Ingredients

3.1.3.1 Water

Beer is up to 97 percent of water. It only makes sense that why water quality has a significant impact on beer quality. The mineral content of the brewing water is vital to the brewing process due to the chemical processes involved. Water is essential for brewing because its pH and mineral content affects the taste of beer and certain aspects of the brewing process. Pure water with a neutral pH allows the brewer to begin off with a fresh start without having to distill the water.

When starting to blend it is vital to recognize what sort of water you are managing. It is therefore critical to comprehend the main components of water and how they affect the beer. Water is, obviously, H₂O with a variety of natural minerals and salts. Calcium is one of the main factors affecting hardness in water and plays a role in the mashing process (Puza, 2014). Magnesium likewise adds to water hardness and is a yeast nutrient. If there is not excessive of it, Sodium brings a certain sourness to beer. Too much Sodium (above 5 ppm) may kill the yeast. Iron adds a metallic and earthy flavor to the brew, but should always be below 0.3 ppm (Ray, 2000)

Water has such an impact on the final result of beer that the same brewing recipe used in various parts of the world can produce two completely different products. To mimic the original water quality of certain cities such as Munich and Pilsen, some brewers add mineral salts to their water. Undoubtedly, a variety of waters produce a range of beers. The brewery water has traditionally determined what type of beer the brewery produced (Bessette, 2010). The water is quite soft in the Czech town of Plzen and perfect for brewing the great pilsners and lagers they are known for. London, on the other hand, has access to harder water, perfect for porters, and is famous for its dark beers (Ray, 2000)

Local water available to the brewery has long defined the unique taste in a beer. NPR's The Salt's Bill Chappell (2012) explains that breweries are limited by the quality of water they have and that they make the style of beer that best suits their water. Chappell continues that in major winemaking and brewing, everything has become so sterile, but some brewers bring beer back to its roots by introducing "terroir" (the flavor produced naturally from the local area) that

local water supply. Many big breweries account for water as an influential factor to make their beer unique. It is therefore recommended that a brewer thoroughly knows his water before the brewing process begins. (Chappell, 2012)

3.1.3.2 Grains

Grain provides the beer's body and usually in the form of malted barley (Viking Malt, 2015). It is important to understand the malting process before entering the different types of grain used. Beer is not only made of dried grain. Viking Malt, one of the world's most renowned malt manufacturers, based in Finland, explains this very briefly:

Malt is a natural product that germinates grains. Old malt is accurate and has sharp senses, cultivated through experience, requires a successful germination process. Maltster determines the exact time required for each stage of the germination process based on these attributes. The duration of the malting process can, therefore, vary from seven to ten days (Viking Malt, 2015).

Figure 7: Malt processing cycle takes approximately seven days and is shown below



Malting is a process of three steps. Steeping is the first step in rinsing grain and letting it soak in tanks. During the steeping process in wet and dry periods, the amount of water in contact with the grain varies to produce the best environment for which the grain can start to germinate. Germination is the next step in the process. During the steeping process, it is continued to produce enzymes in the grain (Reis, 2013). This allows the natural sugars to be released into the grain so that the yeast can later be used in the brewing process. The final stage of the mating process is kilning, which is essentially moisture removal from the grain. Kilning stops germination before the seeds start growing again. During this stage, the heating, drying, or roasting of the grain is what develops in malt aroma and color.

Figure 8: Malt Types



During barley kilning, color intensity and roasted flavors can be controlled. The higher the temperature darker (black) the malt goes.

Most of the grain used in a typical beer is barley, but not the only. With the increasing popularity of craft breweries and home brewing, brewers produce beer with almost any grain. Although wheat, oat, and rye are the most used grains, brewers also use corn and rice. Rye malt is darker than barley malt and gives bitterness and sweetness to the beer (Jackson, 2002). The use of corn and rice in beer is a hot topic for beer enthusiasts as it is relatively cheap and adds little or no taste to the beer. The controversy is that large brewers can use rice and/or maize to reduce costs. Rice and maize, however, can give a beer a light color and a soft body without adding unwanted taste when used correctly (Mike Reis, 2013).

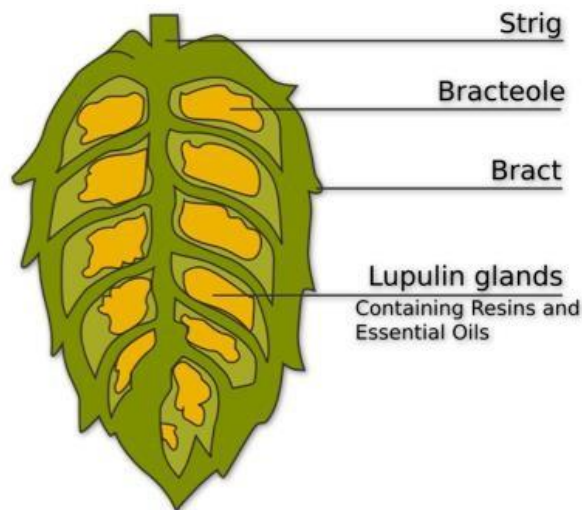
The fundamental distinction that makes many breweries exceptional against traditional microbreweries' items is that they don't settle on their malt by utilizing extracts or modest and low-quality products. Chris Blancette (2015), Brand Experience Manager with Central City Brewers + Distillers, says that malt is picked very cautiously to brew the perfect color into beer and uniquely

arrange complex flavors. Brewer Grant Puza (2014) points out that while hops are critical for the production of beer, the body, and base of the beer come from malt and that breweries use the absolute best malt to make the best possible beer. (Grant Puza, 2014)

3.1.3.3 Hops

Hops are the beer spice. They provide bitterness to balance the malt's sweetness and aromas from citrus and pine to earthy and spicy. Hops are the cannabis family's cone-like flower of a fast-growing vine (actually a *bine*). Waxy yellow lupulin glands hidden in the flower leaves contain the acids and essential oils that give character to hops. Bitterness comes from alpha acids that need to be chemically altered by boiling to be used. Hops contain 250 to 300 different chemical compounds somewhere. These compounds can be found in citrus fruits, celery, and blueberries (Jackson, 2002). Craft brewers are very serious about their hops and are not afraid to use much, although hops are not present significantly in mainstream beer because the average beer consumer has not yet acquired the bitter taste they produce (Blanchette, 2015). (Plants For A Future, 2010)

Figure 9: Hop Flower Anatomy



The hop cone, or flower, is responsible for giving the beer its floral aroma and bitterness. The lupulin glands produce bitter compounds and they are extracted during boiling.

Source: (Brian, 2014)

Hops were considered relatively new to the brewing industry as they have been used in beer for approximately 500 years, compared to the thousands of years of production of malted alcoholic beverages. Before hops, brewers used a combination of many spices and herbs to balance their fermented drinks ' malty sweetness (Ray, 2000)Hops are also responsible for one of the distinguishing measurements of beer: The International Bitterness Unit or IBU. The number of IBUs a beer has is a formula derived mathematically and not how much hops taste in a particular beer or how bitter the taster perceives the drink (Harbison, 2013). From an IBU perspective, a typical light beer has between 8 and 12, pale ale has up to 45, and double India pale can have up to 100 IBU.

Technically, hops can be divided into two main subgroups: aroma hops with lower acidity and strongly fragrant oils and bitter hops with high acidity (Freshops, 2014). Everything to do with hops begins with the four European noble varieties: Hallertauer Mittelfrüh, Tettnang, Spalt, and Saaz. They have been named after the cities they grew up in. Saaz hops, for example, are produced in many places, but only from Žatec, the Czech Republic, and the surrounding area can the original aroma hops be obtained. (Carpenter, 2015). Brewers must be careful to select the hops they want to use, as the purchase of the same variety from different growth areas can result in altered results.

Hallertauer Mittelfrüh and Saaz are the two most known hop varieties in continental Europe. A delicate and floral variety with hints of lemongrass is Hallertauer Mittelfrüh. On the other hand, Saaz offers a fresh and clean taste with chamomile notes. Goldings and Fuggles are Britain's top hops. Goldings, or Kent Goldings, is a beautifully citrus hop with a touch of cedar that is also earthy. Fuggles is aromatic and bitter with tropical flavor suggestions. Finally, Mount Hood and Cascade are some of North America's most famous hops. Mount Hood is a Hallertauer Mittelfrüh hop offspring and full of herbal and floral aromas. It also has an elderflower, apple, and mint hint. On the other hand, the cascade has a strong pine and citrus presence. It is very aromatic and initially originated from a variety of Fuggles. Thanks to the use of hops which provide so many opportunities and combinations of beer.

3.1.3.4 Yeast

Brewers are said to be making wort (the word for unfermented beer) and yeast is making beer. The leaves metabolize grain sugars and produce alcohol and CO₂. Yeast also provides a variety of other fermentation by-products, such as phenols and esters, which add significant flavor and aroma to beer from refreshing fruitiness to peppery spices. Two main types of yeast are usually called *ale* and *lager*. *Ale* yeast ferment at temperatures between 65° F and 75° F. Higher fermentation temperatures promote the production of larger amounts of esters and phenols, leading to beers with more flavor and aroma. *Lager* yeasts ferment between 45 ° F and 55 ° F. Cold temperatures inhibit the production of various by-products of fermentation resulting in beers with a "clean" yeast profile. Some styles of beer are fermented with a variety of wild yeasts and bacteria that produce diverse, funky flavors from sour to barnyard. (Beeradvocate, 2019)

3.1.4 Other common beer ingredients

3.1.4.1 Unmalted grains

Many unmalted adjunct grains are commonly used in beer in addition to the malted grains listed above. These grains add flavor, improve mouth feel, lighten body and color, and make gluten-free beers. The adjacent grains include corn, rice, wheat, rye, oats, and sorghum. Maybe the most common example of the use of these grains is the International Lager style, which typically contains up to 30 percent rice or maize. Others include Stout (oats) and Wheat Beer (wheat).

3.1.4.2 Other sugars

In beer, the use of non-grain sugars is probably as old as brewing. Although yeast cannot ferment all-grain sugars, these other sugars are often completely fermentable. For this reason, drinking in very strong beers can be improved by lightening the body without sacrificing the desired alcohol content. In Strong Belgian Ales and English Barleywines, this is a common practice that can be thick and cloying when made entirely of grain sugars. Besides, non-grain sugars are used to improve the flavor and color of the beer. Brown sugar, cane sugar, molasses, honey, and caramelized sugar syrups used by Belgian brewers are common brewing sugars. Some American craft brewers try more exotic sugars such as Thai palm sugar.

3.1.4.3 Spices

The use of beer spices goes back to the days before hops. As mentioned earlier, brewers used a mixture of herbs and spices called *gruit* before hops became the preferred bittering agent for beer.

Figure 10: Typical Gruit Herbs



Image source: (Andre, 2015)

Today, it is still favored to use herbs and spices to add flavor and aromatic qualities. Perhaps every spice in existence has at some point found its way into beer. Typical spices used in brewing include cinnamon, nutmeg, allspice, coriander, paradise grains, ginger, orange peel, heather, and anise (The Beer Temple, 2011). In holiday ales and winter warmers, spices are commonly used. Belgian brewers are known for the subtle use of spices in beers like Saison and Belgian Wheat Beer, which are flavored with coriander and bitter orange peel.

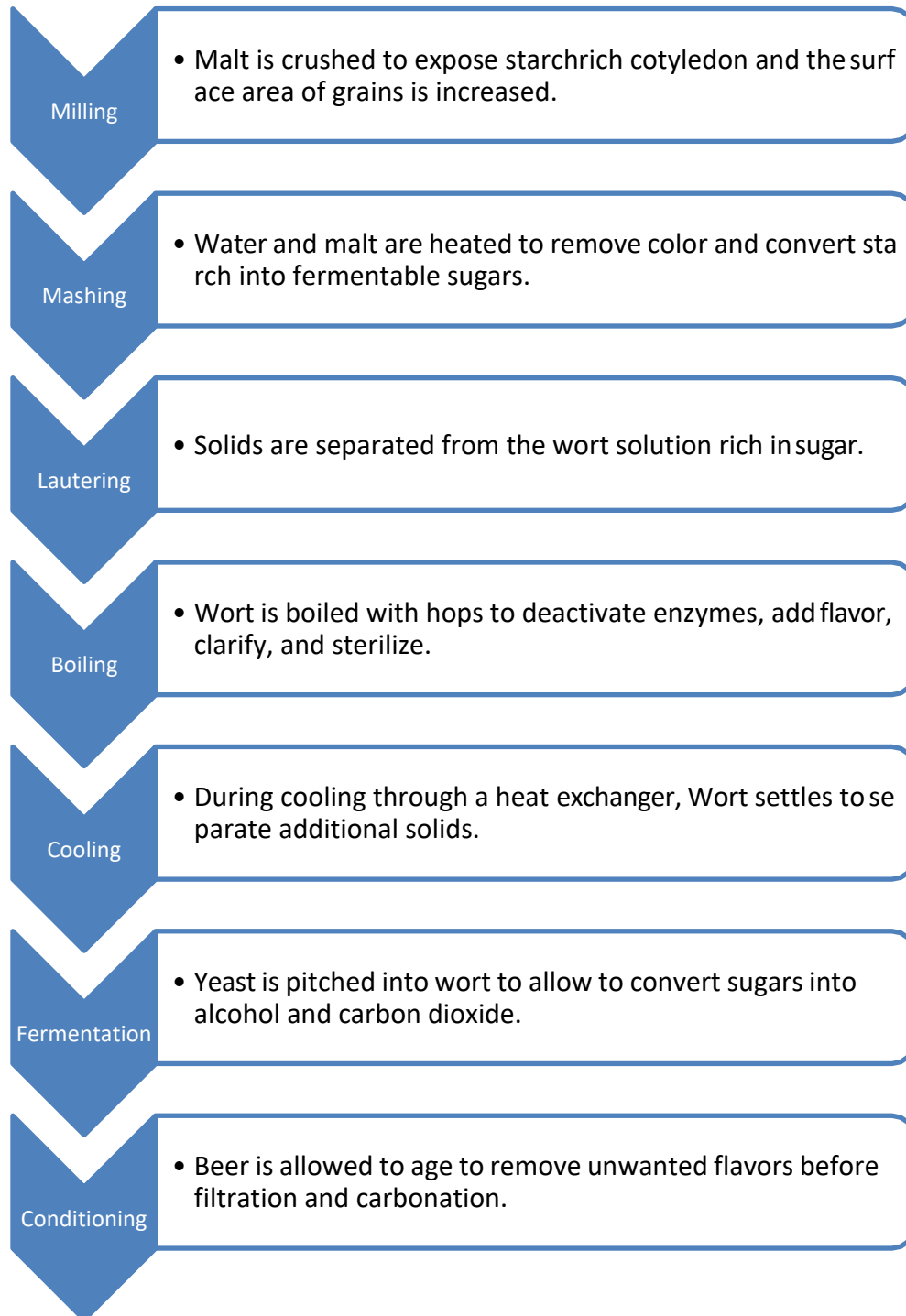
3.1.4.4 Fruits and vegetables

For flavor, aroma, color, and fermentable sugars, fruits and vegetables are used in beer. In wheat beers and Belgian sour lambic beers, fruits such as berries, apricots, and cherries are most often used. Sometimes, they are also used in other styles, including porters and stouts. American craft brewers experimented with a wide range of beer vegetables, including pumpkins, sweet potatoes, beets, and chili peppers.

3.2 Brewing Beer

Brewing beer is an old process that for thousands of years has been refined and perfected.

Figure 11: The Brewing Process (Cleo von Siebenthal, 2014)



A brewery is where a brewer manipulates to create the perfect growth medium for yeast. As shown in the above figure 11, the brewing process looks simple on the surface (Beeradvocate, 2019). But if you look a little deeper, you find a complex set of chemical reactions in beer production.

3.2.1 Milling

Milling is just what it sounds like milling or crushing the malted barley/grains to bare the starch inside the grain. In theory, the most starch fermented by the yeast would be the complete pulverizing of the malt. This is not practical, however, because the clear wort (the lautering process) would be almost impossible to get out of the mash. The grain husks can be easily filtered out of the wort when malt is properly milled. The roller mill is the most typical method used in craft brewing applications (. The mill works by spinning two cylinders at a specific distance from each other on their long axis, which crushes the malt between them. The cylinder's distance affects the size of the produced grist. As the name suggests, although partly, many brewers mill by hand as automatic milling machines are costly, mostly because they take a literal hands-on approach to brewing. (Cleo von Siebenthal, 2014)

3.2.3 Mashing

Mashing is the process of adding water to the milled malt and heating it so that the enzymes can convert starches into sugars. As a result, sugars can be converted to alcohol and CO₂ for the fermenting process. Different barley enzymes work best at different temperatures so that the brewer closely observes the mashing process. Yeasts can easily convert the sugars produced at lower temperatures, unlike those produced at higher temperatures. Therefore, mashing at a lower temperature makes a dryer beer, and higher temperatures mashing vice versa. By fluctuating the mashing temperature, the brewer can control the dryness of a beer. It takes about one to two hours to wash. The liquid is quickly boiled at the end of the mashing process to kill the enzymes. Brewers constantly tweak and perfect their mashing times and temperatures to make the most of their recipes, while others use unique mashing methods Several brewers spend a good amount of time focusing on improving their mashing techniques to give their beer the edge over a generic beer.

(Cleo von Siebenthal, 2014)

3.2.4 Lautering

The brewer sees the liquid that becomes beer for the first time during this stage. Lautering separates the used grist from the wort. The filtering occurs when the mash is moved to a vessel with a false perforated base. The Grist remains on one side and the wort drains to the other side. During the lautering stage, extra water is added to extract the most starch from the malt. A variety of sparging methods are used by different brewers to obtain the desired levels of fermentable sugars. Some brewers add water during drainage and others only after the wort has been completely removed. Excessive sparging again is not good because the tannins are being flushed into the wort. These tannins are not the kind of bitterness brewers are looking for. (Cleo von Siebenthal, 2014)

3.2.5 Boiling

After lautering, one of the brewer's wort begins to boil. Boiling usually takes between one and two hours. While boiling is essential for many reasons, sanitizing the beer was the most important thing in (Cleo von Siebenthal, 2014)history. City water was in horrific shape in many places full of toxins and microbes. The boiling of the wort made the water safe to drink, although the beer founders did not know what made it non-toxic during the brewing process. Boiling the wort also stops the enzyme process by denaturing the proteins and dissolves the oils in hops and isomerizes them. Hops added in the boil earlier are intended to bitter the beer, while hops added at the end add aromatic quality. During this stage, compounds formed by the Maillard reaction combine to create more desired flavors. Evaporation also removes certain unwanted compounds.

3.2.6 Cooling

After boiling, the wort is pumped through a heat exchanger to cool at fermentation temperature as quickly as possible. Rapid cooling minimizes the risk of bacterial contamination and causes more haze to precipitate proteins (cold break).

3.2.7 Fermentation

The wort is fermented into an alcoholic beverage when the liquid is finally processed into beer. Fermentation occurs when yeast and sugar are present in the right atmospheric conditions (temperature). The yeast reproduces sugars and then metabolizes them, producing CO₂, alcohol

and a host of other flavorful and aromatic compounds that add beer complexity. There are mainly two general forms of beer fermentation, top-fermentation and bottom-fermentation, and one special form, spontaneous fermentation. For the production of ales, top-fermenting yeast is used. The yeast forms ahead of or plumes on top of the liquid after the process is completed. After fermentation, the bottom-fermenting yeast settles down the tank where it is siphoned off. In the production of lagers, bottom-fermenting yeast is used. Spontaneous fermenting is some combination of the mentioned above two forms. Belgian lambic beer, for example, is produced by spontaneous fermentation.

3.2.8 Conditioning

Conditioning the beer means that the taste and mouthfeel are improved in some way. Yeast produces many compounds leading to flavors such as green apple, butter, and honey. Conditioning allows the brewer to control the accent or removal of these flavors. A wide range of conditioning methods and styles are used to produce very different effects. Conditioning can also be referred to as a secondary fermentation in which the leaves have broken down all sugars and then focused their attention on manipulating the remaining fermentable. For a few weeks, generic beer is conditioned in gigantic vats under strict temperature control, while craft beer can be filled with an old wine or liquor kegs or even fermented with bottles (Palmer, 2017). Exclusive and unique fermentation techniques are used by many brewers to bring aroma and flavor to their beer that generic brands do not have. Everything depends on the taste and style of the brewmaster.

By using the correct ingredients and following the mentioned above steps, making beer looks as smooth as if somebody can do with their eyes shut. However, it is difficult to make good beer. Brewers make choices at each stage of the process, from the selection of ingredients to the determination of mash and fermentation temperatures, all of which have a significant impact on the quality of the final product. It takes skill, scientific knowledge, and some intuition to put together all the pieces in the production of great lagers and ales. Brewing is an art.

3.3 History of Beverages

3.3.1 Global

Almost in all civilizations dating back to 3000-2000 BC, there is a reference to and description of the use of alcoholic drinks. Alcohol has been used in different cultures for medicinal, social, religious, and recreational purposes.

The recent revelation of beer jugs from the late Stone Age has shown that fermented beverages existed deliberately at least as early as the Neolithic period (Cir. 10,000 BC). While it is conceivable that some pre-agricultural people had alcoholic beverages, however, no hunter-gatherers considered in this century have been seen to make such a substance. Thus, it is estimated that the widespread use of alcohol probably only began after agriculture appeared. (Foundation for a drug free world, 2006)

3.3.2 Indian

Liquor refreshments in the Indus Valley development showed up in the Chalcolithic Era (Copper Age). As early as 200 B.C., the civilization of the Indus Valley appears to have practiced not only alcoholic fermentation but distillation also. The excavation has uncovered items from the day, which form the complete assembly of distillation equipment from Taxila, and numerous remains from the excavation of Shaikhan Dheri (Charsadda, NWFP, Pakistan). These 'Gandhara stills' were utilized to distill an alcoholic beverage which may well have been the inebriating liquid called sura, got from fermented rice and grain and criticized in the Rig Veda.

Even though from the earliest starting point, drinking was disliked in the Rig Veda and accordingly dependably prohibited for Brahmins and understudies, the Sutras order that strong liquor is served to guests when they enter a new house or when a bride enters the home of her husband. The warrior class of Kshatriyas and the trading community, the Vaishyas could take alcohol blended from nectar, mahua flower, or jiggery however not from fermented grain.

Alcoholic beverages were produced using maturation and refining of grain (prusanna from fermented rice flour, kashaya, masara from barley gruel, and svetasura); flower (jathi the jasmine and parisutra and varuni from the mahua flower); and fruits (kadambari from kadamba fruit , khajurasa from dates, kaula ber, madhu and mridvika from grapes, and saharasura and

mahasara from mango). The sweet exudates from the spheres of the Palmyra or coconut palm have been fermented into thalakka (thari or toddy), a practice that is very popular in southern India (and remains so far).

As the stature of its trade with Rome in the early Christian time, southern India also imported wine amphorae for use by the respectability. However, the usual drinks were arrack, toddy, and a range of high flavored rice wine.

The Ayurvedic text portrays both the beneficial use of alcoholic drinks and the consequences of inebriation and liquor-related maladies. The majority of the general population has continued to ferment a portion of their crops and nurture themselves with the alcoholic products throughout. However, devoted followers of Buddhism as well as members of the Hindu Brahmin caste are still abstaining today.

3.3.3 Medieval India

While the Kuran precludes the utilization of liquor and rounds of a chance since in both, there is incredible sin and mischief the Muslim nobility in India, with a few exceptions, however, absorbed alcohol. From the earliest starting point of the Sultanate time frame in Delhi to the Mughals, regular use of alcoholic beverages is frequently referred to. Babur, the first Mughal head, would have occasional episodes of forbearance, when he would break up his gold and silver flagon and goblets, only to resume drinking and using bhang. Even though, Akbar the incomparable Mughal seldom drank wine. His successor Jahangir was a prodigious drinker, and by the end of his reign, he would drink twenty cups of double-distilled liquor every day, 14 in the day and the rest in the evening. A drinking game in 1612, which Emperor Jahangir granted Captain William Hawkins (1575-1613), the first Englishman to reach Jahangir's court, a vital trade concession to the East India Company for the establishment of a factory in Surat – a decision that changed the history of the world (1999 Wild).

3.3.4 British India

The first IMFL (Indian Made Foreign Liquor) distillery in the country was established by Carew & Co. Ltd. in Cawnpore (Kanpur) in 1805, for the army's rum production.

Since alcoholic beverages were considered an excisable commodity, the British colonial administration (Achaya, 1998) issued a license to government distilleries only - the Sudder (district) still a system to restrict production. In an attempt to increase revenue, the government offered the highest bidder at auction the "Out Still" or "Still Out" government control. People who succeeded in setting up this Out Still could sell unlimited quantities of alcohol for one year.

The direct result of this system was an enormous increase in the number of distilleries. Consumption also increased significantly. Revenue growth was enormous. The excise revenue from drinking in 1873-74 was \$ 2,300,000. It grew to \$ 2,600,000 by 1878-79. After that, it continually increases every year.

3.4 Indian Beer Market

3.4.1 An Overview

India is Asia's third-largest beer consumer – the Pacific region by volume – but as individuals, Indians are lagging drinkers of amber fluid, which ranks among the top 30 beer markets in the world at the bottom of the barrel.

According to a Beeronomics 2013's report by UBS Global, the nation's 1.3 billion population consumed 20 million hectoliters of beer in 2012 – but that is only 1.6 liters per person compared to 37 liters in China, 31 liters in Thailand, and 30 liters in Vietnam. Low consumption per capita is due to factors such as affordability, poor availability, and strict rules.

Beer is currently targeted at the higher-middle and middle-income demographics in India. It is estimated that of the top 30 global beer markets, India has the lowest affordability of beer relative to the average GDP (gross domestic product).

India is the only BRIC country (Brazil, Russia, India, and China) where beer is more expensive than a Big Mac, based on market data. Also, beer is 7 to 8 percent more expensive than spirits on a unit/alcohol basis.

Compared to the average income of consumers, the cost of beer in India is much higher than all other emerging markets. On average, the purchase of 500ml of mainstream beer in India requires 54 minutes of work compared to the global average of 20 minutes and 9 minutes in China, based on Beeronomics 2013 findings.

Another problem is availability: There is one licensed outlet per 18,000 Indians, compared to one per 300 Chinese. (Flanders Investment & Trade, 2014)

Table 1: Top Beer Markets by Consumption

	Per capita consumption (in liters)		Volume in (in hectoliters)	% growth by 2016
	2012	2016		
China	37	44	502.5	5%
US	78	75	244.1	0.2%
Brazil	68	74	134.3	2.7%
Russia	67	71	95	1.1%
Germany	110	104	89.7	-1.7%
Mexico	59	63	67.3	2.8%
Japan	45	44	57.9	-1.4%
UK	70	65	44.5	-1.5%
Poland	100	104	37.8	0.7%
Spain	77	72	35.9	-1.3%
India	2	2.6	20	13.2%

Source: (Flanders Investment & Trade, 2014)

However, the Beeronomics report forecasts that consumption will increase by 2016 to 2.6 liters, an increase in the volume of 13%. Fifty-five percent of this industry volume will be driven by Tamil Nadu, Andhra Pradesh, Karnataka, and Maharashtra states. Indians under 30 years of age, overall economic growth, and lower taxes will drive growth. In April 2011, Karnataka raised the spirit tax while leaving the beer tax untouched - for the first time, different tax rates were applied to various alcoholic beverages.

The market growth for beer in India is, of course, very difficult to predict, as there is always uncertainty on the tax front. Growth in the beer market depends heavily on government policies in various states. Since price elasticity in the market is high, sales are immediately affected each time governments increase the beer tax. State governments tax liquor; therefore, the tax, especially excise duty, varies from state to state.

Since alcohol is one segment from which all state governments expect a significant portion of their tax revenue, the tax on alcohol in the annual budget is unfailingly increased and new tax structures are introduced during the year.

In addition to price restrictions, governments also control the market distribution of alcoholic beverages. The excise duty per liter of beer is the world's highest, and beer is taxed higher than spirits. Tax rates vary by state, ranging from a low 15% to a flat 70%. Moreover, a ban on alcohol advertising poses a challenge to premiumization and innovation.

As mentioned earlier, in the period 2018-2024, sales of beer volumes are projected to grow at a CAGR of 7.6%. The forecast growth in sales is expected to be more or less in line with the increase in sales over the review period, as companies continue to develop distribution and introduce variants such as flavored beer or mild beer. Imported beer is expected to increase steadily, as is craft beer, although both remain with a small proportion of the total volume of beer.

There are various types of alcoholic beverages and the concentration of ethanol differs across preparation. Alcohol in a beer is often measured as 'Alcohol by Volume,' abbreviated as "ABV."

(Flanders Investment & Trade, 2014)

3.4.2 Different Methods of Alcohol Preparation

3.4.2.1 Fermented beverages (9% – 16% ABV)

As the name suggests, fermented drinks are the type of alcohol that is prepared by fermentation. The sugar is converted to ethanol and carbon dioxide using yeasts during this process. Beer, Champagne, Wine are some examples of fermented beverages.

3.4.2.2 Fermented beverages (17% – 75% ABV)

Distilled drinks are also called spirits. This type of alcohol is produced by the distillation process, in which juice or other already fermented liquids are evaporated by boiling and then collected by condensation. This process creates a wide range of liquors such as Whisky, Brandy, Gin, Vodka, Tequila, Rum, etc.

3.4.2.3 Fortified beverages (up to 20% ABV)

Fortified beverages are fermented, distilled, and then "fortified" to increase their alcohol content by adding additional alcohol. This is done to balance the content of flavor and liquor. Fortified drinks include Port Wine, Madeira, Chamomile, etc.

3.4.2.4 Liqueurs or creams (15% – 30% ABV)

These are alcoholic drinks made of distilled spirits, then flavored with cream, spices, nuts, herbs, coffee, chocolate, etc. Examples are Coffee Liqueur from Sheridan, Irish Cream Liqueur from Baileys, Amarula Fruit Cream Liqueur, etc.

3.4.3 Types of Alcoholic Beverages

Table 2: Types of Alcoholic Beverages

Beverages	Source	Alcohol (%)	Leading brands
Brandy	Fruit juice	40-45	Honey Bee, McDowell
Whisky	Cereal, grains (Rye, Wheat, Maize)	40-45	Antiquity/Royal Challenge, Peter Scot, McDowell, Something Special, 100 Pipers, Officer's Choice, Bagpiper, Black Label, Signature, Red label, Passport, Royal Stag, Blender's Pride, Johnnie Walker, Old Smuggler, Black Dog, Black & White.
Rum	Molasses/sugarcane	40-45	Old Monk, Bagpiper, McDowell
Wine(port, sherry, champagne, etc)	Grape (also other fruit)	10-12	Bosca Red, Vincola, Pincola Wine, Sula, Golconda, Heritage
Beer	Cereals (Rye, Wheat, Maize, Rice)	4-8	Kingfisher, Haywards, Foster, Knock Out, king cobra
Vodka	Grain (Rye, wheat), potatoes or sugar beet molasses	40-45	Smirnoff, White Mischief, Romanov, Shark Tooth
Gin	Grain	40-45	Blue Riband, Our Choice

3.4.3.1 Whisky and non-beer drinks in India

Distilled spirits, mainly whisky, account for 57 percent of total consumption in the country. India is said to have become the world's largest global whisky market. On weekend nights, lines appear outside many Indian liquor stores, with an active seller of low-priced Indian whisky produced by the region. Nevertheless, pricier imported products have become popular as Indians grow richer. British whisky exports to India increased by 44 percent year-on-year to 56 million pounds (US\$ 72 million) for six months to June in 2018. The Indian consumer prefers Indian- malt whisky among the various types of whisky. It is expected that the segment will grow 15 percent annually.

Compared to Indian whisky, foreign brands find it increasingly difficult to penetrate the Indian market, despite significant growth in market size, mainly because of the 150 percent import duty, which removes imported brands from the reach of general consumers.

With the expected removal of existing trade barriers under the WTO exemption, competition from imported brands is expected to hot up in the next period. The Scotch Whisky Association (SWA), London, urged the Indian government to reduce the spirit duty rate to 70 percent. SWA also urged the British Government and the EC to challenge the Indian Government's import tariff on liquor.

Foreign liquor majors could penetrate the Indian whisky segment by less than 2 percent. Even after spending tons of money on the brand building, cheap whisky brands from domestic stables dominate the market with the bulk of the market share, and scotch brands were able to sell only 150,000 cases.

After a sharp increase in the cost of molasses, the alcohol raw material, the leading liquor companies raised their prices to protect their profit margins. Maharashtra prices increased by approximately Rs. 50 to Rs. 75 per case. In the first half of 2004, rates of molasses in Uttar Pradesh increased by nearly 200 percent; prices in other states increased by almost 100 percent.

In recent years, the availability of drinking alcohol has consistently declined in the country. Almost 50 percent of the molasses produced in Uttar Pradesh go to medicinal alcohol production. Gasol, which is a mixture of ethanol and petrol, is used in a significant portion.

Picture 1: Royal Stag



Alcohol: 42.8% in most countries

Ingredients: Scotch malts blended with grain spirits.

Fun Fact: There have only been seven master distillers at Jack Daniel's distillery throughout its history of 150+ years.

Image source: raymassey.com

The demand for cheap and medium-sized whisky with a brand such as Haywards grew at a phenomenal rate and regular brands such as Diplomat, Bagpiper, and Officers Choice experienced negative or negligible growth. The premium segment, which includes McDowell's No 1 and Royal Stag, has shown positive growth. A signature, however, recorded an incredibly high growth rate in the deluxe segment with brands such as Antiquity. Bottled in India, only 150,000 cases were sold to scotch brands such as Black Dog, Vat 69, Black and White (Rs. 800- 1450). Originally bottled scotches such as Johnnie Walker, Black Label, Chivas Regal were good. To compete with these brands, US-based Brown-Forman pushed its Jack Daniel whisky and aimed to grow by 150 percent over four years.

Picture 2: Jack Daniel's



Alcohol: 40%

Flavor: The taste is reminiscent of apple pie complemented with Tennessee Whiskey and seasonal spices, with a finish of toasted oak and vanilla.

Fun Fact: Along with paychecks on the first Friday of each month, employees have gifted a bottle of JD for a happy weekend.

Image source: (Rachel Arthur, 2015)

Liquor maker Radico Khaitan was aiming to achieve a 25 percent growth by 2020 over its net sales of Rs 11.73 billion in 2014. In the last three years, the company's net sales grew at CAGR of 24 percent. The company is targeting a 55 percent growth in the coming three years. The company was led by a sharper focus on brands such as Old Admiral, Contessa, and 8 pm.

The spirits division of the UB group, which includes McDowell's and Herbertsons, has axed up to 12 slow – moving liquor brands, including White Magic Vodka, 2-in-1 Lime, Centenary Whisky, Red Czar Vodka and Old Inn Whisky. Some of these brands survived their marketability. Others, who were axed, were replaced in the same category by new ones. The new additions include Derby Special, regular plus whisky. Shortly, the company plans to launch strong RTDs. The category of RTD is still emerging in India. In addition to Vodka Cruiser, McDowell may be able to supply other products from Independent's portfolio, such as Havana Gold (white rum and coconut liquor), Stinger (alcoholic soda), or Woodstock (a bourbon cold drink).

RTD drinks are in the beer, rum, and whisky segments, which include light cocktails with less than 5 percent alcohol content. In the Indian market, there are already a few foreign brands in the RTD segment: Bacardi Breezer and Jim Bim Cola.

Picture 3: Bacardi



Alcohol: 40% in the US and 37.5% in the UK.

Color: Water white, Gold.

Flavor: Candied/crystallized fruit, impressions of vanilla and apricot, sweet, creamy almond/marzipan flavors (almond croissant). Sweet fruity overtones.

Fun Fact: During the prohibition era, Cuba – where Bacardi was originally manufactured – was filled with Americans; only for this specific brand.

Image source: (POZNAN, PO, 2019)

To achieve a majority stake, Allied Domecq increased its shareholding to 74 percent in its Indian joint venture with Clan Morgan Distilleries. The company brought more brands like Beefeater, Ballantine's, and Souza Tequila. Allied Domecq with Jagatjit Industries had divided ways. The installed capacity of this distillery is 5,000 kilolitres.

The MNC Company, Bacardi-Martini India, a 74:26 joint venture between Mysore's Bacardi distilleries based in Bermuda and Gemini Distilleries, recently introduced some of the global brands. Bacardi Limon in the category of white spirit rum and Bacardi 8, Bacardi Solera, Bacardi Anejo, and Bacardi Select in the segment of brown spirit rum. The company introduced Bombay Sapphire in gin, Camino Real in Tequila, and the white label Dewars in Scotch whisky.

Bacardi was allowed to use the preferential route to bring additional capital of Rs 300 million. After a robust global marketing alliance, Bacardi joined hands with William Grant to co-market their products in India. Bacardi promoted the Indian market for brands of William Grant,

Glenfiddich, and Grants. Bacardi targeted a white-spirit market share of around 15 percent and a brown-spirit market share of 5 percent. The rum market is laced by tough competition between the Royal Challenge, McDowell, Signature, and Smirnoff Vodka.

Bacardi International recently replaced Whyte and Mackay in a 51:49 joint venture with Radico Khaitan and purchased three IMFL grain brands, Whyte Hall, Genesis, and Royal Peg, creating a dent in the whisky segment. For the production and marketing of rum and whisky brands, Bacardi will continue to have two separate entities. The new joint venture with Radico Khaitan will enable Bacardi to explore the IMFL market under its umbrella with Whyte and Mackay's and three whisky brands. Its 8 PM premium whisky is a top mover in its segment that has taken impressive shares.

Pernod Ricard, the world's fifth-largest producer of French spirits and wine, launched Tilbury, a whisky based on grain. The wholly-owned subsidiary of the British liquor major, Seagram India, produces scotch and premium whisky brands such as 100 Pipers, Blenders Pride, Imperial Blue, and Royal Stag. The company has two production facilities in India – Nasik, and Daurala. The operations of Seagram in India were to be under Pernod's control and the latter would manage and control the entire liquor business of Seagram here, thus transforming Pernod into a large liquor manufacturing and distribution company, which would expand its single brand, Tilbury's, in the market.

Picture 4: Blenders Pride



Alcohol: 42.8%

Color: Brown.

Flavor: Smooth and Smoky.

Fun With the ‘good taste stays with you,’

Fact: the brand is targeted at the contemporary, confident Indian and positioned on lifestyle.

Image source: (Khurram Haque, 2013)

United Distillers & Vintners (UDV) was the first company to launch its whisky Gilby's Green Label flexes packs. Enclosed in a green bottle and a rich label with gold trimmings, Gilby's Green Label flex packs were launched for a 180 ml pack at an introductory price of Rs 38. With its premium vodka, Smirnoff, UDV is looking to boost its 5 percent share in the white spirits market. The other two whisky brands – Johnnie Walker and J & B are imported and sold only in duty-free shops and hotels at the airport. Other niche brands such as Malibu, Archer, Baileys are not hot on the priority list of UDVs. UDV tries to create strategic alliances with websites. It is linked to Rediff.com, which connects to the UDV website, to educate people about the different brands.

Picture 5: Johnnie Walker



Alcohol: 40%

Color: From red to black, to green and then

gold.

Flavor: Fruity, spicy, smoky, and also show hints of vanilla.

Fun The founder of this brand, John

Fact: Walker, remained a teetotaler all his life.

Image source: turbosquid.com

Shaw Wallace offers a desi version of the two-liter mega bottle called Royal Challenge Premium whisky. In India, two liters of spirit were packed in one bottle for the first time. India's regular bottles are 750 ml or one liter. Abroad packaging varies widely from 4.5 liters to bottles of 1.12 liters. There are also miniature bottles with 200 ml and 50 ml.

Shaw Wallace claimed a market share of 70 percent in the premium whisky category with a sale of nearly 800,000 Royal Challenge cases a year. United Breweries wanted to buy one of the three brands and an open offer was made before the Calcutta High Court.

Officer's Choice whisky, owned by BDA, a Herbertsons subsidiary, is now the country's second-largest selling brand after McDowell No 1. BDA plans to make the umbrella brand Officer's Choice.

White spirits, Gin, Rum and Vodka, make up approximately 9 percent of the market. Among the Gin brands (70 percent of the segment), Blue Riband variants account for almost 40 percent of the market, followed by Carew's with a share of nearly 14 percent. Others are Forbes, Aristocrat, High Society, and Sapphire No.1 from McDowell.

Romanov, Smirnoff, and White Mischief dominate the vodka market with about a fourth of white spirits, the three represent approximately 55 percent of the market. Mcazen, Red Riband, Aristocrat, and Highball are other prominent brands. Bacardi white rum is very active in the white spirit rum segment with a market share of 4 percent. With its' Premium Romanov Vodka, Herbertsons enters the white spirits market.

Picture 6: Old Monk



Alcohol: 42.8%

Color: Dark Brown.

Flavor: Vanilla.

Fun Fact: Old Monk was once the third largest selling rum in the world. And it's never been officially advertised even once.

Image source: topalkohol.cz

Companies such as Pernod Ricard, Bacardi, and Mohan Meakins are developing new strategies through new brands and smaller packages in the Indian rum industry (size 12 million cases). Groupe Pernod Ricard has positioned an international quality at an affordable price, Santiago, its dark Cuban rum. Santiago has been launched in smaller pint (375 ml) and nip (180 ml) sizes to penetrate the market more deeply. Bacardi Reserva's dark rum and Carta Blanca's white rum are premium brands. To enter the white rum segment, Mohan Meakins is extending its winning brand, Old Monk. Old Monk, one of the country's oldest rum brands, sells approximately six million cases. Celebration rum from McDowell sells about two million cases. Radico Khaitan has repackaged his rum brand Contessa. Currently available in two variants – Contessa Select and Contessa Rum, the defense market is mainly targeted. The company sells in the defense market about 1.5 million cases. The brand is also extended to the public market.

The average wine consumption per capita is 4.6 million, slightly less than the medicinal syringe content per person. Ten years ago, there was no wine market. But it could rise to as much as 7 million over the next two years. Domestic cheap wines represent 150,000 cases per year, local wines of international standard (produced by Sula, Grover) comprise 160,000 cases, wines imported in large quantities and bottled here constitute 15,000 cases and imported wines comprise 50,000 cases.

Annually, wines grew at 22 percent. India's potential for wine sales is considered very large. The super-premium segment with retail wines for Rs 550 / 650 accounts for 12,500 cases of premium wines (price Rs 300 / 450), which is a market for 50,000 cases. Since 1997, the wine market has shown a healthy upswing with an annual growth of about 30 percent. Image controls 75 percent of the market, while Sula Vineyards and Grover Vineyards share the balance. Chateau Indage presents a white wine, Rhine Pride. It is expected that approximately 50,000 Rhine Pride bottles will be sold in one year. This is the result of a joint venture between Chateau Indage and Bernkastel's German partners, Peter Meters. It is a two-way joint venture: The bulk bottling of Indian wine produced by Indage will be sold in Germany under the brand name Angoori and Rhine Pride will be bottled and sold in India by Chateau.

Picture 7: McDowell's No. 1



Alcohol: 42.8%

Color: Yellow gold.

Flavor: Smooth blend with a pleasant aroma and light taste.

Fun Fact: The world's largest umbrella spirit brand is McDowell's No. 1 with three different products - Whisky, Rum and Brandy.

Image source: awards.brandingforum.org

The UB group now seeks to position McDowell strongly in the wine market. In the wine market, it has a presence through its alliance with the Italian winemaker Bosca. The \$100 million Sogrape groups, the owner of Mateus Rose -the world's largest branded wine with annual sales of more than one million cases, is holding talks with the United Breweries Group for a possible tie-up.

Rampur Distilleries was planning to introduce imported wines to India. The company announced an exclusive distribution link with Ernest & Gallo and planned to import ten popular wine brands from the foreign company, including Carlo Rossi, Turning Leaf, Wine Cellars, and Gallo from Sonoma Country.

In anticipation of the lifting of quantitative restrictions from April 2001, Moet-Hennessy, the makers of Champagnes and Cognacs, established a subsidiary in India. A subsidiary is an arm called Moet-Hennessy India. The famous Dom Perignon and others such as Moet and Chandon, Mercier and Ruinart are his champagnes. Hennessy is one of the major Cognac brands. The market share of Moet Hennessey is 30 percent of the champagne market in the region.

The wine specialist, Astoria of Italy, planned to enter India and introduce seven wine variants, including table and sparkling wines, such as Fragound Rosso, Cold Lemon Wine, and Blanco.

3.4.3.2 Beer in India

Some 36 units in India are currently producing beer with an estimated output of 670 million liters. The beer market in India was approximately 65 million cases of 12 bottles each and was expected to reach 90 million cases in 2007-08. India ranks 29th in terms of consumption, with annual consumption increasing by 8 percent a year. The consumption of beer per capita is as low as around four liters compared to 128 liters in Germany, 129 liters in New Zealand, and 116 liters in Denmark. Even China consumes 20 liters per capita.

The Indian beer industry has moved to a strong segment of beer. The ratio of mild beer in 1993-94 has shifted from 66:34 to 45:55. The main brands in the segment of mild beer are Kingfisher, Golden Eagle, and Royal Challenge. Haywards 5000, Haywards 2000, Knockout, Khajuraho dominate the strong beer segments. United Breweries has the lion's share in the standard segment of more than 55 million cases.

Knockout, Bengal Premium, Pals Premium, and Seven Stars are the major brands of Mysore Breweries. In Aurangabad and Bangalore, it has two breweries with a total capacity of 450,000 hl. In Andhra Pradesh, the fastest-growing beer market, Mysore Breweries was setting up its third brewery. Heineken NV's Mysore Breweries and Singapore-based subsidiary Asia-Pacific Breweries, which produces the popular Tiger brand, are exploring the chances of establishing a joint venture. Heineken NV, based in the Netherlands, is the second-largest international brewing group in the world, producing more than 110 breweries in 50 countries. Heineken's three international brands are the most popular, Heineken, Amstel, and Murphy. Its regional brands include the biggest regional brands in Asia, Cruzcampo, "33" Export, Moretti, Zywiec, and Tiger. The brand portfolio includes more than 80 brands in total.

Global majors, US Stroh Brewing Co, and Germany's Henninger Brau AG have launched their products. Others such as Australia's Fosters Brewing Group, South African Breweries have either established subsidiaries or entered into tie-ups.

Haake-Beck entered India via a technical link between Germany's Brauerei Beck and the Indian Him Neel Breweries via a 0.15 million hectoliter plant in Himachal Pradesh (at an investment of Rs 550 million). Haake Beck is sold in non-returnable, lightweight glass bottles of 650 ml and 330 ml, an innovation in which recycled bottles are the norm.

The market is enjoyed by two UB beer brands, Kingfisher and Kalyani Black Label. Kingfisher alone controls the market by 18 percent. There is also a significant market presence in Shaw Wallace, Mohan Meakin, and Mysore Breweries.

The United Breweries Group acquired a 65 percent stake in the London Pilsner beer manufacturers Associated Breweries & Distilleries (ABD) in Mumbai. UB has protected the western Indian market from South African Breweries (SAB) with this acquisition, which has already felt its presence in northern India by taking over the brewery of Narang Industry in UP. Its brands are London Diet, Maharaja Premium, and San Miguel, in addition to London Pilsner. These beer brands are manufactured by ABD at its Thane brewery. United Breweries is expanding its Nacharam brewery's capacity to 220,000 hl in Andhra Pradesh. By increasing its stake from 31 percent to more than 51 percent, it has also acquired majority control over beer production Inertia. The move was to help UB significantly increase its market share. Also, UB has agreed to acquire 75% of Mangalore Breweries via its wholly-owned subsidiary, United Breweries (Holdings).

United Breweries has already decided to divest a strategic investor that could include Belgian Interbrew, Carlsberg, or Heineken with a stake of 26 percent. The company owns or contracts 22 of the country's 57 operating breweries, representing approximately half of the total capacity. The Danish-based Carlsberg Breweries decided to bring two of their brands, Carlsberg and Tuborg, to India. Bengal Premium, a lager beer, was launched. However, canisters, which account for negligible volumes, may come earlier than later. Shaw Wallace is launching beer in cans for the Royal Challenge. UB Kingfisher beer is already available in cans.

The launch of premium lager beer by the Australian Beer Company Foster in India aims to increase sales by 15 percent. Amberro was recently launched in India by the company. Foster India has shown interest in the introduction of other international brands such as Crown Lager, Foster's Ice, Subzero, Carlton Cold, and Victoria Bitter. In Aurangabad, Foster's set up a brewery.

In the strong beer and premium beer segments, Shaw Wallace has a 40 percent presence, with Haywards 5000 and Haywards 2000 being the market leaders in their respective segments. Under the brand name Kohinoor, it plans to launch its beer on the US market. In 1993, SWC launched its beer, Lal Toofan, in the UK. The brand has enjoyed significant success and has since been extended to other markets such as France. The company has a bag of beer brands including the Royal Challenge. Bottle brands Shaw Wallace – Haywards 5000, Haywards 2000, and Royal Challenge. The production capacity of Rainbow Breweries is 600,000 cases per year. The company expects to increase its regional presence from one million to one-and-a-half million cases.

With the merger of three breweries – Sica Breweries, Skol Breweries, and Haryana Breweries, Shaw Wallace undertook a restructuring exercise. Shaw Wallace was to be divided into three separate companies under the plan: One holds all the assets of the breweries, the other all the distilleries, and the main holding company owns the brands. There are currently eight breweries in Shaw Wallace. The company merged with Shaw Wallace Distilleries with 14 distilleries.

Shaw Wallace joined a strategic alliance with Nepal's Singha Brewery to further extend Haywards' reach. Haywards produces super-strong beer and Hi-Five mild beer at Singha Brewery. In the first year itself, SWC planned to capture 10 percent of the Nepal market. Shaw Wallace asked for permission to set up four breweries on greenfield. It also planned to expand some of its existing breweries, such as the Charminar Brewery in Andhra Pradesh, from 2.56 million to 5.77 million cases per year.

Given the emerging growth opportunities in the sector, Interbrew, the second largest brewery in the world, planned to enter the country. It was scouting for a partner and was in negotiations for collaboration and marketing alliance with various majors of the brewery, such as Mysore Breweries, a regional player in Karnataka that owns the strong beer brand Knockout. Interbrew brands include Stella Artois, Jupiler, Labatt Blue, and Rolling Rock and amber-red beers (Vieux-Temps, Ginder Ale), abbey beers (Leffe), white beers (Hoegaarden), and fruit beers (Bellevue).

The Miller Brewing Company, the third-largest beer producer in the world, planned to invest more than \$150 million as a joint venture partner with Mohan Meakins. There were five breweries in the plan.

With a subsidiary, LowenBrau Buttenheim India, LowenBrau Buttenheim entered the Indian market with local promoters. LowenBrau now has tough competition from well-known players like UB's Kingfisher, San Miguel, Sandpiper, and Foster's Australian beer major.

3.4.3.3 Different beer styles

Before you walk into the beer section of a liquor store or sidle to a bar, you'd better know what you're looking for. The options are dizzying, and if you don't know the difference between a pale ale and a lager, there's a good chance that you're going to go out with something you don't want to drink (or pull a Scott Walker and settle for a commercial beer if there are much better options).

Although you might think "beer is a beer," that's not true at all. There are tons of characteristics that distinguish one type of beer from another, so it's a good idea to understand the qualities you like and don't like in each style before you waste another dollar on a beer you don't like. (Julia Herz, 2020)

Picture 8: India Pale Ale



Image source: craftbeer.com

ABV: 4.5-6%

Color: Usually amber and cloudy, but now available in darker and lighter colors too.

Flavor A strong hoppy flavor, with a slightly (or : extremely) bitter taste.

Fun Fact: When English troops lived in India in the 1700s, most Englishmen drank the typical pale ale brew before the ship reached the Indian shores. Brewers added more hops to prolong the shelf life of the beer. And this is how the hoppiest style of beer was born.

Picture 9: Pale Ale



ABV: 4-7%

Color: Pale gold to amber.

Flavor: A strong flavor of malt and wood in the UK. During brewing, hops in the US are ramped up, making it a hoppy beer (but not as hoppy as an IPA).

Fun Fact: They have been brewed since 1642 when coke was first used as a roast malt fuel. Coke is a fuel made from coal that has few impurities.

Image source: (Vorel, 2018)

Picture 10: Pilsner



Image source: (Best beer Hq, 2014)

ABV: Usually 5%

Color: The light golden color and a notable clarity.

Flavor: Strong hops (but not as strong as IPAs), softer malt, scented and pleasantly bitter flavors.

Fun Fact: Pilsner is one of the world's youngest styles of beer, first brewed in 1842.

Picture 11: Wheat Beer



ABV: 3-7%

Color: Usually hazy because of the wheat protein used to brew them.

Flavor: Generally, light in flavor, low in hops and has a yeasty flavor that makes it great summer beers.

Fun Fact: Whether it's a Hefeweizen, Berliner

Fact: Weisse, or a Belgian Wheat Beer – one thing that unifies several types of wheat beers is their making from wheat malt and barley malt.

Image source: storey.com

Picture 12: Brown Ale



ABV: 4-8%

Color: Dark, dark amber.

Flavor: A high level of malt making it more earthy and less bitter. Flavors vary from sweet, to slightly hoppy, to earthy and malty.

Fun It's a very old beer from the early

Fact: 1700s.

Image source: (Noel, 2019)

Picture 13: Porter



ABV: 4-7.5%

Color: Very dark, almost opaque.

Flavor: Mild with notes of grilled grains, toffee, and chocolate.

Fun Being taken over by stouts, Porters had

Fact: nearly gone out of style, until Anchor Brewing Company brought it back in the 1970s when it started brewing again.

Image source: eu.usatoday.com

Picture 14: Stouts



ABV: 4-7%

Color: Very, very dark with a head that is usually tan to brown.

Flavor: Heavily roasted flavor with hints of coffee, chocolate, liquorice and molasses.

Fun Fact: Throughout history, porters and stouts were interchangeable. But as porters became weaker in consequence of the World Wars, people began to refer to strong porters as stouts. So this style of beer was born.

Image source: heinekenmalaysia.com

Picture 15: Sour Beers



ABV: 4-10%

Color: Varies greatly depending on the sour style and the fruit with which it may be brewed.

Flavor: Acidic, tart, or sour. Sometimes fruity if brewed with fruit.

Fun Fact: Wild bacteria and yeast are how they get their sour flavor. (Julia Herz, 2020)

Image source: beertourism.com

3.5 Factors Restricting Growth of Beer in India

The Indian beer industry has the following problems:

3.5.1 High taxation

Alcohol is the responsibility of India's state governments, and more than 25 percent of state revenue (even up to 40 percent in a few states) comes from alcohol duties. It is the second-largest generator of revenue after sales tax/VAT for most states. Alcohol is a key source of incremental income generation for many cash-strapped states.

All this is true of many of the world's emerging economies, but what is significantly different in India is that beer (4-7% alcohol) is taxed at the same rate as other spirits with more than 40% alcohol, meaning beer drinkers have less value for money. Therefore, beer in India is much more expensive than in other comparable countries that inhibit category growth. Excise increases in some states are extremely steep, and even if the increase is passed on to consumers, volumes that can even last for a couple of years are adversely affected. On the other hand, if companies do not pass on the increase in excise duty, they will be left with an EBITDA margin hit. (Motilala Oswal, 2016)

Let's take an example of how customs import duty on international brands.

Note: this is just an example to grasp the concept simply.

HS Code: 2203

Product name: Beer

CIF Value of the Product: 100 (Hypothetical value)

Table 3: How Customs Impart Duty on International Brands

VALUE AND DUTY DESCRIPTION	CUSTOM DUTY RATES	CALCULATED AMOUNT	FORMULA
Assessable Value (AV)		101	CIF Value + Landing Charges (at 1 % of CIF Value)
Basic Duty of Customs (%)	100%	101	$(AV \times BD \text{ rate}) / 100$
Basic Duty Pref (%)	0%	0	$(AV \times BD \text{ Pref rate}) / 100$
Additional Duty of Customs (CVD) (Including Cess, if any) (%)	0%	0	$(AV + BD. \text{ Amt.}) \times CVD \text{ rate} / 100$
Central Excise	0%	0	$(CVD \text{ Amt.}) \times \text{Central}$
Education Cess (%)			$\text{Excise Edu. Cess Rate} / 100$
Customs Education Cess (if any) (%)	0%	0	$(BD \text{ Amt.} + CVD \text{ Amt.} + \text{Edu. Cess. Amt.}) \times \text{Custom Edu. Cess Rate} / 100$
Special Additional Duty of Customs (Spl. CVD) (if any) (%)	0%	0	$(AV + BD \text{ Amt.} + CVD \text{ Amt.} + \text{Edu. Cess. Amt.} + \text{Custom Edu. Cess Amt.}) \times \text{Spl. CVD Rate} / 100$
Total Customs Duty		1	$BD \text{ Amt.} + CVD \text{ Amt.} + \text{Edu. Cess Amt.} + \text{Custom Edu. Cess Amt.} + \text{Spl. CVD Amt.}$
Landed Price of the Product		202	State taxes and excise duties will be added to the landed price upon arrival in India

(Indian Import Duty 2203000: Customs Duty On Beer Made from malt, 2020)

All goods (HS Code: 2203) put in bottles or boxes or any other packaging for ultimate retail sale at a CIF price:

Not exceeding \$25 per case: 75% ad valorem tax.

Exceeding \$25 but not exceeding \$40 per case: 50 % ad valorem tax or \$37 per case whichever is higher.

Exceeding \$40 per case: 20% ad valorem or \$40 per case whichever is higher.

The rationale behind increasing alcohol taxation as a policy measure is relatively simple -it will reduce alcohol consumption per capita and the incidence of problems by making beverage alcohol more expensive. The public health perspective, which does not necessarily focus on economic efficiency or corporate profitability, sees the reduction of alcohol consumption as a means of preventing a range of social and health problems and reducing the burden on society associated with alcohol. Given this, many governments are implementing a range of measures to limit the physical availability and economic accessibility of alcohol. Taxation is used to limit alcohol demand by increasing costs and making it less accessible to consumers. Because of this, many governments are implementing a range of measures to limit the physical availability and economic accessibility of alcohol. Taxation is used to limit alcohol demand by increasing costs and making it less accessible to consumers. Public health researchers are particularly interested in such a population-level strategy when reductions in alcohol consumption per capita can also be shown to reduce the effects of alcohol, both chronic problems (e.g. liver cirrhosis) and acute problems (e.g. violence and injury).

Excise taxes are indirect taxes on the sale or use of particular products or transactions. The tax is often passed on to individuals and organizations who buy certain products or services. A tax based on the presence of alcohol in a product is a tax on excise duty; other examples of excise duty on products include tobacco, energy (oil and gas taxes), and waste (tanks). In contrast to value-added taxes and sales taxes, the excise tax is usually not based on the value of the product to be taxed, but rather a fixed-rate tax or a specific tax expressed as a monetary amount per quantity of the product, not value.

3.5.2 Government control oversupply, distribution, and pricing

A country with a population of 1.3 billion has meager 90,000 outlets serving beer. This is much lower per capita than other emerging markets. India has one beer outlet for 20,000 people, while China has one outlet for 200. In 70 percent of the country, the government decides on product pricing, and price increases are not granted annually to account for inflation in commodity costs, but once in a couple of years. Until then, the manufacturer must absorb the cost increase. Government agencies are often the largest and mostly the only suppliers of alcoholic beverages in many states and therefore decide what to purchase and how much to purchase (in some cases even against what the consumer wants). In the last 10 years, there are signs of small changes. The only additional retail licenses allocated during this period by the Maharashtra state government were shops selling only beer and wine. Last year, the Kerala government imposed a ban on spirits outside five-star hotels but avoided such restrictions on beer and wine. The government of Karnataka has launched campaigns against binge drinking that affects more spirits.

Each of India's 29 states is a unique and distinct market. A company can show excellent growth in some regions at the same time but does not sell in the neighborhood. The situation can change dramatically after a year for the better or worse. Nearly all the sharp fluctuations in regional market dynamics are due to administrative reasons.

Indian brewers' main problem is a lack of price control, as state governments can regulate it at many stages. In addition to the common agreement on maximum permissible retail prices (MRP) for consumer goods, there is excise duty, special VAT on alcoholic beverages, various licenses, etc. Brewers sometimes have to conduct exhausting negotiations with the state government to protect the profitability of sales, accept the game rules, or boycott them, which is very dangerous and can lead to market loss.

Moreover, India's alcohol market regulation has a pronounced dualism. The Constitution expressly states the aspiration to ban drinks and drugs intoxicating. However, excise tax revenue is vital for many regions, and a complete ban would likely lead to a shadow market transition, an increase in the production of artisan alcohol, and mass poisoning.

This dualism is usually solved in such a way-consumption can be restricted by constant tax increases and retail prices. And the state government controls sales to prevent taxes from flowing away and make it easier to negotiate with producers. Therefore, more than two-thirds of beer sales in India come from state companies. State-owned companies sell alcohol in the states of Andhra Pradesh, Tamil Nadu, Kerala, Odisha, and others, controlling the entire sales chain or part thereof. It is possible to select a state with a comfortable operating environment for the company and to conduct trade from there, but it is uneconomic because of the restrictions on the free movement of alcoholic products. On one side of the state border export, and the other side, the import is charged fees high enough to avoid the outflow of taxes, jobs, etc. Moreover, the transport of beer over long distances in India is unprofitable due to high fuel costs and state regulation of alcohol transport.

For these reasons, the company claiming national coverage must have its production if not in each country, at least in the largest markets. Like SABMiller India, limited coverage threatens sales volatility. On the other hand, a broad network of private and contract facilities provided good sales dynamics for United Breweries.

Each state's government has a variety of regulatory methods that were the causes of declines in regional markets. Some examples are as per the below:

3.5.2.1 Odisha

A couple of years back, a sharp decline was observed in beer shipments to Odisha. That's because the brewers did not agree with the proposal of Odisha State Beverages Corporation (OSBC), the state's only wholesale distributor, to reduce the selling price by 20 percent, thus increasing their margins. Five brewing companies that control 70 percent of the state market

– United Breweries, SABMiller India, Carlsberg India, and Fortune Spirit Limited had not signed a contract with the state company for the fiscal year 2015-16, stating that they will not operate at a loss. They suspended shipments and appealed to Odisha's High Court for a fair price.

The court helped the brewers and the state-owned company adopts a provisional agreement until the trial, which allowed deliveries to be unblocked. The brewers may lose 3.5 percent of national sales falling on Odisha's beer market and the state government may forget the budget inflow. Therefore, the final agreement is very likely to be reached.

3.5.2.2 Maharashtra

The uneven dynamics of the Maharashtra beer market reflect the government's tax policy. Once beer drinkers became accustomed to a certain price level, excise duties increased sharply. As a result, rapid retail price growth in 2011-12 and 2013-14 led to market declines. The beer market in Maharashtra is now near stagnation, and the state's beer prices are among India's highest. Another factor was the steady increase in retail license fees for alcohol and HoReCa.

Of course, the high cost of beer is somewhat offset by high living standards and is very liberal for the regulation of India's market. Also, increased sales of premium grades are setting off the slowdown in physical quantities. It can be assumed that a moderate increase in excise duty in the current fiscal year can lead to market growth.

3.5.2.3 Punjab

The 28 percent drop in beer sales in Punjab in 2013-14 is fully explained by the doubling of excise duty from 25 to 50 rupees per liter. The excise on strong spirits also increased slightly, further exacerbating the position of beer as an alcoholic drink.

3.5.2.4 Delhi

Delhi's tax policy—a separate administrative unit in India—has a significant impact on the sale of beer and alcohol sales structure. As retail prices rose in 2010-11 and 2011-12, consumers switched to stronger drinks—especially sales of Scotch and wine, according to the excise department's report. Sales growth in the following two years can be attributed to low price growth and a decline of 3.6 percent in 2014-15 is linked to a 21 percent increase in beer prices.

3.5.2.5 Andhra Pradesh and Telangana

In 2009-10 there was an event in India's largest beer market – the states of Andhra Pradesh and Telangana – that profoundly influenced the brewer's position and led to a slowdown in the growth dynamics of the entire market. Andhra Pradesh Beverage Corporation (APBCL), the only official alcohol distributor, decided to change its purchasing policy. This decision continued the conflict that took place a year earlier between the APBCL and the two leading companies.

By 2008-09, Andhra Pradesh had a situation in which the United Breweries and SABMiller India brands accounted for 95 percent of the market. Beer supplies were blocked for 38 days in the peak season, as brewers demanded a more appropriate purchase price for their products. The indignation of the brewer was caused by the fact that purchase prices have risen by 9 percent since 1997, while retail prices and production costs have increased several times. Sales of beer fell by 14.5 percent at the end of the financial year, which had a negative impact on the state budget, but a price agreement was reached.

In 2009-10, APBCL decided to reduce the market leaders' share to 75 percent to destroy the existing duopoly due to the increase in sales of small businesses. The alignment had to be carried out following the average data on companies' shares in other countries. The SABMiller India company has therefore lost its leading position in the region, giving way to United Breweries.

The brewers had a new problem in 2013-14 – Andhra Pradesh and Telangana states were divided into two separate administrative units. There were two breweries left in Andhra Pradesh state and six in Telangana. Following the separation, the States have limited the mutual trade in beer and introduced an export and import duty.

In 2014-15, the states' brewers again expressed dissatisfaction with low purchase and retail prices due to rising production costs. Due to the high tax burden, the price of beer in India is indeed one of the lowest. The price increase did not offset the decline in the market, which continues in 2015-16.

However, the decision to allow the sale of beer in malls and hypermarkets can also increase volumes. Conditions for the development of craft breweries are also planned. Besides, the government decided to join the trading process directly -of 4 380 retail outlets selling alcohol, the state administration now owns 10 percent.

3.5.2.6 Tamil Nadu

Tamil Nadu had a complete ban on the sale of alcohol produced in other regions until recently. Only Tamil Nadu State Marketing Corporation Ltd (Tasmac) sells drinks within the state, private companies have no access to the market.

Profit from alcohol retail sales provides the state budget with huge revenue, but the government sought maximum benefit by constantly increasing prices. At the same time, within four years of 2013-2014, there was a ban on the export/import of beer from other regions of India and a ban on the filling of tin to increase the turnover of returnable packaging.

To some extent, the ban on foreign supplies has affected -there are now 7 breweries in the state, with a capacity of 5.9 million hectoliters. But these powers are redundant, as the companies were half loaded even in 2012-13 when beer sales peaked. The government was accused in the press of lobbying certain producers' interests when the consumer was hard-sold, not popular and affordable brands, but little known and expensive brands.

The market's closed nature, inadequate supplier selection policy, and manually controlled to a significant drop in sales in 2013-14, and the government decided to make some changes. The purpose of lifting the beer import/export ban was to load idle plants.

However, in 2014-15, beer sales (and production) in the state continued to fall to 1.96 million hectoliters, which is not surprising, as prices increased by 53 percent to 177 rupees per liter over four years, with an average growth in India of 32 percent to 155 rupees.

The high cost of beer and administrative constraints has led to stronger liquor drinking by consumers. The share of beer in the structure of alcohol production decreased from 33 percent to 27.6 percent in terms of liters from 2012-13 to 2014-15 (the production and consumption of alcohol in Tamil Nadu is very close). Consumption of IMFL rose inversely.

Note that the state government wants to get out of the "spin" of income compensation at the expense of the consumer wallet, because, as far as we know, price growth in 2015-16 was twice as slow as the national average. If this stops the prolonged recession, the state of Tamil Nadu, one of the largest markets, will stimulate the dynamics of the beer market as a whole.

3.5.2.7 Kerala

Among many other southern states, Kerala stands out due to its high population income and active political life. In 2014, different parties and Christian and Muslim religious organizations united on the idea of reducing alcohol consumption, which is above India's average in Kerala.

The state company Kerala State Beverages Corporation Ltd (BEVCO) fully controls the wholesale and retail sales of alcoholic beverages in Kerala. It was agreed that the number of government outlets, which was 338 across the state, would be reduced by 10 percent each year. At the same time, the private sector suffered more, i.e. 300 HoReCa plants lost their alcohol trade licenses in 2014-15. The exception was made only for costly restaurants in five-star hotels so that the tourism business was not undermined.

However, in the area of price regulation, the pressure on brewery sales has also increased. In anticipation of the likely decline in excise tax revenue, the state government increased the excise duty on beer from 50 to 70 percent of the selling price, and on IMFL-from 115 to 135 percent, while the maximum retail price, according to the BEVCO circulars, remained at the level of previous years. Maybe that was the reason for the beer shortage and the search for suppliers. Furthermore, the logical consequence of the increase in the price of beer and the restriction of alcohol availability was that consumers switched to IMFL.

The consequences of the measures taken were the growing queues at the remaining outlets and an 11 percent drop in beer sales by the end of 2014-15.

3.5.3 Registering a brand with the canteen store department

Nearly 15 percent of liquor sales are in the canteen departments (CSD) of the military. A process that takes nearly nine months to sell brands through CSD outlets requires prior registration. CSD outlets also have strict quality, supply chain, and distribution charge policies. If a company cannot register a brand with the CSD, a large number of consumers would not be able to attract it. CSD is essential to drive growth in southern India, which accounts for 59 percent of India's liquor consumption.

3.5.4 Import duties on transfers between states

Foreign brands of alcohol and liquor attract high custom duties on exports to India. Companies must pay excise duty to sell liquor across states in addition to customs duties. Lower excise duty is attracted by liquor produced and sold in a state. The higher liquor excise duty from other states leads to a higher price, leading to a lower take-off. Also, these 'imports' are only permitted through a quota system that limits the quantity imported. As a result, almost all liquor manufacturers in every state are forced to set up distilleries. Higher government taxes also lead to higher prices.

3.5.4.1 Distribution is a key barrier

Liquor distribution varies by state. The government acts as a distributor and markets it through its own shops in some states, such as Tamil Nadu, Kerala, and Delhi. Distribution is semi-controlled by state governments in Uttar Pradesh, Andhra Pradesh, and Karnataka. Governments act as distributors and there is no control over the retail sector. Distribution is free in other states, such as Maharashtra and Goa, as with other consumer companies such as Britannia Industries (biscuits), Colgate Palmolive India (toothpaste), or HUL (soaps). The sale of liquor in their territories has been banned by four state governments (Gujarat, Nagaland, Manipur, and Mizoram).

3.5.4.2 Price hikes cannot be done more than once a year

State governments determine liquor prices once a year. Liquor companies can change prices once a year, but they are not allowed to change prices during the year, regardless of changes in the price of raw materials. The sector also faces gradual taxation, which dissuades price increases because it attracts higher taxes. In India, 70 percent of liquor consumption is accounted for by states in which the government controls the distribution networks. As a result, liquor companies' price power is weak. Unlike other consumer companies, liquor companies do not have the advantage of

adjusting product prices based on prices for raw materials, media inflation, new launches, likely launches, and competitive pressure.

Also, the offering of freebies or the management of trade margins and discounts cannot cover mispricing in the case of the liquor company's products. A few companies overcome the problem of the price increase by using a premiumization strategy to pass volatile molasses and glass prices, thereby improving performance. Since consumers are upgrading from country liquor to Indian foreign liquor and from regular to premium alcohol, brands with premiumization strategies will continue to be good.

3.5.4.3 Ban on advertising

In contrast to other consumer products, alcohol advertising is not allowed in the media. This limits product awareness and new launches. Alcoholic beverage companies must use surrogate advertising, hoarding at alcohol sales outlets, and sponsoring sports/music events, but the impact of the ban on direct advertising affects growth.

Disproportionately high duties mean that beer in India is nearly twice as expensive as a comparable country such as China, but that still does not explain the fact that India's per capita consumption is more than 2.6 liters, much lower than the global average.

Even if all the negative factors affecting growth are taken into account, India's per capita consumption of beer is still abysmally low compared to global peers, and therefore there is an enormous opportunity to grow due to demographic, economic growth factors, and rapidly increasing social acceptance.

3.6 Beer packaging

The glass bottle (the proportion of aluminum cans on the market is not large) is one of the bottlenecks for Indian brewers. Despite the current glass container rotation system, the rapid growth in beer production has led to a shortage of glass bottles and created the conditions for its rapid price growth. The return of branded bottles, which the brewers began to use en masse in 2013, posed additional problems. Today, therefore, the cost of a new bottle is three times that of a reused one. As the bottle manufacturers' capacity increased and the amount of reusable branded packaging increased, the price increase on the bottle slowed down, according to the companies' reports. The share of beer packaging on raw materials at the expense of brewers has gradually decreased.

The glass for beer packaging is only produced by a few companies among a dozen leading manufacturers of amber glass and containers. The largest-Hindustan National Glass, which produces 4,800 tons of glass products a day. The company controls more than half of the supply of beer glass bottles with 7 production facilities. AGI Glaspac (Andhra Pradesh), which controls about a third of the market, is the second manufacturer in capacity (1600 tons per day) and sales. Closes the top three Piramal Glass (Gujarat) with a daily capacity of 860 tons.

3.7 GST Impact

In 2017, liquor has been kept outside the goods and services tax (GST), since it requires a constitutional amendment to cover the new tax regime. Despite this, its implementation is expected to increase the cost of beer. Because:

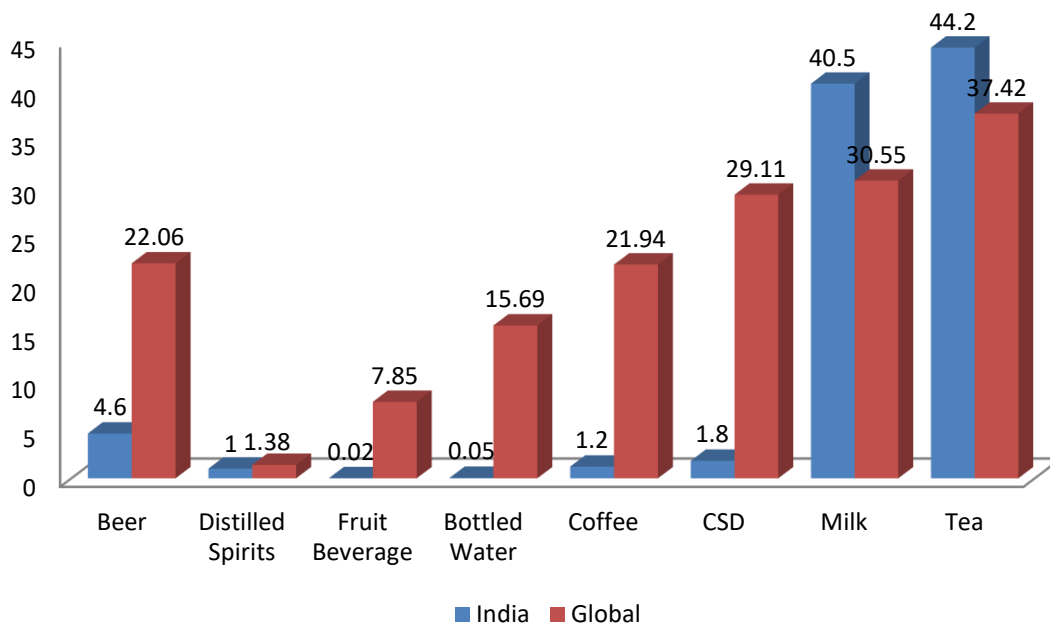
- a) Breweries input materials currently attract excise duty, sales tax, VAT between 12% and 15%, while GST is 18%.
- b) 75% of its requirement for glass bottles is from used bottles. New bottles cost INR 10 per bottle and INR 3 per bottle. Under the common VAT system, since a used bottle is not a manufactured product, beer companies do not pay excise duty and only pay service tax of 0-6 percent. Even used bottles can attract full GST rates under GST.

If the international scenario is examined, one will instantly catch that beer is perceived as a common man's drink.

3.7.1 International scenario – Beer, a common man’s drink

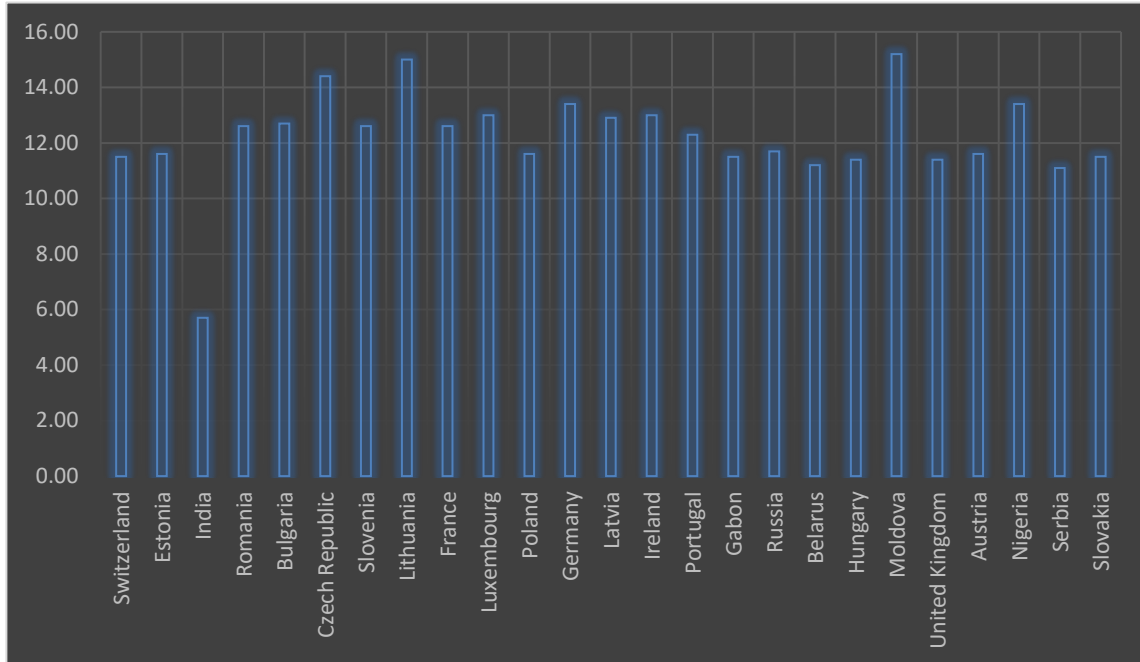
Over the world, beer has been identified that the focus of policy should not be so much on control of consumption as on reducing harm. Therefore, in most countries, beer and wine dominate the alcohol market. It is regarded as a common drink and is even priced in parity with soft drinks in many countries. In India, however, things are different.

Figure 12: Per Capita Consumption of Beverages (liters/ per annum)



Although India has improved significantly at least in the past five years in terms of beer consumption, the per capita consumption of beer in India is yet 4.6 liter per person which is one of the lowest in Asia or just ahead of a couple of countries in the world.

Figure 13: Beer consumed in pure alcohol (Litres/Capita)



Source: (WHO Health Observatory Europe, 2020)

3.7.2 Solutions for Growth

Hence, below are some of the solutions to move forward to meet the need of the hour.

3.7.2.1 Uniform policy and taxation

The industry would benefit from a uniform tax regime on liquor/beer. If implemented, the beer industry would benefit by rationalizing end consumer prices and making them uniform in all states, as in the case of other consumer goods.

Ministry of Food Processing Industries, of the Government of India, outlined the need to base duties on alcoholic beverages on alcohol content in its draft excise policy. Globally, the uniform taxation policy has been a success due to its inherent revenue implications. In addition to economic contributions, a uniform tax structure will also create greater agri-connections that are inherently beneficial to a country such as India.

3.7.2.2 Free pricing

Let consumer prices be determined by manufacturers based on market forces and not by government policy. The government is currently controlling distribution and/or pricing in most of the country's states. There is a delay between the increase in the cost of commodities and the state's eventual authorization to increase prices. These periods of delay can extend to many years. Free pricing can make beer companies much more flexible and competitive for changes in the commodity price environment.

3.7.2.3 Preferential beer treatment

The government has put 96 percent of alcohol consumption in spirits with an average volume of 34 percent. This is bad (in terms of) social effects inherently. Therefore, other milder forms of alcohol such as beer must be given greater preferential treatment.

It is important to realize that the beer sector can make an enormous contribution to the agricultural sector, as it is an agro-based product. In particular, marginal barley farmers will benefit from the beer sector's growth. Besides, the beer industry's income and job multiplier are also extremely high. Experience in other countries has shown that 28-30 jobs are created upstream and downstream for each person employed in a brewery.

3.7.2.4 Lower consumer prices

A steady growth in the beer market, aided by lower retail prices, would not only make the industry more profitable, but a much larger consumer base would lead to a dramatic increase in state revenue. "Beer Only Off shops" should open outlets for which license fees should be significantly lower.

3.7.2.5 A more open market

In a country of more than a billion people, there are currently only about 55,000 outlets nationally. Regulatory barriers are very straightforward for the industry. A more open market would create uniform pricing and reduce the impact of cross - border alcohol smuggling.

3.7.2.6 Adapt better beer selling practices

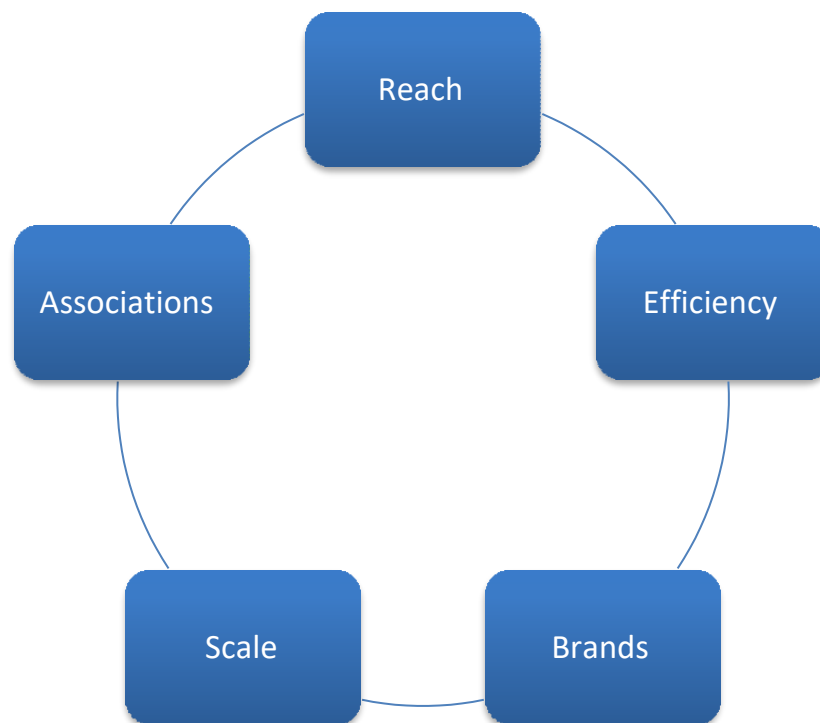
It is necessary to create a better retail environment and promote the development of sales forces. It is necessary to establish good practices in the sale of beer and to develop value-added structures such as better promotions at the point of sale. As the challenges and solutions for how a beer industry can grow in India have just been covered in the above pages, I am presenting here a case study of how and why United Breweries successfully dominates the Indian beer market for years.

4. Practical Part

4.1 United Breweries: A Case Study

Below are the five competitive advantages which United Breweries enjoy over its competitors:

Figure 14: Competitive Advantages which UBL enjoy



Source: Various sources like industry reports, books, colloquial communications, articles, etc.

4.1.1 Reach

Brewery presence nationwide

United Breweries Ltd. (UBL) is the only company with a national presence and most of its new breweries are established in under-penetrated states of India. The presence of multiple breweries nationwide in many states allows it to:

- a) Profitable supply of beer, as it is not economical to send out from one state to another given high inter-state transfer duties.
- b) Ensure that growth opportunities are taken advantage of in all states. Whenever a state is witnessing sharp growth, especially in low-penetrated northern and eastern regions, UBL is well placed to take advantage of its presence in these states.
- c) The fact that there are several breweries throughout the state also ensures consistent supply during crucial periods. For example, in Aurangabad, Maharashtra, water cuts were announced during the summer season (which is the peak period for beer consumption in India). UBL, SABMiller, and Carlsberg all have Aurangabad breweries, but UBL was the only company in the same state with an additional facility in Talaja. Thus, even if operations in one region of the state are affected, UBL can provide its other breweries economically, unlike peers who have to import from other states and therefore incur higher freight costs and import duties. UB is the only brewer in both Andhra Pradesh and the recently demerged province of Telangana.

Table 4: United Breweries has a much broader presence throughout the country

Companies	Own Breweries	Contract Breweries
United Breweries	Andhra Pradesh- Srikakulam	Uttar Pradesh- Aligarh
	Telangana- Mallepally and Kothlapur	Rajasthan- Alwar
	Tamil Nadu- Kuthambakkam and Aranvoyal	Daman and Diu- Daman
	Goa- Ponda	Assam- Gauhati
	Punjab- Ludhiana	Madhya Pradesh- Indore
	West Bengal Kalyani	Sikkim- Rangpo
	Kerala- Cherthala and Palakkad	J&K- Samba
	Rajasthan- Chopanki and Shahjahanpur	Meghalaya – Shillong
	Karnataka- Mangalore, Nelmangala, and Mysore	
	Maharashtra- Taloja, and Aurangabad (2 units)	
	Odisha- Khurda	
	Bihar- Naubatpur	
	Haryana-Dharuhera	
SAB Miller	Karnataka- Bangalore	Chattisgarh
	Telangana- Medak	Daman
	Haryana- Sonapat	Orissa
	Maharashtra- Aurangabad (2 units)	Punjab
	Uttar Pradesh- Meerut	
	Rajasthan- Neemrana	
	Kerala- Chalakudy	
	Orissa- Cuttack	
	Puducherry union territory	
Carlsberg	Bihar- Patna	
	Haryana- Dharuhera	
	Rajasthan- Alwar	
	Maharashtra- Aurangabad	
	West Bengal- Kolkata	
	Telangana- Hyderabad	
	Himachal Pradesh- Paonta Sabib	
	Karnataka (under construction)	

Source: (Motilala Oswal, 2016)

4.1.2 Efficiency

4.1.2.1 Cold chain and infrastructure

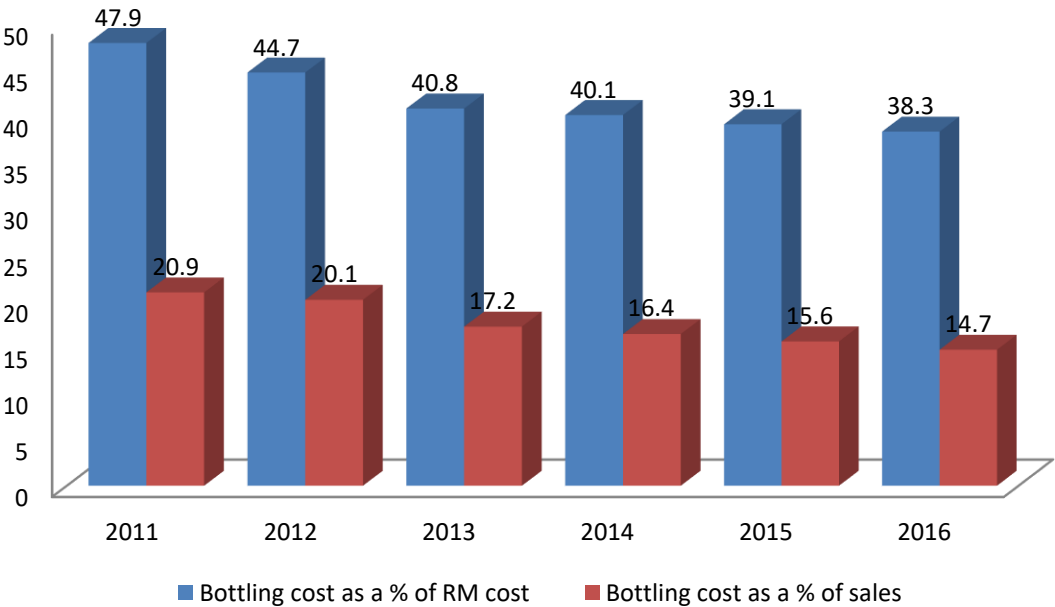
Beer is a perishable commodity and must be chilled, unlike spirits. UBL's investments in integrated infrastructure for the cold chain were ahead of peers. The GPS-enabled trucks also ensure that their own bottles are returned. In addition to the fact that UBBL owns or contracts breweries in all key states, its beer is fresher than its peers and supply are timely.

4.1.2.2 Used bottle collection

Glass accounts for India's highest material costs for beer companies, as beer is still consumed largely in bottles. The cost of bottling amounted to 47.9 percent of materials consumed and 20.9 percent of FY11 sales. UBL has since pioneered the collection system for used bottles. The ability to reuse/recycle used bottles is especially important because the cost of new bottles can be as high as 3 times that of used bottles. The company is competing with other beer players for used bottles. Glass traders could demand a significantly higher rate, especially during the key summer season, which the company had to fork out as the lack of demand was even more costly. So UBL struggled to get its own bottles back. Since the company was by far the largest player and only UBL and SABMiller induced new bottles into the system, they ended up subsidizing others, as it was still cheaper for other players to buy a UB bottle at a premium from a trader than to buy a new bottle.

The company, therefore, worked on two things. It patented the bottle itself with an additional embossment to distinguish each UBL beer bottle and return to the company. The company has also worked successfully to make the glass thinner and yet to ensure both quality and safety of the content. We estimate that the new induction of the bottle has dropped from more than 25 percent to around 15 percent now. Subsequently, the company was able to save significantly on the bottling cost component over the last five years, which fell from 47.9 percent of material costs / 20.9 percent of sales in FY11 to 38.3 percent of material costs / 14.7 percent of sales in FY16, leading to a significant improvement in gross margins.

Figure 15: Substantially reduced cost of bottles



Source: (Motilala Oswal, 2016)

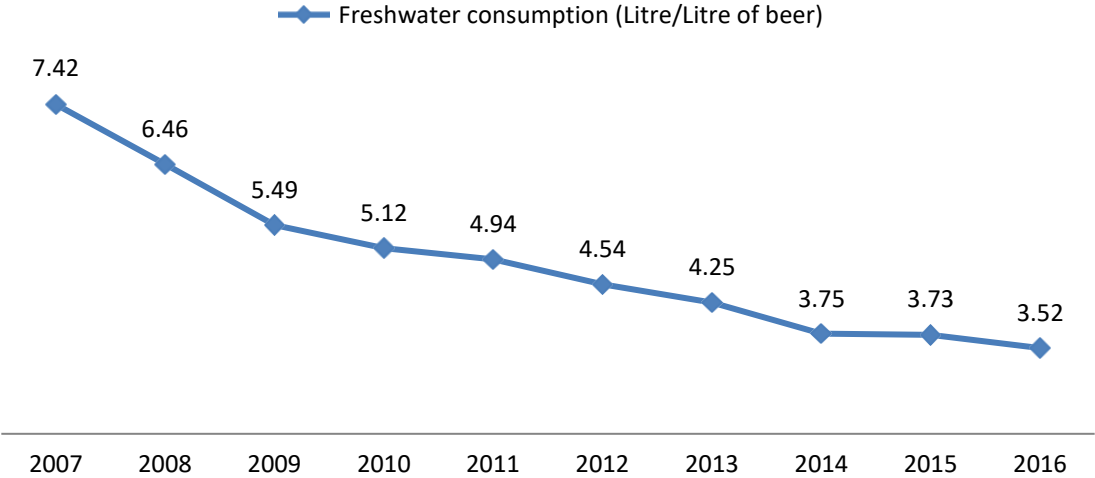
Fuel is a large part of the cost of glass production, and the decline in crude prices would have helped to reduce the cost of production and the price of bottles.

4.1.2.3 Reduction in water utilization

Water is a key ingredient in the beer production process. The summer season is the key demand period for beer, and water shortages can harm supply and market share during this season. All companies pay for water use for commercial purposes. The use of water was an area of significant improvement for UBL, which offers advantages over peers in terms of costs and sustainability. The current consumption of water is 4.52 liters per liter of beer, with a consumption of 3.52 liters

of freshwater (significantly reduced from 7.42 liters in 2007). In terms of the use of freshwater for recycled beer bottles, UBL is now among the best in Asia and the world at this level. Some of its breweries are even much better at 2.4 liters than the 4-liter global average. Moreover, the proportion of recharged water is also increasing, as 11 of its 21 breweries are already harvesting rainwater. The proportion of recharged water in freshwater increased to 17 percent in FY16 from 12 percent in FY15 to 38 percent by the end of FY17, and UBL is aiming to be a water-positive organization by 2025. (Motilala Oswal, 2016)

Figure 16: Progress towards minimum water usage



Source: (Motilala Oswal, 2016)

4.1.3 Brands

Potential launches in the portfolio of Heineken

UBL has a market share of 51 percent in beer, of which the iconic Kingfisher brand accounts for about 80 percent of its market share with its variants. Kingfisher retains its dominant market leadership despite the advent of global beer brands. In terms of market share, Kingfisher is nearly 3x the next biggest brand. In the strong beer and mild beer segments in India, it is the dominant leader. In 2014, the World Consulting and Research Corporation listed Kingfisher as one of the 100 most valuable brands for its credibility and consumers. In 2015, Kingfisher was one of the WPP and Milward Brown Survey's top 50 most valuable Indian brands. Other strong regional brands such as London Pilsner, Sandpiper, Bullet, UB Export, and Kalyani are also in the company. It has only launched the eponymous Heineken brand from the Heineken portfolio to date. Heineken

is the world's biggest beer brand. Many other major brands, including Amstel and Tecate, can be launched from the huge parent portfolio.

Figure 17: Heineken Brand Portfolio



4.1.3.1 Distribution

UBL is the only beer company that has brands in all the country's 90,000 beer outlets. Although we have no data on the distribution reach of SABMiller, we know from news clips that Carlsberg, the country's third-largest brewer, only reaches 40,000 outlets, less than half the national footprint of UBL.

4.1.4 Scale

Breweries in India cannot achieve global economies of scale due to a seasonal consumption element and the need for breweries in each state. However, in many states, opportunities are massive, and in other states, use could be increased as demand rapidly improves. Also, breweries with 1 million hectoliters of capacity tend to be far more efficient than smaller breweries in terms of economies of scale. UBL has the highest number of breweries reaching this scale, which significantly increases the profitability and return ratios compared to India's peers.

4.1.4.1 Raw material sourcing

International commodity volatility has in the past been a bugbear for the company, resulting in a fluctuation in gross margin. However, UBL has significantly reduced its reliance on imports of barley and other packaging materials over the past decade. For example, in FY16, the company worked on approximately 30,000 acres and established relationships with approximately 7,000 barley farmers. (Motilala Oswal, 2016)

4.1.5 Associations

4.1.5.1 Partnership with key events

Beer companies must attract and retain youth demographics. In addition to food and fashion, the association of Kingfisher with sports and music events is a great way to address this demographic. Historically, UBL has had strong connections to major sporting events in India. It is associated with the Indian Premier League T-20 Cricket, is the title sponsor of the East Bengal Football Team, is associated with Formula 1 racing, and is the title sponsor of the Indian Derby race. UBL has been linked to the web series 'TVF Pitchers' on the internet. Recently, the company extended this relationship with the launch of the "Pitchers Aggregator App," which provides up - to - date information on nightlife options in Bangalore and could later be extended to other cities. Within a week of launch, the app saw 60,000 downloads.

Heineken's association with the UEFA Champions League Football tournament is also important because European football has become extremely popular in the Indian youth segment in the last decade. Heineken is also globally associated with the James Bond film franchise and worldwide music events. Kingfisher is also linked to Sunburn in India, the country's largest EDM music festival. The 'Kingfisher Calendar' is also an important feature in India's annual fashion circuit, and annual supermodel hunting is also associated with Kingfisher. Kingfisher is also associated with restaurants, bars, pubs, nightclubs, and star hotels for a long time.

With the principles with which I analyzed United Breweries, looks like the beer market in India will follow the below-mentioned assumptions

(Motilala Oswal, 2016)

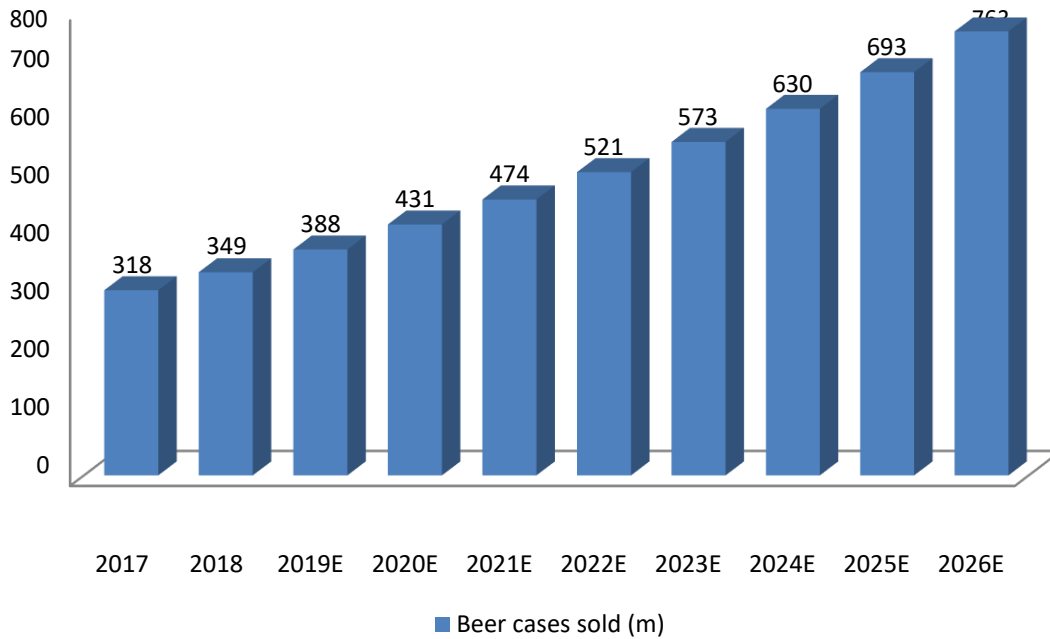
4.2 Assumptions

4.2.1 The rate of volume growth of the past decade is likely to continue

Beer may never reach consumption levels achieved by spirits if the excise regime remains similar – despite lower units of alcohol in beer, it gets taxed at the same rate and hence higher per unit of alcohol. Nevertheless, it can continue its growth momentum of the past 10 years. If any of the key states relax the regime in favor of beer owing to its lower alcohol content (as is the case with the rest of the world), it would be a huge bonus. However, that cannot be the base case here.

Given the extremely low consumption base, demographics, and social/economic factors that contribute to growth, there is no reason why the industry cannot achieve a volume of CAGR of around 10 percent in the next 10 years. Moreover, it's also noticeable that despite many burdens, the beer market has grown continuously.

Figure 18: India's beer market should be able to match its earlier pace

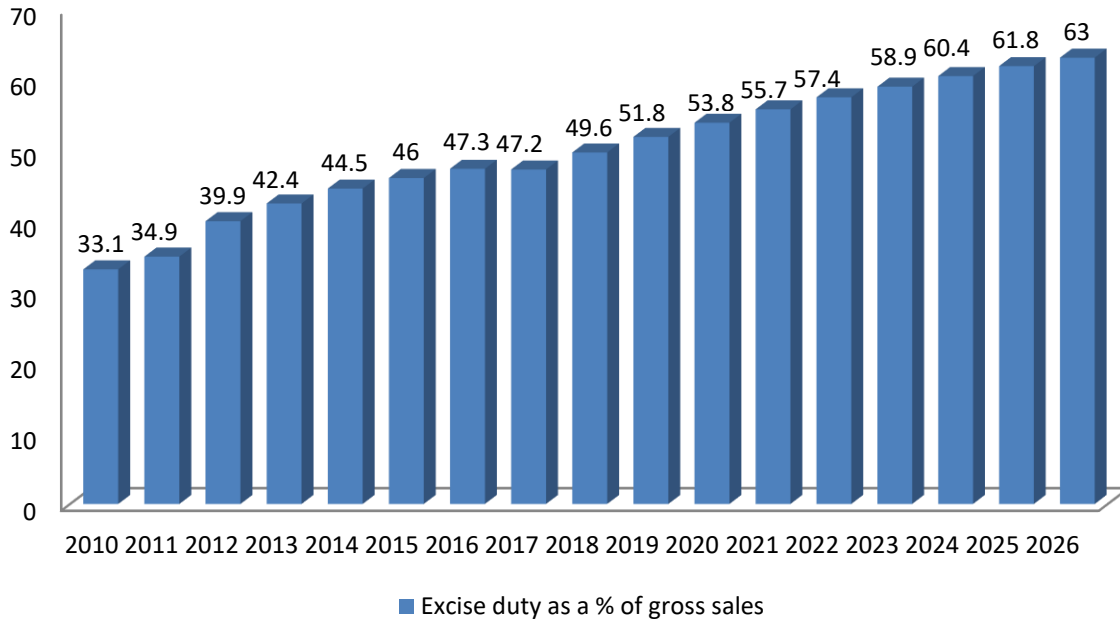


Source: (Motilala Oswal, 2016)

4.2.2 Excise duty continue to achieve heights

The government's need to tax alcoholic beverages at much higher rates reduces as it can generate revenue from other sources. However, based on the consistent increment on excise in the last ten years push experts and companies to assume that there will be a consistent increase in excise rates, as state governments may not adopt a more liberal approach.

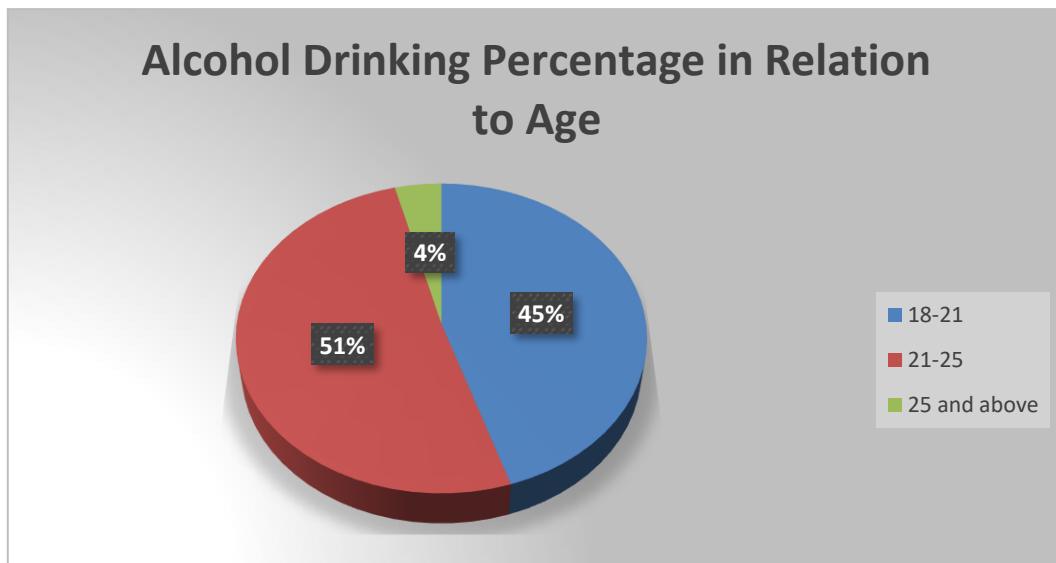
Figure 19: Continual rise in excise duty and its estimations



Source: (Motilala Oswal, 2016)

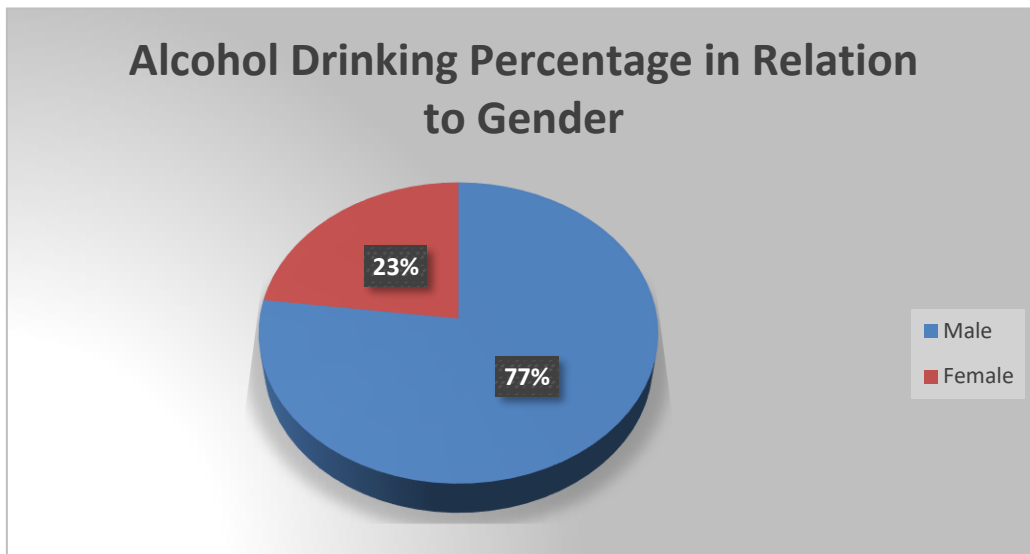
Figure 20: Alcohol drinking percentage concerning age

Apart from these assumptions, the following charts strongly support the growth of the beer market in India.



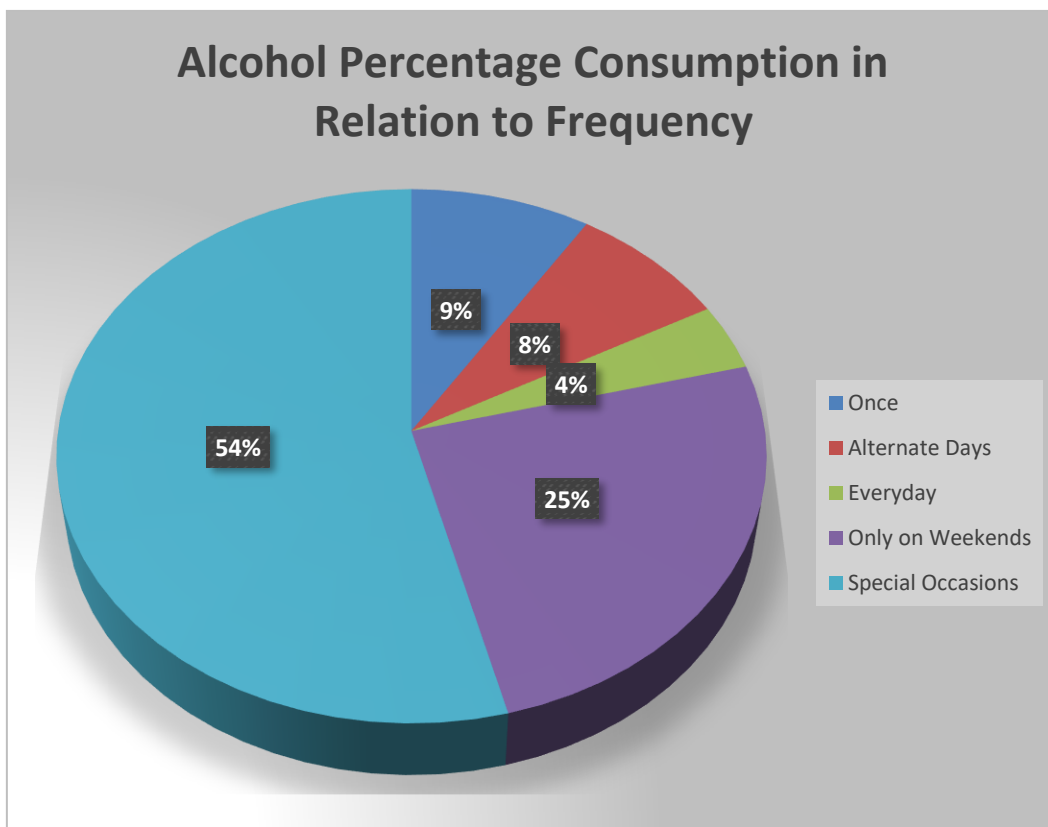
(This Chart prepared by using a survey through Social Media)

Figure 21: Alcohol drinking % about gender



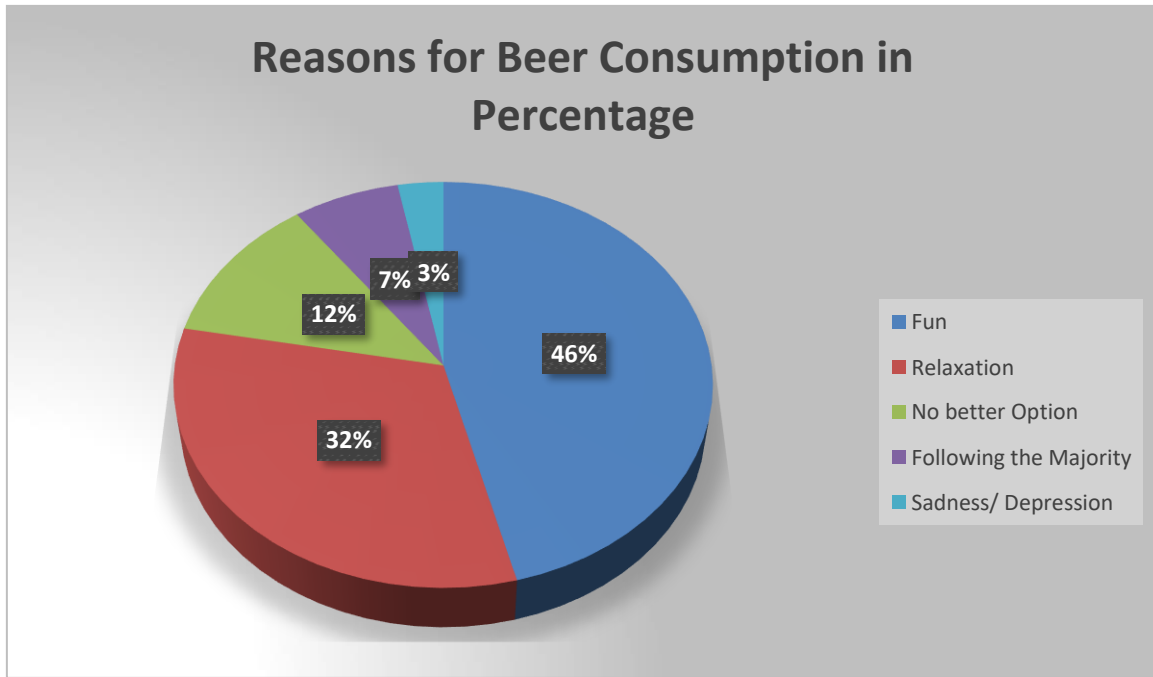
(This Chart prepared by using a survey through Social Media)

Figure 22: Alcohol % consumption with frequency



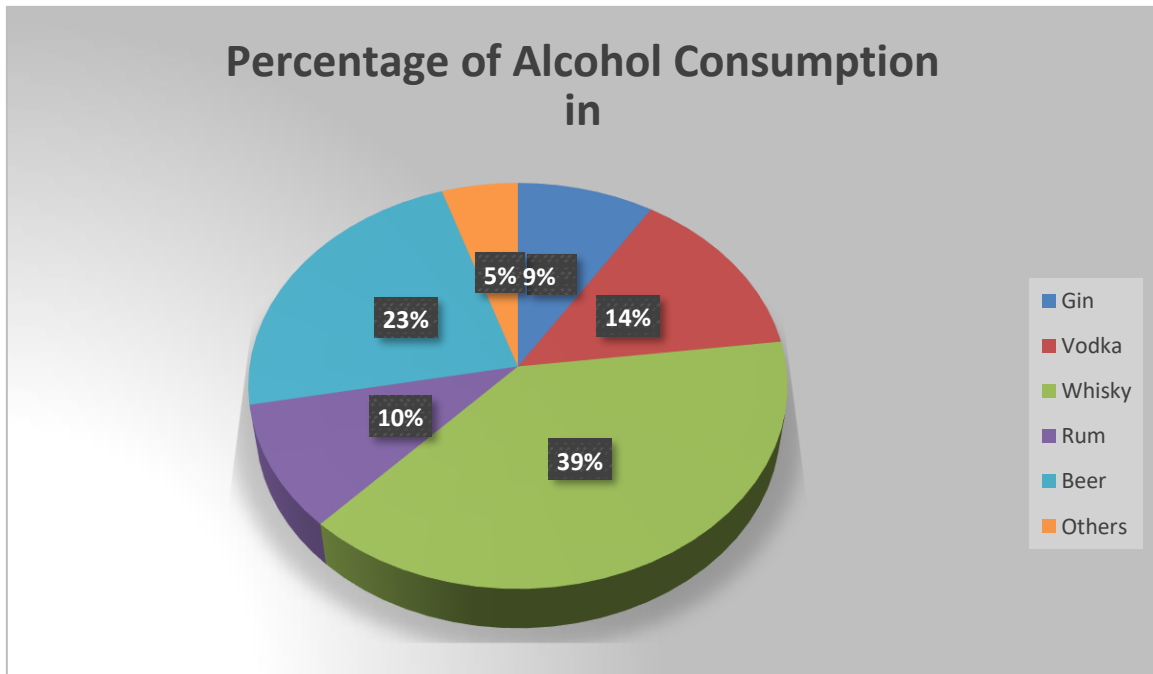
This chart based on talking to people and reading the article on the internet and books)

Figure 23: Reason for beer consumption %



(This Chart prepared by using a survey through Social Media)

Figure 24: % of alcohol consumption with brands



(This Chart prepared by using a survey through Social Media)

Figure 25: Regression of income by age

	A	B	C	D	E	F	G	H	I
1	SUMMARY OUTPUT								
2									
3	<i>Regression Statistics</i>								
4	Multiple R	0.777343026							
5	R Square	0.60426218							
6	Adjusted R Square	0.596017642							
7	Standard Error	4681.773852							
8	Observations	50							
9									
10	ANOVA								
11		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
12	Regression	1	1606497143	1606497143	73.29242545	0.00			
13	Residual	48	1052112307	21919006.4					
14	Total	49	2658609450						
15									
16		<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
17	Intercept	-29261.22101	6614.411486	-4.423858581	0.00	-42560.38664	-15962.05537	-42560.38664	-15962.05537
18	Age	1978.308322	231.0811025	8.561099547	0.00	1513.688625	2442.928018	1513.688625	2442.928018

We have calculated regression based on 50 observational data and found 60% R2 which explains a much better model.

It is a good fit as P-value & Significance-F is Zero based on income calculated by age of people.

Figure 26: Regression of how much they spent on drinks

	A	B	C	D	E	F	G	H	I	J
1	SUMMARY OUTPUT									
2										
3	<i>Regression Statistics</i>									
4	Multiple R	0.495422346								
5	R Square	0.245443301								
6	Adjusted R Square	0.229723369								
7	Standard Error	2.540219946								
8	Observations	50								
9										
10	ANOVA									
11		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>				
12	Regression	1	100.749566	100.749566	15.61350981	0.000254156				
13	Residual	48	309.730434	6.452717374						
14	Total	49	410.48							
15										
16		<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>	
17	Intercept	25.00280259	0.950495412	26.30502186	3.64666E-30	23.09170348	26.9139017	23.09170348	26.9139017	
18	HOW MUCH THEY LIKE TO SPENT	0.003566356	0.000902557	3.951393401	0.000254156	0.001751645	0.005381068	0.001751645	0.005381068	
19										
20										

We have calculated regression based on 50 observational data and found 25% R2 which explains a very bad model which can be justified as Indian residents don't actively spend on alcoholic drinks. Also, there are few states which prohibit alcoholic drinks.

It is a good fit as P-value & Significance-F is Zero based on money spent on alcoholic drinks.

Figure 27: Regression of gender by age

	A	B	C	D	E	F	G	H	I
1	SUMMARY OUTPUT								
2									
3	<i>Regression Statistics</i>								
4	Multiple R	0.474430648							
5	R Square	0.22508444							
6	Adjusted R Square	0.025100916							
7	Standard Error	7088.633688							
8	Observations	50							
9									
10	ANOVA								
11		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
12	Regression	10	598411619.7	59841161.97	1.488623813	0.180532115			
13	Residual	41	2060197830	50248727.57					
14	Total	51	2658609450						
15									
16		<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
17	Intercept	19431.60854	5607.180958	3.465486256	0.001254689	8107.67687	30755.54022	8107.67687	30755.54022
18	Male	417.3565826	6015.370946	0.069381687	0.945023101	-11730.9315	12565.64466	-11730.9315	12565.64466
19	Female	3318.391456	2513.188117	1.320391193	0.070872249	-1757.094913	8393.877826	-1757.094913	8393.877826

We have calculated regression based on 50 observational data and found 22.5% R² which can be justified as a male-dominated country that actively spends on alcoholic drinks and females don't comparatively spend as much.

It is a good fit as P-value is 0.95 for Male & 0.07 for females and Significance-F is 0.18 based on alcoholic drinks drunk by males & females on their income criteria. We can also interpret that male spends more money on drinks regardless of their income criteria.

5. Results and Discussion

Why India is set for Strong Growth in Beer Consumption

5.1 Favorable demographic trends, urban middle-class emergence

More than half of the 1.2 billion people in the country are under the age of 30. Aspiring to improve their living standards, this young population is expected to drive the growth of the country's food and beverage consumption sector.

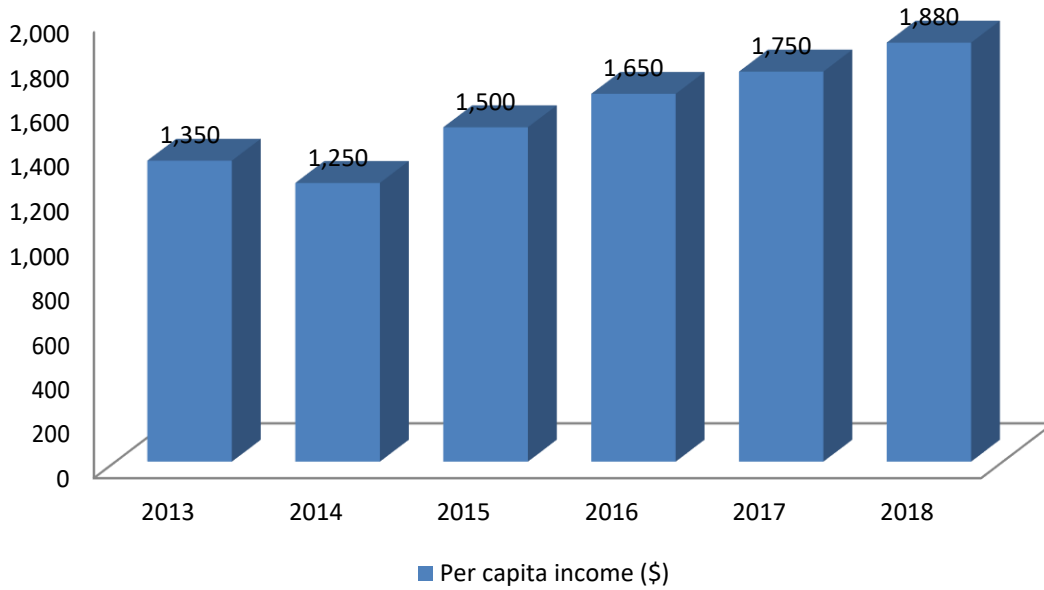
India's population of the middle class is expected to increase three times the current level in the next decade. Almost 40 percent of the population would live in urban areas.

In the next decade, India's economy is expected to triple. The resulting increase in income would lead to an increase in customers in the middle class. The share of this middle class (strivers and seekers) is expected to increase from 14% in 2008 to 46% in 2030, as described below:

5.2 Increased disposable income, the emergence of nuclear families with double income

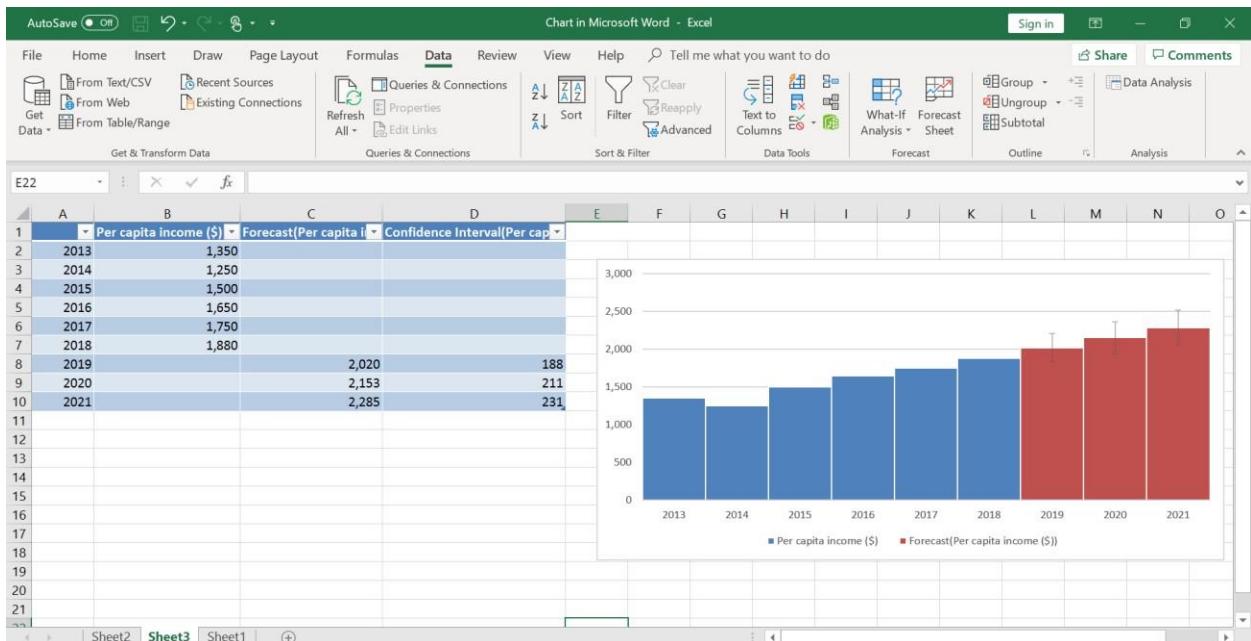
Increased disposable incomes of middle-class families led to more food spending. The income per capita increased by 9% to US\$1,350 in 2013 compared to US\$450 in 2000. One of the other key reasons for higher average monthly household income was the increase in the number of working women, which currently accounts for around 25 percent of the workforce.

Figure 28: Rising per capital income of India



Source: IBEF Food processing industry - June 2014

Figure 29: Forecasting Rising per capital income



As indicated in the above chart, the Indian food processing industry estimated that India's per capita income will reach US\$ 1,880 a CAGR of 7 percent by 2018. Consumers do not hesitate to

spend more on eating out with higher disposable incomes. With approximately 50 percent of the population under the age of 30, an increasing number of Indians can earn and have increased disposable incomes, which increase the demand for specialty and food products with added value.

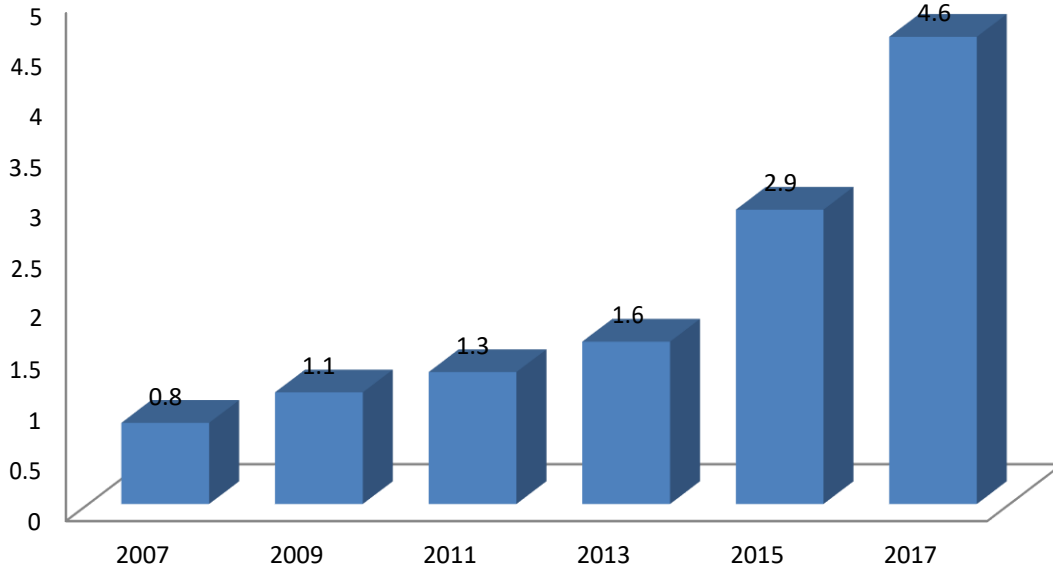
Due to the positive outlook for the country's strong economic growth prospects on the back of a change in the central government, household incomes are expected to increase further in India.

5.3 Rising beer consumption

In 2013, the Indian population consumed approximately 20 million hectoliters of beer, resulting in 1.6 liters of consumption per person. The consumption of beer per capita increased to a CAGR of approximately 9 percent in the period 2008-2012, and the consumption of beer increased from 170 million cases in 2008 to 256 million cases in 2013, resulting in a CAGR of 11 percent. The export of Indian beer amounted to Rs. 383.1 million in 2008 and increased to Rs. 1777.8 million in 2013, showing a robust CAGR of 36 percent, while imports recorded a CAGR of 19 percent in the same period and in 2013 amounted to INR 281.6 million.

It is expected that favorable demographics, coupled with the increasing focus of foreign brewers on the range of products and the increasing social acceptance of alcohol, will enable the demand for beer to grow rapidly in the coming years. We estimate that the beer industry is growing 12 percent y-o-y and that by 2017E it will reach 452 million cases. The 12 percent growth rate is a conservative estimate; the industry has all the triggers to exceed the projected growth rate.

Figure 30: Increasing per capita beer consumption

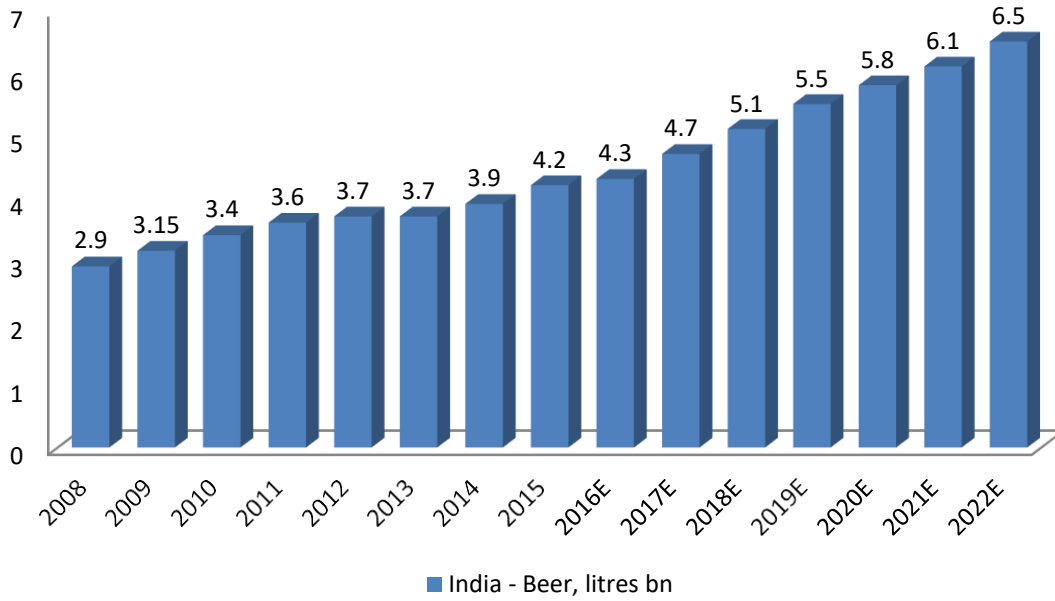


Source: Canadean (2012)

5.4 Beer sales growth in volume and value

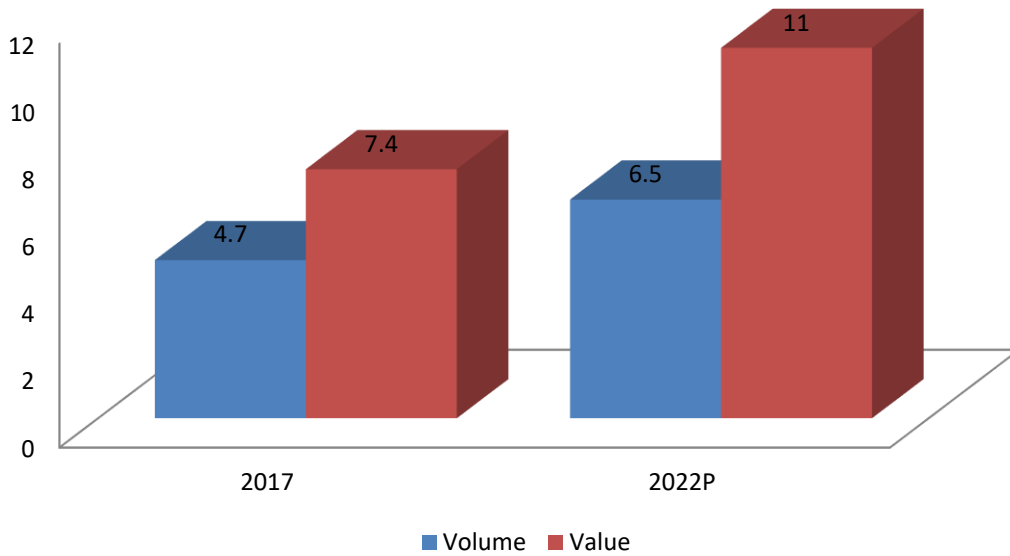
According to the reports, the volume of beer sales increased by an average of 6.9 percent per year between 2018 and 2022, reaching a total of 6.5 billion liters by the end of this period, compared to an estimated 4.7 billion liters in 2017.

Figure 31: Upwards growth of India's beer market



Source: (Editorial Dept., 2018)

Figure 32: Beer sales in volume and value



Source: IBEF Report

The beer market in India was valued at US\$ 7.4 billion in 2017 and is projected to grow to US\$ 11 billion in 2017 - 2022 at a CAGR of more than 7.6 percent.

5.5 SWOT analysis

Strengths:

- Increasing acceptance of alcoholic drinks with changing lifestyles, exposure to western culture, and urbanization.
- Strong beer (with ABV above 5 percent) dominates consumption with consumption of nearly 85 percent.
- Brewing with craft brewers of high quality.

Weakness:

- In most states, high and increasing taxation and government control over pricing put pressure on profitability. In most states, government control of distribution limits growth.
- Access to raw materials such as bottles is difficult, barley.
- Barrier to publicity

Opportunity:

- A combination of factors such as large and young people, increasing the acceptability of alcohol consumption, urbanization, and increased income, together with a low consumption base, offers an enormous opportunity for long-term growth.
- A couple of states have differentiated policies that favor lower-alcohol products such as beer. If this spreads to other states, it creates a massive growth opportunity.
- Fast growth potential due to low consumption per capita.

Threat:

- Prohibition has been introduced in a few late states, but the effect is limited and prohibition in Indian states has been abolished in a short period.
- The proposed GST regime does not include alcohol. If beer players do not receive a set of GST offs paid on inputs or if the price increase is not allowed, the earnings will be affected.
- Raw material costs such as bottles and barley are rising.
- Increased consumption of wine.

Conclusion

Based on the research method I have used that I can say that in India beer consumption and demand are increasing slowly because majorly people drink hard liquor drinks and in few states are dry taste means they are not allowed to drink alcoholic drinks. And India is a dominant country so majorly men who spend money on drinks and culture is different in India so if men or women drinking alcohol drinks it considers taboo. If government decreases the tax on alcohol drinks it will help new beer companies to come to India and do business. Demand is low due to the high price so if the price is reasonable people will drink beer compared to other alcoholic drinks.

While Americans and Europeans prefer their beer to be light on alcohol content, Indians have traditionally been part of a stronger brew, a preference that has been further emphasized late and an improvement in the image associated with such drinks.

Due to new product launches by foreign brewers and increasing sales of market leader Kingfisher Strong, the domestic market for strong beer grew faster in 2018 than in the last three years. A strong beer with more than 5% alcohol now accounts for more than 80% of all beer sold in India. Indian preference for strong beer has led Carlsberg, Foster's manufacturer Sab Miller, and Anheuser-Busch InBev to launch brands specifically tailored to the market in the last two years. They include Tuborg Strong, Carlsberg Elephant, and Budweiser Magnum, which are priced at or above Kingfisher Strong.

The overall category of mild beer is flat or decreasing, with 'super-premium' mild beers such as Kingfisher Ultra, Heineken, Carlsberg, Miller High Life are growing.

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Appendix

This survey form I conduct for this Thesis

1. How Old are you
 - 1.1. (_____)
2. What is your Gender
 - Male
 - Female
3. How much is your Income per month
 - More then 15K
 - More then 30K
 - More then 50K
 - More then 60K
4. Which alcohol drink you like to drink most?
 - Whisky
 - Rum
 - Beer
 - Cocktail
 - Juice
 - Vodka
 - Gin
 - Wine
5. Roughly How much do you like to spend on alcohol drinks?
(_____)
6. Alcohol Percentage Consumption in Relation to Frequency
 - Once
 - Alternet days
 - Every day
 - Only on weekends
 - Special Occasions
7. Reasons for Beer Consumption
 - Fun
 - Relaxation
 - No better option
 - Following majority
 - Sadness/Depression

