Concept of non conventional alcoholic beverages in india



The making of fermented beverages was discovered many thousands of years ago by primitive humans. This process of making fermented beverages has been practiced as an art over the years. However, within the past century, this art has evolved into a highly developed science. The beverage industry has a lot in common with other food industries. These common factors include taste, odour, colour & individual preference. These factors force the manufacturer or brewer as he would be called to exert his greatest skill and experience in producing palatable beverages of great variety. The main criteria for quality even with all the refinements of modern science, still lie with the human sensory organs of smell, taste and sight. Hence, a good brewer would have to be a great engineer, a good chemist & a good bacteriologist.

Alcoholic beverages can be classified as:

Distilled Liquors

Fermented Wines

Malt Liquors

Beer and ale require malted or germinated grain to make the carbohydrates present in them fermentable. Wines are generally produced by the action of yeast on the sugar of fruit. Distilled liquors are fermented liquors which are further distilled to increase their alcoholic content.

In India, today when one thinks of alcoholic beverages the first thing that comes to mind is the variants like Beer, Wine, Whisky, Brandy, Scotch, Rum, Vodka, Gin, etc. One would also think of the local alcoholic beverages called 'https://assignbuster.com/concept-of-non-conventional-alcoholic-beverages-in-india/

Desi' or 'Country Liquor'. However, the concept of non conventional wine or beer is completely new to the country.

Non Conventional Wines

When it comes to wine what comes to mind is grape wine (wine made from grapes) and for several thousands of years wine has been traditionally made by the fermentation of the juice of the grape. Wine is believed to be the most popular beverages associated with happiness, festivities and celebrations all over the globe. The global market for wine is estimated at around 25 billion liters. Many varieties of wine are made throughout the world and the French wines are considered to be the most popular all over the globe. In general wines would be classified as:

Red Wines - these are made from grapes without removing the skins

White Wines - these are made from grape juice

Sparkling Wines - these are considered to be carbonated white wines

Wine like other beverages can also be easily made from other fruits, roots & grains. These beverages are also referred to as wines. However these wines would have a prefix or suffix of the raw material fruit, root or grain. The concept of wine made from fruits, other than that of grapes is widely accepted all around the world but is still slightly new in India. Although there are some manufacturers that also make Apple Cider (wine made from apples) & Orange wine (wine made from oranges), this hasn't really taken off in the country. Wines made from certain roots & herbs are believed to be very healthy in nature.

Although alcoholic in nature, it is a proven fact that these other variants of wine are god for health. These healthier wine variants were considered as traditional remedies. We had wine made from Ginger that would be used to treat a common cold or wine made from Beetroot that could be used to control ones blood pressure.

Compared to other nations, wines manufacture i. e. production or consumption in India is relatively insignificant. This could probably be attributed to the earlier period of prohibition within the country. Another factor, with which wines poor consumption in India can be attributed to, is the higher prices of wine in comparison to spirits like brandy and whisky making it less attractive. These spirits are manufactured within the country and are referred to as Indian made liquors.

In India, wine was made mainly on a small scale and generally made domestically. Wine manufacture on an organized scale first commenced in the country with the setting up of the Champagne Indage Ltd. (Chateau Indage) plant in the state of Maharashtra in 1984. A few more units have set up after that within the country. These units are mostly located in the Nasik district of the state of Maharashtra as the climate is found to be more suitable and favorable for grapes used in wine making.

In today's world since people are becoming more health conscious, catering to this class of people will definitely be beneficial. It is believed that many positive aspects can be attributed to wine and its consumption both socially & health wise.

Wine Market in India

The Indian wine industry has been steadily growing over the last decade. Wine is now slowly becoming an integrated part of the urban Indian lifestyle. Rising incomes of the Indian population, changing demographics and an exposure to foreign cultures is adding to the higher consumption of wine. The Indian wine industry is growing at 25% – 30% per annum and for the year 2008; it was estimated at 1. 1 million per 9 liter cases and valued at Rs. 2400 crores.

The wine market is expected to grow to 4 million cases by 2015. The market for wine in India is expected to grow at around 20 % per annum. The per capita consumption of wine in India is still extremely low. However, there is a growing consumer interest in wines with a number of wine clubs opening in cities like Delhi, Chandigarh, Hyderabad and Bangalore. Nearly 80% of the wine sales in India are accounted for by the major cities like New Delhi, Mumbai, Chennai, Kolkata, Pune and Bangalore. West India accounts for over 41% of the total sales volume of wine in the country, followed by North India which accounts for 29% of the total sales volume. Nearly 90% of wine sales are for still wines i. e. white & red wines. Sparkling wines target that select segment of affluent consumers. Wines that are being seld in the market are generally around Rs. 300 per bottle. Even though cheaper variants of wine are available in the market, the market for these varieties is not growing as fast as medium priced wines. These developments and statistics show that it is definitely promising to set up new manufacturing units within the country.

These statistics are for conventional wines i. e. the grape wines. There is an entirely new market for the non conventional wines i. e. wines made from https://assignbuster.com/concept-of-non-conventional-alcoholic-beverages-in-india/

other fruits, roots and cereals that is completely untapped within the country. This market would includes wines made from ginger, beetroot, etc which are very healthy in nature & wines made from tropical fruits like mangoes, berries (strawberries, blueberries, cranberries, etc), oranges, apples, etc and even wines made from rice.

India has a vast range of fruits growing in the country, some which are more seasonal in nature. Thus we can harness this opportunity of the country's vast variety of tropical fruits and favorable climate to manufacture non grape wines which could prove to be much cheaper and lesser time consuming.

This can help to develop an entirely new wine market within the country & capture the same. Hence this non conventional wine could meet part of the demand from the growing domestic market and part of this production can also be exported.

It will also be very easy to set up a winery for manufacturing non conventional wines in Maharashtra easily as it will be backed by the government support and encouragement as this is an emerging industry that will contribute to the development of the economy. This is one of the reasons why Excise department of the state of Maharashtra imposes strict control of alcohol taxation, distribution and sale. Thus it fiercely protects its wine market and industry.

Non Conventional Wine Manufacturing Process

The quality of wine is largely dependent on the main raw material, the soil and sun. Slight differences in the three would result in a variation in the flavor, texture and aroma. The colour of the wine depends largely on the

nature of the fruit, root or cereal. It would also depend on whether the skins (in the case of fruits) are pressed out before fermentation.

Wines are technically classified as:

Natural Wines (Alcohol content - 7% to 14%)

Fortified Wines (Alcohol content - 14% to 30%)

Sweet or Dry Wines

Still or Sparkling Wines (Carbonated)

The method for manufacturing these non conventional varieties of wine is more or less similar to manufacturing the grape wines.

The method for manufacturing beetroot wine on a small scale is as follows:

Grating of Beetroot

Alcoholic Fermentation

Bulk Storage

Iterative Filtration

Maturation of Wine

Clarification and packaging

Raw Materials:

Beetroot

Water

Fresh Lemon juice

Strong tea - Source of tannin

Sugar

Yeast

Potassium Metabisulphite - Preservative (Check the growth of wild yeast)

The proportion of the quantity of each raw material requirement varies depending on quantity to be produced in liters and capacity of storage tanks.

Eg:- To produce 4 liters of beetroot wine, the requirements would be 1 Kg of beetroot, 1 Kg of Sugar, few lemons for lemon juice, 100 ml of strong tea, 4 liters of water and 1 tbsp of Yeast. This is to produce it of a homemade level.

Plant & Machinery:

The plant and machinery would consist of grating equipment, cleaning and washing equipment, mixing tanks (mixer), juice extraction unit, hot water tanks, storage tanks, fermenters, filters, pumps and bottling equipment.

Utilities:

Good quality water & power are the essential utilities.

Technology:

Wine making technology is very simple in nature and is still considered as an art and hence the guidance of a master wine maker is very essential.

Process:

A proportional quantity of beetroot depending on the quantity of wine to be produced is taken and initially undergoes grating. Grating is essential in the case of beetroots as it easily helps extract the juice from it. It is more efficient than crushing or boiling chunks of beetroot which gives lesser yield.

The grated product is then sent to a mixer with hot boiling water and is boiled in the water for a period of 45 – 60 minutes. By this time most of the juice gets extracted and the colour of the water turns to blood red.

Potassium or sodium metabisulphite in small quantity is added which acts as a preservative to check the growth of wild yeast. Proportionate amounts of lemon juice (obtained from the juice extraction unit) and strong tea are added to the mixing tank where this entire mixture is blended for about 30 minutes.

This mixture is then sent to the first filtration tank that filters out the beetroot juice from the grated beetroot, lemon seeds, tea leaves and other particles if present. The waste from this filtration unit is disposed off. The juice after being filtered is then sent to another mixing tank with a jacket that brings down the temperature of the juice to around 30oC. In this mixing tank a proportionate quantity of powdered sugar is added. Powdered sugar is essential as it can easily be saturated in the juice i. e. easily be dissolved. After another 30 – 40 minutes after all the sugar has been dissolved, the sweetened juice is then sent to fermenters where an active culture of selected and cultivated yeast equal to 3 to 5 percent of the volume of juice is added.

During fermentation the temperature rises and hence cooling coils are essential to maintain the temperature below 30oC. This process of fermentation takes around 3 to 5 days. The carbon dioxide evolved during fermentation carries any unfiltered particles to the top. When the fermentation slows down, the juice from the fermenter is pumped out from the bottom of the vat and over the top. This wine is finally run into closed storage tanks in the storage cellar, where during the period of 2 – 3 weeks the yeast ferments the remainder of the sugar.

The wine is then given a cellar treatment to clear it, improve the taste, and decrease the time of aging. During this treatment the wine is first allowed to stay quiet for 6 weeks to remove part of the matter in suspension, and then racked for clarification. During clarification and the following period the new wine would undergo a complicated series of reactions, resulting in the removal of undesired constituents and development of the aroma, esterification of the acids by alcohol. Bentonite may be used for clearing and 20 – 185 g can be added and stirred into every 100 liters of wine.

Extra tannin (strong tea) may be added to the wine which can be then racked and filtered through asbestos or paper pulp. It is a standard procedure to chill some wines for the removal of argols or crude potassium acid tartate. This treatment gives a more stable and finished wine. By quick aging methods it is possible to produce a good sweet wine in 4 months. Quick aging methods include pasteurization, refrigeration, aeration and agitation.

After a final filtration the wine can be sent to the bottling plant where it can be bottled and sealed and placed in cases ready for shipment for domestic or export purposes.

Similarly, other non conventional wines like ginger wine, mango wine, berry wine, etc. can be manufactured in a similar manner with slight variations in the process depending on the core raw material.

Cost of Project:

The cost of setting up a plant with a capacity of 5 lac liters of wine per year would work upto an initial investment of Rs. 5 crores to Rs. 6 crores. This however, does not include the cost of a plantation.

- * Statistics Source: Statistical data obtained from the report on "
 Comprehensive Study of the Indian Wine Market" Conducted by JBC
 International Inc.
- * Values of Parameters in manufacturing process Source: Shreve's Chemical Process Industries George T. Austin

Marketing Non Conventional Wines in India

The concept of non conventional wines in India is completely new and hence as per Ansoff's Matrix it will follow the Product Development Strategy.

Ansoff's Matrix

Existing Market

New Market

New Product

Existing Product

Thus it is essential for a marketer to ensure that efficient new product development strategies are implemented like minimizing cost, improving marketability, etc. for this product to be a success in the market.

Statistics show us that a large part of the Indian wine market is partly driven by the upper class and upper middle class Indians. The upper class and upper middle class Indians are estimated to be around 2% of the population and therefore approximately 20 – 25 million people. Many of these Indians have an increasing level of disposable incomes, and have a greater experience with international lifestyles. This exposure is either through work, studies or travel. These individuals are also now diverting their attention to healthier lifestyles i. e. they are now becoming health conscious. It is also a proven fact that a glass of wine a day is good for health. Thus a glass of beetroot wine or ginger wine or any other variant will be more beneficial.

Thus targeting this segment of the population is much easier on account of their changing lifestyles and preferences along with their higher levels of disposable income.

Now that the target segment has been identified, the marketer needs to position the product in the minds of the consumers. Thus the marketer can position the wines made from roots, herbs and cereals as a healthy alcoholic beverage and wines made from fruits other than grapes as a tropical alcoholic beverage. However, it should be positioned in such a way that

there is no misuse of this positioning that could possibly lead to alcoholism. The marketer cannot use media like advertising as advertising for alcohol is not permitted within the country. Thus the marketer can organize wine tasting events for the upper class & upper middle class Indians wherein the different wines can be sampled and sold also. This can also be a PR event where the press can be invited to write reviews on this new range of wines.

Another aspect that the marketer can carry out is targeting the Hospitality sector, i. e. targeting the major Hotels and restaurants where it is possible to reach the target customer. Such wines could also be served at media events to spread awareness and increase demand for the product.

SWOT Analysis of the Wine Industry in India Strengths:

Domestic Wine industry is a new and emerging industry in India

Few wineries in the country and most of the wineries are located in Maharashtra

Complete Government support as this industry can produce products at a cheaper rate to be exported

12 major wine producers in the country and most of them manufacturing grape wines

Very few manufacturers of non conventional wines

Target customer segment located majorly in metros like Delhi & Mumbai

Weaknesses:

Most wineries in Maharashtra thus intense competition in the state to manufacture at cheapest price

Heavy taxation on distribution and sale

Competing with established Indian brands and well known foreign brands

No provision for advertising in electronic and print media, thus making the target audience aware becomes a challenge and a difficulty

Opportunities:

Non conventional wines are healthier in nature and may prove to be appealing to target audience

Tremendous opportunities for export on account of Government support

More and more exposure to foreign cultures through television, work, travel, etc. and hence an expanding customer base

Threats:

Major threat of competition from foreign players and established Indian players

Threat or competition from other alcoholic beverages like beer, vodka, white rum that are more appealing to the younger generation of the upper middle class & upper class segment

Thus although capturing the market may be a challenge to the marketer, there indeed is tremendous potential for non conventional wines in India

Non Alcoholic Beverages

Introduction

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When it comes to the non alcoholic beverage industry one would think that it refers to the soft drink beverage industry. However, this is actually not the case. The soft drink industry is divided into just three categories. These include the black soft drinks (cola), orange soft drinks & the white soft drinks (include anything other than cola and orange). The leaders in the cola segment are Coke and Pepsi with Thums Up falling in third. In the orange segment the leaders are Fanta & Mirinda. In the white segment the undisputed leader is Limca with close competing followers like Sprite, 7 Up, Lemonade, Mountain Dew, etc. The total soft drink market is estimated at 284 million crates a year or \$1 billion. In 2006 it was valued at \$3. 8 billion and is estimated to have a value of \$5. 6 billion by 2011. The market is highly seasonal in nature with consumption varying from 25 million crates per month during peak season and 15 million crates per month during offseason. This market is predominantly urban with a 25% contribution from rural areas. The market leader is Coca-Cola due to Coke & Thums Up. India being a highly diverse nation with a huge population, there exist tremendous potential in the beverage industry.

The Non Alcoholic beverage industry includes categories like fruit & vegetables juices, energy drinks, non-carbonated drinks, etc. This includes the health beverages. This market is now continuously growing as people are becoming more and more health conscious. The reason being it is believed that consumption of aerated beverages leads to diseases lie obesity, type 2 diabetes, dental decay and low nutritional levels. It has been witnessed that https://assignbuster.com/concept-of-non-conventional-alcoholic-beverages-

cola sales have reduced drastically due to health concerns and this has benefited the non-carbonated drinks market in the country like energy drinks and juices. The Indian non alcoholic drinks market was estimated at Rs. 216 billion in 2008. It is forecasted to grow at a CAGR of around 15% during the years 2009-2012. The highest growth in this segment is generally seen in the fruit or vegetable juice market. This is forecasted to grow at a CAGR of 30% in terms of value from the years 2009-2012. It will be closely followed by the segment of energy drinks which is expected to grow at a CAGR of 29% during the period 2009-2012. There is a greater awareness now among the masses of the functional benefits of health beverages and a greater willingness to pay a premium price for such beverages.

Due to these strong drivers of growth, it is evident that the beverage industry in India has begun responding to products that are marketed on a health platform. The non alcoholic beverage industry is classified again into carbonated and non carbonated beverages. The carbonated segment includes drinks like energy drinks, ginger ale, root beer, etc. The non carbonated segment includes juices of fruits & vegetables, bottled water, non alcoholic wines, coffee, tea, etc.

*Statistics Source: Report on "Indian Non-Alcoholic Drinks Forecast to 2012"

Non Alcoholic Wines

In India, few wine manufacturers are now trying to attract customers by manufacturing non alcoholic wines. However there is not much demand that has been observed for the same. A non alcoholic wine is a new concept that has not been popularized much in India. One of the major reasons of its low

popularity is that there are myths that it still contains a certain percentage of alcohol. This however is not true.

Non alcoholic wines need not necessarily be made from grapes. It can be made from various fruits like apricots, mangoes, apples, oranges, berries etc. These are like beverages that could be carbonated or non-carbonated. A typical known non-alcoholic wine beverage in the United States of America is the 'Almost Wine Cooler'. It is known as a virgin wine cooler. This is an aerated beverage that is made from wine and other fruit juices without any alcohol content.

These beverages are believed to be healthier than the normal aerated beverages like cola, etc. These can be served to people of all ages. However since these are made originally from alcoholic beverages it is mandatory for the manufacturer to put a label on the packaging showing a minimum alcoholic content percentage in the USA. Hence in America, kids below the age of 21 are not allowed to purchase non alcoholic beverages.

Non Alcoholic Wine Manufacturing Process

Wines are made non alcoholic in nature through the process of reverse osmosis. Firstly wine is manufactured through its normal process and it then undergoes a process of reverse osmosis where the alcohol is separated from the wine to give a concentrated wine solution. This then undergoes carbonation where the concentrated non-alcoholic wine is carbonated depending on requirement.

In the case of the beetroot wine example as mentioned above the process for manufacturing the wine will remain the same. After the last clarification https://assignbuster.com/concept-of-non-conventional-alcoholic-beverages-in-india/

or filtration stage, instead of bottling the wine, the wine is sent to a tank where it gets carbonated with CO2 under pressure. After this stage it goes through the bottling process.

Reverse Osmosis: It is a patented method and is much more efficient than the evaporation and distillation method.

Equipments: Storage tanks, Pumps, Reverse osmosis unit and a valve

Process:

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In the reverse osmosis method a tank is initially filled with the alcoholic wine. This tank is connected to a pump that pushes the wine into a reverse osmosis unit. The reverse osmosis unit consists of a membrane having very small pores encased in cylinders. The wine flows through the membrane at very high pressure and through the small pores. The mesh like membranes that are encased in cylinders separate the wine into a syrupy concentrate and an alcohol – water mixture. Thus the membrane separates out the syrupy concentrate from the alcohol and water.

The alcohol and water mixture is sent to a storage tank that collects all the alcohol and water. The syrupy wine concentrate gets recycled back to the original tank containing the wine thus reducing the percentage of alcohol in the tank. The syrup is recycled through a valve that controls the flow. This cycle is repeated around 10-20 times till the alcohol concentration or alcohol percentage is reduced to completely zero. After this, water gets reintroduced to the tank with the concentrated syrup to obtain the final product. The finished product taste is almost similar to that of the original wine if not sweeter and the percentage of alcohol in this product is almost zero. It is https://assignbuster.com/concept-of-non-conventional-alcoholic-beverages-

believed to be around one half of one percent of alcohol. Hence non alcoholic wines are also called zero alcoholic wines.

Source: http://www. clarety. co. nz/

This finished product then passes to a tank for carbonation under high pressure depending on requirement for carbonated beverage. This product can also be reasonably priced to compete effectively with the soft drink beverages like the cola's, and also to effectively compete against juices and energy drinks.

Root Beer

Another concept that is completely new in the country is root beer. Root beer is the biggest non alcoholic beverage in the west. It is extremely popular and is accepted as a healthier drink as compared to Coke, Pepsi, etc. Other variants of root beer include fruit beer, birch beer and ginger ale. These again are non alcoholic beers prepared from various fruits and Ginger syrup (for ginger ale).

Root beer can be manufactured either as alcoholic or non alcoholic (i. e. soft drink). However the non alcoholic root beer is still more popular in the USA. The main ingredient initially in the manufacture of root beer was Sarsaparilla or Sweet Sarsaparilla. However now a days it is more favorable to make root beer from root beer extract. This is due to the carcinogenic nature of this plant. Root beer extract consists of caramel colour, imitation vanilla, water and alcohol. It consists of a very small proportion of alcohol. Studies show that root beer made from root beer extract has around 0. 35% alcohol. This can be easily removed by reverse osmosis.

Root Beer Manufacturing Process

Root beer is much simpler and easier to manufacture as compared to actual beer.

Raw Materials Required: Root Beer Extract, Water, Yeast & Sugar

Equipment: Storage tanks, Mixer, Filtration unit, Fermenters and pumps

Process:

Sugar in a proportionate quantity to the quantity of the root beer to be manufactured is added to the mixer with an agitator. This would ensure the powdering of the sugar. Next a small quantity of yeast is added to the mixer and this mixture is blended well. After blending the mix from the mixer is sent to the fermenters. The fermenters are fermentation tanks where a proportionate quantity of root beer extract is added. This extract mixes well with the mix of powdered sugar and yeast. To this mixture in the fermentation tank water is added. The minute water is added the temperature of the mixture in the tank rises up. This is due to the fermentation of sugar carried out by the yeast. Thus the tank can be provided by cooling coils or a jacket to maintain the temperature to below 30oC.

This mixture from this tank is sent to a sealed tank with a pressure relief valve to release the pressure being developed and to ensure that there is no explosion. The sealed tank also ensures no outside activity of air or oxygen on the mixture in the tank. Fermentation takes place in around 5 days and after 5 days the mixture is passed though a filtration unit where any

undissolved yeast or sugar is separated out. The solution is then moved into a storage tank maintained at cooler temperatures to ensure no yeast enzyme activity and to ensure no further fermentation.

After storage, when the fermentation process has completely slowed down the finished product can be sent to the bottling plant for packaging. This solution or finished product contains a very small percentage of alcohol i. e. around . 35%. This can be reduced to zero by the reverse osmosis process.

Reverse Osmosis: It is a patented method and is much more efficient than the evaporation and distillation method.

Equipments: Storage tanks, Pumps, Reverse osmosis unit and a valve

Process:

In the reverse osmosis method a tank is initially filled with the root beer. This tank is connected to a pump that pushes the root beer into a reverse osmosis unit. The reverse osmosis unit consists of a membrane having very small pores encased in cylinders. The root beer flows through the membrane at very high pressure and through the small pores. The mesh like membranes that are encased in cylinders separate the root beer into a root beer concentrate and an alcohol – carbonated water mixture. Thus the membrane separates out the root beer concentrate from the alcohol and water.

The alcohol and water mixture is sent to a storage tank that collects all the alcohol and water. The root beer concentrate gets recycled back to the original tank containing the root beer thus reducing the percentage of

alcohol in the tank. The root beer concentrate is recycled through a valve that controls the flow. This cycle is repeated around 10-20 times till the alcohol concentration or alcohol percentage is reduced to completely zero. After this, water gets reintroduced to the tank with the concentrated syrup to obtain the final product. The finished product looks exactly like the original root beer and taste is almost similar to that of the original root beer if not sweeter and the percentage of alcohol in this product is almost zero.

This finished product then passes to a tank for carbonation under high pressure to carbonate the non alcoholic root beer. It is also possible to manufacture this root beer on a small scale level or a homemade level. Thus since it is quiet cheap to manufacture root beer, it is seen that it will be competitive in nature to the existing beverages in the market and capture that market.

Similarly ginger ale, birch beer, etc. can more or less be manufactured in the same way.

Marketing Non Alcoholic Wines & Root Beer in India

The concept of root beer in India is completely new and hence as per Ansoff's Matrix it will follow the Product Development Strategy.

Ansoff's Matrix Analysis for Root Beer

Existing Market

New Market

New Product

Existing Product

Thus it is essential for a marketer to ensure that efficient new product development strategies are implemented like minimizing cost, improving marketability, etc. for root beer to compete in an already existing market of non alcoholic beverages and soft drink beverages to be a success in the market.

A large part of the Indian population especially the upper class & the upper middle class is changing its lifestyles and are now trying to adopt the lifestyles of the people in the West i. e. people in developed nations. Another noticeable fact is that these classes of Indians have now started to spend more this means an increase in their disposable incomes. Hence it will be feasible to sell non alcoholic wines and root beer to this target segment after careful positioning strategies and distribution strategies.

The non alcoholic wines and root beer can be positioned as healthy beverages that can prove to be better and healthier substitutes to the unhealthy soft drink beverages. Also after obtaining all the necessary licenses these