

Comparative Study on Consumer Preference of Fruit Drinks and Carbonated Drinks in Sri Lankan Beverage Market

**Roshini Rambukwella
Duminda Priyadarshana
Ruvini Vidanapathirana**

Research Report No: 177

January 2015

**Hector Kobbekaduwa Agrarian Research and Training Institute
114, Wijerama Mawatha
Colombo 7
Sri Lanka**

First Published: January 2015

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Final typesetting and lay-out by: Dilanthi Hewavitharana

Coverpage Designed by: Udeni Karunaratne

ISBN: 978-955-612-184-1

FOREWORD

Today, consumers are concerned over health and wellness. As a result, there is a significant impact on beverage purchases. Many studies have shown that consumers are concerned with good health as they are keen in maintaining a high quality of life. Recent development in soft drink consumption and challenges in marketing have heightened the need for research into consumer needs and preferences. Hence, it is timely to recognize the prospective consumers and their preferences and opinions in order to develop and market the product in a better way in the future. The food manufacturing company must know if consumers like their products and why. The purpose of this study is to develop a better understanding of consumer preference and consumption patterns of fruit drinks and carbonated drinks of consumers in Kandy, Hambantota, Anuradhapura and Gampaha districts in Sri Lanka.

An important finding that emerged out of the survey was that more than 70% of the respondents in all the four districts approve of the popularizing of the fruit drink industry in Sri Lanka instead of carbonated drinks. Fruit drink market in Sri Lanka is dominated by the well-reputed brands of local fruit drinks, followed by well reputed brands of imported fruit drinks. Hence small scale fruit drinks limited only to particular localities cannot compete at that level. However, there is demand for that variety from rural areas of all the four districts. Hence, there is a possibility to improve that market. The study concludes that, more than 70% of consumers in all the four districts, preferred fruit drinks over other varieties. It is revealed that there is more room for the fruit drink market to improve in future.

I congratulate the team of researchers for successfully undertaking this study and hope the findings and suggestions of the study would be useful to policymakers and the key players of the beverage sector.

E.M. Abhayaratne
Director

ACKNOWLEDGMENTS

The authors are very much thankful to Mr.E.M. Abbhayaratne, the Director of HARTI for guiding them to publish this report. Professional support given by Mr. J.K.M.D. Chandrasiri, the Additional Director of HARTI, throughout the study is highly appreciated. Sincere thanks also go to Dr.L.P. Rupasena, former Additional Director HARTI for his guidance and motivation to complete this study successfully. We wish to thank Ms.C.P. Hathurusinghe, the Head, Marketing, Food Policy and Agribusiness division of HARTI for her valuable comments. We also appreciate the support and comments given by Dr. Dharmarathne, the former Head, Marketing, Food Policy and Agri-business division of the HARTI.

The dedicated services provided by Mr. Ajith Rathnasiri, the Statistical Officer of HARTI in coordinating and supervising field data collection is highly appreciated. We also thank Mr.K.A.R. Pathmasiri and Mr. N.A.K. Shantha Anurasiri the Statistical Assistants of HARTI, Ms. H.L. Hewage, Ms. P.N.K. Premarathna, Ms. H.K.S.N. Jayarathna and Ms. K.K. Harshani Iroshika, the Casual Investigators of this project for the assistance extended for data collection. We wish to express our gratitude to District Secretaries in Gampaha, Anuradhapura, Hambantota and Kandy for helping us to conduct the sample survey by providing us necessary information.

We would like to thank Dr. M.S. Senanayaka, the Head of Statistics and Data Processing unit, Mr.M.D.L. Senarath, Senior Analyst Programmer, and Ms. C.N. Premawardana, Analyst Programmer, and the staff attached to the Statistics and Data Processing Unit of HARTI. They delivered their services in analyzing the data and for timely preparation of the request data output and we appreciate their dedicated services. Ms. Chandrika Hettige and Ms. Poshini Sanjana of MFPA division of HARTI provided their services in typesetting the questionnaires. Our thanks are also extended to all the staff of MFPA division in HARTI for providing us all forms of support to carry out this research.

We are extremely grateful to Ven. Prof. W. Wimalaratana Thera and Dr. Anuradha D.H.K. Kankanamge, the external reviewers for the excellent feedback which helped us to improve the content of the report. Special thanks go to Ms. K.S.N. Perera for the expert editorial assistance provided. Finally we wish to thank the staff of the Publication Unit and the Printing Staff and the Assistant Registrar (Programme) and her staff of HARTI for making necessary arrangements to publish this report.

Roshini Rambukwella
Duminda Priyadarshana
Ruvini Vidanapathirana

ABSTRACT

Among many industries, the food and beverage industry is one of the fastest growing sectors in the economy that has the potential to grow even further. With the changing lifestyle and income levels, people are shifting their consumption patterns and have therefore become more health conscious, creating an increased demand for juices. Sri Lanka's total soft drink market is worth around 80million dollars and fruit juice market is 12million dollars. Fruit beverage (Ready-To- Drink) industry is an important beverage market in Sri Lanka which is worth of US \$12million and has an annual growth rate of 12%. When surveying the literature, we found there are more disadvantages than advantages of carbonated drinks. On the other hand, regardless of the few disadvantages, fruit drinks may deliver a lot of advantages upon consumption. According to the "Mahinda Chinthana - Way Forward" document, the government has planned to popularize fruit juices instead of carbonated soft drinks. In the recent years there have not been many studies about the beverage consumption and consumer behaviour and therefore, the consumer preference for carbonated drinks and fruit drinks in Sri Lanka is not well documented. The main objective of the study is to identify the existing consumer preference of carbonated drinks and fruit drinks in the Sri Lankan beverage market. The other objectives are, to find out the factors that influence the consumption of carbonated drinks and fruit drinks and to study the consumer preference for the various existing brands of fruit drinks. The study was conducted in four locations: Gampaha, Anuradhapura, Hambantota, and Kandy where the government has planned to establish fruit processing factories and the sample size was decided as 600 people.

According to the findings, more than 75% of the consumers in all the four districts preferred fruit drinks to carbonated drinks because they considered it healthy. However, majority of the carbonated drink consumers are used to it as it has a good taste, higher availability (everywhere), convenience and is relatively less costly than fruit drinks. More than 54% of the consumers in all the four districts preferred small sized (buddy) pack of both fruit drinks and carbonated drinks due to affordability and portability. More than 80% of the consumers are not concerned about the ingredients of the beverages but 92% of the respondents are concerned only about the date of expiry. An important finding that emerged out of the survey was more than 70% of the respondents in all the four districts approve of the popularizing of the fruit drink industry in Sri Lanka instead of carbonated drinks. According to the statistical relationship, taste was the only factor which was considered by the sample respondents when they consumed both fruit and carbonated drinks. Further, it was mentioned that appearance and package were not considered much by the sample consumers. Fruit drink market in Sri Lanka is dominated by well-reputed brands of local fruit drinks, followed by well reputed brands of imported fruit drinks. Hence small scale fruit drinks limited only to particular localities cannot compete in this context. However, there is a demand for that variety from rural areas of all the four districts.

According to the survey, the fresh fruit juice and ready- to- drink fruit nectar category also has great potential. Hence, this study recommends that, it is important to establish and expand the fresh fruit juice centers island wide, beginning from the government institutions and schools. The quality standards and the taste of fruit drinks should be increased by performing frequent quality check-ups and introducing new tastes. A robust advertising program must be launched to increase the awareness of the fruit drinks and popularity of fruit drink industry. With the changing lifestyle, people have started becoming more health conscious. Therefore, the fruit

juice companies should use appropriate marketing strategies to capture the market in the future. The government should provide more facilities to small scale fruit drink producers to reach the larger market. Packaging should be healthy, safe, transparent and attractive. Easy-to-carry and use-and-throw packages are popular (majority of the consumers preferred plastic bottles due to convenience) hence, the companies must take these points into account.

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CHAPTER ONE

Introduction

1.1 Introduction

A drink or beverage is a liquid specially prepared for human consumption. Apart from being a basic need, beverages form part of the culture of human society. We can categorize beverages mainly into two types such as alcoholic beverages and non-alcoholic beverages. Most beverages contain a great deal of water. This does not add many nutrients to the diet, but it does play an important role in maintaining body balance by preventing dehydration. Beverages are not usually consumed for their food value, but many, particularly the fruit drinks, contain quite a high percentage of sugar and therefore add to the energy content of the diet. Certain drinks contain artificial flavors and colors. The use of such additives is governed by legal requirements and it is vital to adhere to these regulations in order to protect the consumer from any undesirable side effects. In many countries alcohol production is strictly controlled by government agencies and it may be difficult to obtain permits to produce these beverages legally (Sivasomasekhar, 2010). In most countries, the market for alcoholic and non-alcoholic drinks is specific due to religious and cultural taboos.

Many carbonated soft drinks are optionally available in versions sweetened with sugar or with non-caloric sweeteners. Fruit juices are liquids that naturally contain fruit or vegetable tissue. Fruit juices may be marketed in concentrate form, sometimes frozen, requiring the user to add water to reconstitute the liquid back to its “original state” (Arpit, 2012). Everyone loves to drink fruit juice due to its delicious taste and health benefits. Drinking juice made of fresh fruits is part of a healthy and complete diet. Compared to soft drinks, fruit juice is rich in vitamins and minerals. It is also an excellent source of fiber if consumed along with its pulp. There are many types of juices made from fresh fruits. Unlike the canned juices with added preservatives, these juices do not contain added sugar and colors which are detrimental to health. Juices are made from different types of fruits including apple, orange, cranberry, mango, pineapple, grapes, banana, strawberry, watermelon and so forth. Combinations of different fruits are also used to make delicious juices. Fruit juice is an essential source of Vitamin C, Vitamin B, iron and minerals. Intake of fresh juices has innumerable benefits. It helps improve the skin and promotes better growth of hair. These juices can be digested easily and prove to be a dietary supplement. Juice therapies are prescribed by doctors as part of the detoxification process and to reduce weight.

Soft drinks trace their history back to the mineral waters found in natural springs. Ancient societies believed that bathing in natural springs and/or drinking mineral waters

could cure many diseases. The earliest soft drinks were sherbets developed by Arabic chemists and originally served in the medieval Near East. These were juiced soft drinks made of crushed fruit, herbs, or flowers. The drink is still available today, but is made with flavorings and carbonated water. The first marketed soft drinks (non-carbonated) in the Western world appeared in the 17th century. They were made from water and lemon juice sweetened with honey. In late 18th century, scientists made important progress in replicating naturally carbonated mineral waters. In 1767, Englishman Joseph Priestley first discovered a method of infusing water with carbon dioxide to make carbonated water (Arpit, 2012).

The beverage market is worth \$55 billion worldwide. In order to be successful in the market place, one has to think in terms of health innovation, flavor innovation, ingredient innovation and specific age groups. These are factors that will shape the future of the beverage industry. Do you know what type of new beverage the consumers are most likely to try? Do you know from where and why they are most likely to pick up those products? Beverage industry wanted to know the answers to these questions and to investigate deeper into the increasing number of new products launched in the beverage market.

With the changing lifestyle and income levels, people are changing their consumption patterns and becoming more health conscious. This may lead to an increase in the demand for juices. Market research is based on some underlying parameters such as:

- I. Changing consumption patterns
- II. Health factor
- III. Status consciousness
- IV. Varying lifestyle

Preference is a key element in consumer research as it forms the basis of purchase intentions and actual choice and consumption. This is why a lot of research has been done about preferences, evidently having an important impact on demand. On the other hand, this explains why studies take actual purchasing behavior as an indicator of preferences and therefore also for taste considering that consumption behavior seems to be blatantly different. First, taste should differ across space, like from Asia to Europe. Second, taste could differ across time in the individual lifecycle, as an individual develops and taste changes with time. Third, taste may differ across generations as grandparents, parents and grandchildren have different preferences. What are the ultimate reasons for consumption? Clearly, the most important reason is a physiological need. But once this is satisfied, human beings strive for psychological and physiological well-being, which might include any satisfaction of non-basic needs or even consumption for prestige reasons (Abdulla et.al, 2011).

1.2 Justification of the Study

Among many industries, the food and beverage industry is one of the fastest growing sectors in the economy that has the potential to grow even further. With the changing lifestyle and income levels, people are shifting their consumption patterns and have therefore become more health conscious, creating an increased demand for juices. Sri Lanka's total soft drink market is worth around 80million dollars and fruit juice market is 12million dollars. Fruit beverage (Ready- To- Drink) industry is an important beverage market in Sri Lanka which is worth of US \$12million and has an annual growth rate of 12%. However, it has a less value compared to the total soft drink market (Niroshan et al, 2008). When surveying the literature we found there are more disadvantages than advantages of carbonated drinks. In contrast, regardless of the few disadvantages, fruit drinks may deliver a lot of advantages that go along with their consumption. According to that, there is huge potential to develop the fruit drink market in Sri Lanka. Though, there is no real health benefit and no nutritional value in carbonated drinks, the market share of carbonated drinks is still higher than the fruit drinks since globally and locally reputed, large scale companies dominate the beverage market. Further, according to the "Mahinda Chinthana -Way Forward" document, the government has planned to popularize fruit juices instead of carbonated soft drinks. To fulfill that end modern fruit processing factories are to be established in eight locations; Gampaha, Anuradhapura, Polonnaruwa, Hambantota, Badulla, Kilinochchi, Kandy and Kalutara. Ready-to-drink fruit drinks will have a great potential in the local market in future. Fruit juice is a growing beverage category in Sri Lanka, driven by people's desire to lead a healthy life (www.Lanka business online.com). Sri Lanka's total soft drinks market is worth around 80 million dollars with 100 million liters being consumed annually and the fruit juice industry which is worth 12 million dollars, accounts for about one fourth of the country's total soft drink sales each year (www.Lanka business online.com). Sri Lankans prefer natural products and there is a demand for natural fruit juices. Hence, Coca-Cola, one of the world's biggest soft drink makers, is also investing four million dollars to setup a fruit juice plant in Sri Lanka and it plans to gain a toehold in the growing "wellness" market where health conscious Sri Lankans are seeking natural foods(www.Lanka business online.com). Hence, fizzy drink giant Coca-Cola is trying to corner Sri Lanka's market by offering fruit juice to locals looking for natural drinks over carbonated soft drinks.

Today's consumers are concerned over the health and wellness and they are inclined towards natural drinks. As a result, there is significant impact on food and beverage purchases. Many studies have shown that if the consumer is concerned over good health they are concerned over maintaining a high quality of life. Recent development in soft drink consumption and challenges in marketing have heightened the need for research into consumer needs and preferences. Hence, it is timely to recognize the prospective consumers and their preferences and opinions in order to develop and

market the product in a better way in the future. The food manufacturing company must know if consumers like their products and why.

In the recent years there have not been many studies about the beverage consumption and consumer behaviors and therefore, the consumer preference for carbonated drinks and fruit drinks in Sri Lanka is not well documented.

Further, the recent developments and changes in the beverage market have created a need to investigate consumer needs and preferences and this study aims to determine the factors influencing the consumer's decision, and also need to study the factors that are now driving the consumer's purchasing decision.

1.3 Objectives of the Study

The main objective of the study is to identify the existing consumer preference of carbonated drinks and fruit drinks in the Sri Lankan beverage market.

Other objectives are,

1. To find out the factors that influence the consumption of carbonated drinks and fruit drinks.
2. To study the consumer preference for the various existing brands of fruit drinks.

1.4 Organization of the Report

This report is divided into six chapters. The introductory chapter discusses the beverage sector in brief and the problem which gave rise to the need for this study and the objectives of the study. The next chapter reviews the literature on consumer preference for beverages, factors affecting consumption and the knowledge of the consumers about different brands. The third chapter explains the methodology and nature of the study locations. The fourth chapter presents an overview of the beverage sector and the fifth chapter is devoted to presentation and analysis and the last chapter presents major findings, conclusion and sets out recommendations.

CHAPTER TWO

Review of Literature

2.1 Advantages and Disadvantages of Fruit Drinks and Carbonated Drinks

2.1.1 Fruit Drinks

2.1.1.1 Advantages

Certain benefits and the energizing effects of fruit juice are fast. It transforms human health with a wellness technique that bolsters their immune system and cleanses human body of harmful toxins. Juicing provides humans with essential nutrients quickly, supplying a variety of much needed health improvements. It can also help increase their resilience to common illnesses such as colds. Followings are some benefits of fruit juices (<http://Livestrong.com>).

- I. Nutrition Pluses
- II. Hydration
- III. Healthy Lifestyle Selections
- IV. Fast cleanse of bodily systems
- V. Fast improvement of resistance to flu and other bacteria and virus
- VI. Juice improves energy levels
- VII. Other health benefits

The variety of fruit juices available on any supermarket shelf (and even in some tiny convenience stores) is staggering. It is now common to have juices in different combinations, including exotic tropical fruits such as mango, guava, berry and more. Some juices, such as pomegranate, advertise additional health benefits from the antioxidants present in the fruit. Although many of these juices do contain a healthy amount of vitamins and minerals, almost all of them also contain a high level of calory and sugar. Following are a few benefits of drinking fruit juice (www.HealthGuidence.com).

- I. A good source of vitamins and minerals
- II. An easy way to fulfill your daily serving of fruit
- III. Availability of antioxidants and phytonutrients

2.1.1.2 Disadvantages

It is important to purchase juice that is labeled as "100% fruit juice." Many juices on the market contain only 10% fruit juice, the rest being comprised of water and added sugar.

There should be no sugar added to your juice, nor should the juice contain artificial sweeteners, which are even worse for your health than sugar. Following are few of the disadvantages in drinking fruit juice (<http://Livestrong.com>).

- I. High in sugar
- II. Bad for your tooth enamel
- III. High in calories
- IV. Short shelf life

2.1.2 Carbonated Drinks

2.1.2.1 Advantages

Carbonated drink consumption has increased substantially over the last 50 years and it is established that consuming large amounts of carbonated drinks regularly can be harmful to human health. Though there is no nutritional value and no health benefit of drinking carbonated drinks, if consumed in moderation carbonated drinks can have some beneficial effects on the human body. Following are a few advantages of drinking carbonated drinks (<http://Livestrong.com>).

- I. Carbonated water benefit
- II. Sodium benefit
- III. Caffeine benefit
- IV. Cola benefit

2.1.2.2 Disadvantages

Regardless of the few benefits that carbonated drinks may deliver, people need to be aware of the risks that go along with their consumption. Americans consume more than 13 billion gallons of soda a year, according to the University of Texas Health Science Center at Tyler. Sodas typically contain carbonation, sugar or fructose, phosphoric acid, sodium and excess calories. Unfortunately, sodas are often a substitute for water and other healthier fluids. Consuming soda trigger many ill-effects, including dehydration, high-sugar intake, and weight gain and calcium depletion. The followings are some of the disadvantages of consuming carbonated drinks (<http://Livestrong.com>).

- I. Dehydration
- II. High Sugar Content

- III. Weight Gain
- IV. Calcium Depletion
- V. Heart Diseases
- VI. Diabetes
- VII. Dental Problems
- VIII. Gout

In addition to above mentioned disadvantages, some risks can be stated as follows,

- I. Kidney Damage
- II. Increased blood pressure
- III. Likely to cause heartburn
- IV. Metabolic syndrome
- V. Harmful effects on liver
- VI. Impaired digestive system
- VII. High caffeine content
- VIII. Toxins-Aspartame responsible for cell damage

2.2 Consumer Preference and Factors Affecting Consumption of Beverages

A number of studies have examined the consumer preferences of beverages.

Niroshan et al (2008) carried out a research using a pre tested questionnaire to determine the most preferred beverages in the domestic market, the state of brand loyalty, factors affecting consumers' decision and to find out the attitudes towards different attributes of RTD fruit beverages. Stratified random samples of 100 respondents from Anuradhapura, Colombo, Kurunegala, Puttalam, and Chilaw municipalities were used. Results revealed that Smack RTD fruit brand among the mixed fruit beverages in the non-carbonated fruit beverage category is the most preferred brand even though the fruit beverage industry showed a switching or shifting loyalty. Flavor, quality and nutritive values were considered at purchasing and further improvement of certain attributes of fruit beverages were highlighted by the consumers. Adopting proper marketing strategies and implementing further developments of the products can create more loyalty among consumers while localized collusion of domestic entrepreneurs need to emphasize meeting these challenges to increase market share and to break hegemony of the carbonated beverage giants.

Stephen (2008) revealed that, the intensity of colour and flavour rules consumer preferences and they are the key drivers behind consumer acceptance of beverages. But packaging and labeling are not important for winning over consumers and it further highlights the importance of adopting a sensory marketing approach.

According to Davis (2007), preference tests were performed on varieties of cola drinks, orange juices, using three response protocols: the traditional paired preference test with the "no preference" option, a 9-point hedonic scale and a 6-point hybrid hedonic/purchase intent scale. Different stimuli to be assessed were presented in pairs, but putatively identical stimuli were also presented as a "placebo" pair. Performance on the placebo pair with identical stimuli provided a measure of the hidden demand characteristics of the test protocol. The presentation of the different pairs provided a measure of preference accompanied by such hidden demand effects. The order of presentation of the identical and different pairs did show occasional slight evidence of contrasting effects. For the placebo "identical" pairs, a majority of consumers reported false preferences. Liking questions with the hedonic and hybrid scales elicited fewer false preferences than preference questions with the paired preference protocol. Yet, the effects tended to be slight. The 6-point hedonic/purchase intent scale exhibited the fewest false preferences in the placebo condition, and this was because of its fewer categories rather than any cognitive strategy change elicited by its different labels.

According to Daniels (2008), the main factors which drive consumer preference for this concept are color intensity and flavoring. Indeed, color intensity accounted for 43% and flavor 32% of the consumers' overall liking. Pack size and label type are taken into account by the consumer to a lesser extent.

Abdulla et al (2011) revealed that the soft drink products are one of the main popular beverages that easily available in today's market. Somehow, it is quite ambiguous to reason out what factors influenced the popularity of the products. The results showed that the consumers' preferences were characterized by four factors such as branding, validation and price, packaging and taste.

Shukla (2012) pointed out that, consumer habits have changed drastically. They are looking for healthier options and nutritional value in the food they buy today. But it is not just the health factor that has led to the growth spurt. Cola sales fell dramatically after the pesticide controversy and this seems to have benefited the fruit beverage industry. Soft carbonated drinks grew by 17% in 2002 but fell by 15% in 2003. Most of the reasons have resulted in the increased in-home consumption of juices which has gone up from 30% three years ago to almost 80% to date. Consumers perceive this as the next best thing to having a fresh fruit. Convenience is no longer the selling point, the natural taste and the essence matters. Growing health consciousness among the Indian young population has brought about a revolution in the Indian health drink market. It is witnessed that cola sales have fallen dramatically due to rising health concerns and this

seems to have benefited the county's non-carbonated drinks market such as energy drinks and juices. In recent years, India has been observing a sweeping shift in consumption of non- alcoholic drinks such as energy drinks and juices. The growing middle class, rising urbanization and increase in purchasing parity are some of the primary reasons, prompt this change. Furthermore, rising health consciousness among the masses has increased the popularity of these non- alcoholic drinks.

2.3 Consumer Awareness about the Different Brands of Beverages

According to the paper of Abdul et al (2012), on "consumer awareness and consumption pattern of food products", which aimed to investigate the degree of brand awareness of various food products in relation to background and education of the household, there is a low degree of brand awareness in rural areas, whereas there is a moderate degree of brand awareness in urban India. The highly educated rural and urban respondents have a high degree of brand awareness of many food products, and the less educated rural and urban respondents have a low degree of brand awareness of many food products. People who watch TV are more aware of their preferred cola as compared to other medium of advertising. Persuasive advertising is also an important factor in choosing the brands.

Stephen (1993) stated that, despite the importance of brand awareness in brand choice, consumer researchers have paid little attention to developing an understanding of awareness as a construct. Focusing on brand awareness in memory-based situations (i.e., where the brands must be brought to mind), this paper reports on a qualitative research project that explores how brands come to mind in a variety of choice situations. The analysis of brand evocation clearly showed an influence of cues on evoked set formation. The results have a number of interesting implications for marketers. First, the measurement of brand recall in response to a product category cue tends to ignore the significant differences in evocation across situations and across benefits. Second, the consideration of brands (and product categories) appears to be potentially high if communication strategies take the cues that facilitate retrieval of the marketer's brand into account. Finally, and more subtly, a marketer could identify cues that are salient in the choice situations in order to link the brand to those cues in marketing communications. Hence, given that the probability of brand choice is likely to increase as a function of the increase in the probability of evocation, this notion suggests a perspective on brand equity that is derived from brand awareness.

Cheng et al (2009) aimed to discuss how the attributes of Chinese tea beverage brands influence consumer evaluations of brand positioning and the differences and competition among brands in his study. A perceptual map, developed using probabilistic discriminates analysis algorithms depicts the relative position of each brand and illustrates their attractive properties. This statistical technique can enhance managers' ability to identify promising brand positions and enhance the overall brand

design process. The study found that Chinese tea beverage brands pursue various goals, such as quenching thirst, attractive advertising, or reliable quality, to develop their positions. Brand positioning implies that consumers remember particular information conveyed by the brand. The study illustrates consumers' brand awareness attributes, potential market demand, and brand competition conditions. The study provides a useful source of information for managers, who should introduce brands to the market carefully and deliberately and choose a position that is both appealing and sustainable over time. The study provides a unique method to understand the current market structure and determines a target brand and its best competitive position.

CHAPTER THREE

Methodology

3.1 Description of the Study Areas

3.1.1 Kandy District

Kandy is a major city, located in the Central Province of Sri Lanka. It is the second largest city in the country after Colombo. It was the capital of the last native kingdom of Sri Lanka. The city lies in the midst of hills in the Kandy plateau, which crosses an area of tropical plantations, mainly tea. The city of Kandy lies at an elevation of 465 meters (1,526 ft) above sea level. The population density (persons per sq.km) in Kandy district was recorded as 755. Total population was stated as 1,447,000 and it represents 70% Sinhalese, 9% Sri Lankan Tamil, 5% Indian Tamil, 14% Sri Lankan Moor and 2% others (www.statistics.gov.lk/CBS Report, 2011).

Table 3.1: Kandy District

Urban	Semi-urban	Rural
Kandy	Pasbage Korale Pathadumbara Udawalatha Yatinuwara	Akurana Delthota Doluwa Ganga Ihala Korale Harispattuwa Hatharaliyadda Kundasale Medadumbara Minipe Panvila Pathahewaheta Poojapitiya Thumpane Udadumbara Udunuwara

There is one Municipal Council, four urban councils and fifteen Pradeshiya sabas in Kandy district. We considered municipal council as urban area, urban councils as semi-urban areas and pradeshiya saba as rural areas. We have purposively selected Kandy as an urban area, due to availability of one urban area and randomly selected Pathadumbara as a semi-urban area. Among rural areas, we randomly selected Kundasale as a rural area.

source: www.statistics.gov.lk

3.1.2 Hambantota District

Hambantota District is located on the Southeastern coast of Sri Lanka, in the Southern Province. It has an area of 2,593 km² and a very dry climate. The district capital is Hambantota town; the administrative headquarters as well as the center of salt production are located there. Hambantota District has a population of 576,000 of whom 96% are considered rural residents. Among the total population 97% are Sinhalese, 1% are Sri Lankan Moor, 1% is both Sri Lankan and Indian Tamils and 1% is Sri Lankan Malay. The population density (persons per sq.km) in Hambantota district was recorded as 231 (www.statistics.gov.lk/CBSL Report, 2011).

Table 3.2: Hambantota District

Urban	Semi-urban	Rural	
Hambantota	Tangalle	Ambalantota	There is one Municipal Council, one urban council and ten Pradeshiya sabas in Hambantota district. We considered municipal council as urban area, urban councils as semi-urban areas and pradeshiya saba as rural areas. We have purposively selected Hambantota as an urban area, due to availability of one urban area and Tangalle as a semi-urban area. Among rural areas, we randomly selected Ambalantota as a rural area.
		Angunakolapelessa	
		Beliatta	
		Katuwana	
		Lunugamwehera	
		Okewela	
		Sooriyawewa	
		Thissamaharama	
		Walasmulla	
		Weeraketiya	

www.statistics.gov.lk

3.1.3 Anuradhapura District

Anuradhapura is a major city in Sri Lanka. It is the capital city of North Central Province, Sri Lanka and the capital of Anuradhapura District. Anuradhapura is one of the ancient capitals of Sri Lanka, famous for its well-preserved ruins of ancient Sri Lankan civilization. Total population was stated as 840,000 and it represents 91% Sinhalese, 2% Sri Lankan Tamil, and 7% Sri Lankan Moor. The population density (persons per sq.km) in Anuradhapura district was recorded as 126 (www.statistics.gov.lk/CBSL Report, 2011).

Table 3.3: Anuradhapura District

Urban	Semi-urban	Rural
Anuradhapura	-	Galnewa Galenbindunuwewa Horowpathana Ipologama Kahatagasdigiliya Kebithigollewa Kekirawa Mahavilachchiya Madawachchiya Mihinthale Nachchdoowa Nochchiyagama Nuwaragam Palatha Central Nuwaragampalatha East Padaviya Palagala Palugaswewa Rajanganaya Rambewa Thalawa Thambuttegama Thirappane

There is one Municipal Council, and twenty two Pradeshiya sabas in Anuradhapura district and no semi-urban council. We considered municipal council as urban area, urban councils as semi-urban areas and pradeshiya saba as rural areas. We have purposively selected Anuradhapura as an urban area, due to availability of one urban area. Among rural areas, we selected purposively Nuwaragam Palatha Central as a semi-urban area due to no urban councils in Anuradhapura district. Further we randomly selected Thambuttegama as a rural area.

www.statistics.gov.lk

3.1.4 Gampaha District

Gampaha is a district in the Western Province in Sri Lanka. Its area is 1,386.6 km². Gampaha district was declared as a new administrative district, separated from Colombo District in 1978. Gampaha district is bordered by Kurunegala and Puttalam districts from north, Kegalle District from east, Colombo District from south and by the Indian Ocean from west. The exact margins of the district are Maha oya river from North, Kelani river from south and 1000 ft contour line from east. Gampaha district consists of 13 electorate divisions, including 2 municipal councils, 5 urban councils and 6 Pradeshiya Sabas. Total population was stated as 2,191,000 and it represents 91% Sinhalese, 3% Sri Lankan Tamil, 4% Sri Lankan Moor, 1% Sri Lankan Malay and 1% others. The population density (persons per sq.km) in Gampaha district was recorded as 1634 (www.statistics.gov.lk/CBSL Report, 2011).

Table 3.4: Gampaha District

Urban	Semi-urban	Rural
Gampaha	Ja-Ela	Attanagalla
Negambo	Katana	Biyagama
	Kelaniya	Divulapitiya
	Minuwangoda	Dompe
	Wattala	Mahara
		Mirigama

There are two Municipal Councils, and five urban councils and six Pradeshiya sabas in Gampaha district. We considered municipal council as urban area, urban councils as semi-urban areas and pradeshiya saba as rural areas. We have randomly selected Gampaha as an urban area, Minuwangoda as a semi-urban area and Divulapitiya as a rural area.

www.statistics.gov.lk

3.2 Sampling Design

Primary and secondary data were collected. The study was conducted in the four locations in Gampaha, Anuradhapura, Hambantota, and Kandy where government has planned to establish the fruit processing factories. Within each district 1 urban, 1 semi urban and 1 rural DS divisions were selected randomly and within each DS division 50 respondents were selected totaling 150 respondents from each district. Based on the resources and time, the sample size was decided as 600 people between ages 15-50 but the study targeted more people in age group of 21-35 and the samples were selected from different population segments. This research has used convenience sampling to select the sample in this study and also tried to get an adequate ratio of men and women in the samples. The main group targeted was the younger age group as they are more conscious and aware about the brand. Also this research tried to focus more on the students and young professionals as they would be more aware about the beverages. Also we tried to focus more on those interested in trying out new products and were more informed. Buyers who have been consuming soft drinks were better able to answer the questions regarding the influencing factors and the reasons for their consumption and purchase. Within the selected four districts and three clusters from each district, Simple random sampling was used in this study. This study population was divided mainly into five samples as follows.

Sample1: Students

Sample2: Employees

Sample3: Businessmen/women

Sample4: People engaged in agricultural activities

Sample5: Housewives

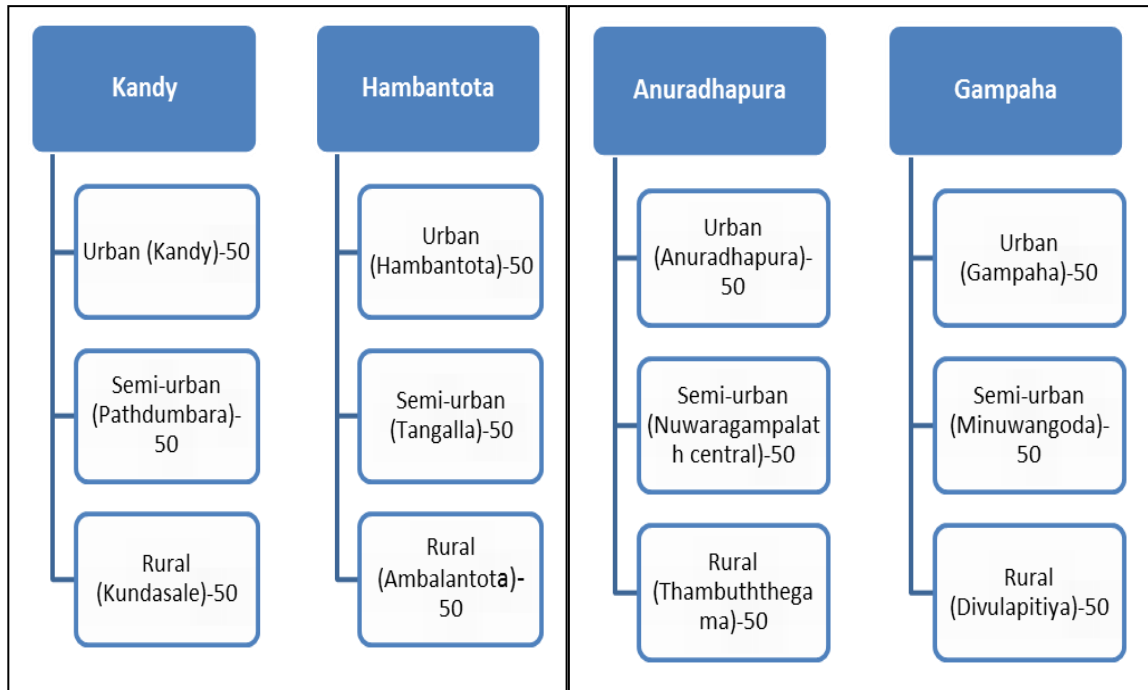


Figure 3.1: Sample Distribution

3.3 Collection of Data

Research was based on two sources,

- 1) PRIMARY DATA: Primary data required for the study were collected from the respondents by personal interview method using well-structured and pre-tested questionnaires.
- 2) SECONDARY DATA: The secondary data on location, demography and other details about the study areas were collected from the relevant sources and consumer surveys done by the Department of Census and Statistics. Other secondary sources consisting different literatures such as books, articles, internet and websites were also referred.

3.4 Analytical Tools and Techniques Employed

The data was analyzed using SPSS and the tests were performed to ascertain the factors influencing the consumer decision when buying fruit drinks and carbonated drinks. The 600 consumers were divided into three groups as rural, urban and semi-urban. Their preferences for fruit juice and carbonated drinks and cross relation between variables involved were examined. In this study the preference defined as the most purchased

drink in general which consumers like to drink. To measure it the study used yes/no questions about just asking the respondent what are they prefer to buy. The differences between the consumers' purchases of fruit drink and carbonated drink as well as the significance of the relationship between variables were determined in a chi-square test. We also conducted correlation tests to find out the various reasons for purchasing any particular brand of fruit drink and carbonated drinks

CHAPTER FOUR

Overview of the Beverage Industry

4.1 Introduction of Beverage

When considering the global beverage industries following issues are very important. In 2009, the global sales of beverages industry were \$ 1 581.7 billion, with a forecast sales value of \$ 1 775. 3 in 2014. In 2009, 48.2% of the markets share belonged to carbonated soft drinks, 29.2% to bottled water, 12.4% to fruit beverages, and the rest to alternative beverages. Consumers were reducing their consumption of carbonated soft drinks, with a growth of 2- 3% in 2009. Consumer preferences have shifted. The global growth of alternative beverages grew from 2005 to 2009 from \$ 27.7 billion to \$ 40.2 billion, with a projected value of \$ 53, 3 in 2014. Of the alternative beverage market, the USA has 42.3 % of the share, Asia- Pacific has 31.5 %, and Europe has 22.2 % of the share. In the US, sports drinks accounted for almost 60% of alternative beverages sales, while vitamin- enriched drinks and energy drinks accounted for about 23% and 18% of 2009 alternative beverage sales. Saturation rate for all types of beverages was high in developed countries. Market maturity and poor economic conditions caused the US beverage industry to decline by 2. 3 % in 2008 and by 3.1 % in 2009. The entering of new geographic areas, the steady growth of the purchasing power of consumers in developing countries, and the development of new types of beverages continue to create a demand for beverages. Industry analysts believe that carbonated soft drinks will continue to remain the most consumed beverage in the US for some time, but annual sales will continue to decline as consumers developed preferences for bottled water, sports drinks, fruit juices, ready-to-drink tea (San, 2011).

The beverage sector represents one of the most important sectors in the food industry. The term beverage can be defined as any potable liquid, especially one other than water, as tea, coffee, beer or milk. It can also be defined as any one of various liquids for drinking, usually excluding water. A drink or beverage is a liquid specially prepared for human consumption. In addition to basic needs, beverages form part of the culture of human society or any liquid suitable for drinking. There are so many different types of beverages and it can be classified as shown in figure 4.1. In this study we focus only the non- alcoholic beverages and among the non-alcoholic beverages, we consider only the carbonated drinks and fruit drinks.

4.1.1 Non-alcoholic Beverages (Soft Drinks)

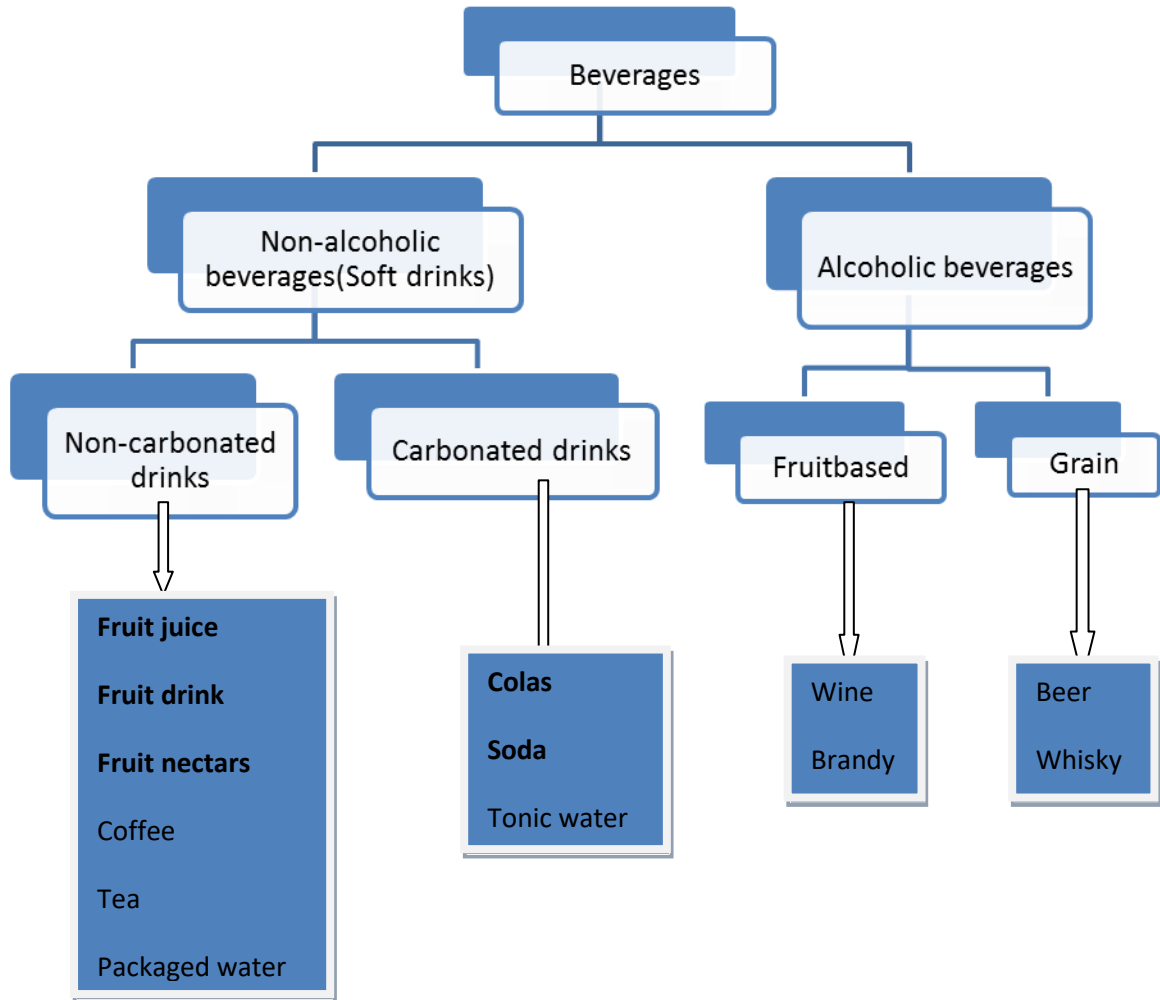
Soft drinks are a common component of the diet in many parts of the world today. Global soft drinks report (2008) indicated that a total of 552 billion liters of soft drinks were consumed in 2007, which is equivalent to 82.5 liters per person and carbonated

soft drinks claimed 36.8% of the soft drink market. According to Naska et al (2010), the availability of soft drinks in European households is steadily and significantly increasing particularly among the low socio-economic groups. Similar trends have been observed in developing countries. India is experiencing an increase in the consumption of sugar sweetened carbonated drinks while a recent report indicates that Sri Lankans have consumed 62 million liters of carbonated soft drinks in 2009. A soft drink is a non-alcoholic beverage typically containing water, often carbonated water, and a flavoring agent. Many of these beverages are sweetened by the addition of sugar or high fructose. They may also contain ingredients such as caffeine and fruit juice. They are called “soft” in contrast to “hard drinks” that is alcoholic beverages. Small amounts of alcohol may be present in soft drinks, but the alcohol content generally must be less than 0.5% of the total volume if the drink is to be considered non- alcoholic. Soft drinks usually served chilled or at room temperature, are rarely heated, and generally do not include milk or other dairy beverages. Beverages that are typically not considered soft drinks include hot chocolate, hot tea, coffee, and milkshake.

Tracing the history of soft drinks, it goes back to the time when mineral water was found in natural springs. As per the general belief during that time, natural spring was considered healthy for life. In fact, people believed that just by bathing in the springs, one could be cured of many diseases. The reasoning also instigated them to drink the water.

Among the earliest soft drinks were sherbets developed by Arabic chemists and originally served in the medieval Near East. Dandelion and burdock, a naturally carbonated drink made from fermented dandelion and burdock roots, was first made in England in around 1265. The first marketed soft drinks (non- carbonated) in the Western world appeared in the 17th century. They were made from water and lemon juice sweetened with honey.

The soft drink Industry consists of establishments primarily engaged in manufacturing non-alcoholic, carbonated beverages, mineral waters and concentrates and syrups for the manufacture of carbonated beverages. Establishments primarily engaging in manufacturing fruit juices and non-carbonated fruit drinks are classified in canned and preserved fruit and vegetable industry. The ready-to-drink fruit based beverages segment is growing all over the world due to consumer preference for healthier beverages. Global consumption of fruit beverages will be increased further and consumers want to enjoy beverages that not only quench thirst but also offer innovation, health, convenience and some nutritional value (Adbdullah and Cheng, 2001).



Source: (Sivasomasekhar, 2010)

Figure 4.1: Types of Beverages

The manufacturing of soft drinks began in the 1830s. However, the evolution of soft drinks took place over a much longer time period. The origin of soft drinks was more than 2000 years ago when Hippocrates the “father of medicine” first suspected that mineral waters could be beneficial to our well-being. The soft drink industry was a seasonal business in the early days, operating primarily during the summer months. Sales were limited only to outlets for the new carbonated beverages, and by the consumer’s restricted mobility. For many years, pharmacists were the driving force behind the refinement of soft drinks and many of the flavors and combinations. Gradually, demand grew for the soft drinks to be consumed at home. Bottling the product proved difficult at first since pressure from the carbon dioxide forced corks right

out of the bottles. Clearly, if soft drinks were ever to be sold for consumption beyond the corner pharmacy, they would have to be away to keep them corked. Inventors worked for years to develop a solution patenting some 1,500 different corks and lids for soft drink bottles (Sivasomasekhar, 2010).

4.1.1.1 Carbonated Drinks

Many carbonated soft drinks are optionally available in versions sweetened with sugars or with non-caloric sweeteners. Statistics indicate that, there will always be a market for carbonated soft drinks, because these are popular and command a global market share of about 50% of all beverages. Carbonated soft drinks are a thirst quencher and consumers are known to purchase them mostly out of impulse. This requires the product to be widely available, especially in its chilled form, in places where impulse-driven buyers could readily purchase them. It is well documented that the consumption of carbonated drinks has detrimental effects on oral health. In addition to dental caries, the consumption of carbonated beverages is considered as a risk factor for dental erosion as well. The high sugar amount in soft drinks is responsible for dental caries while the erosive potential of a soft drink is related to its pH, acidity and the mineral content. However, despite the fact that the adverse health implications of soft drink consumption are now well known and the consumption of soft drinks is high in Sri Lanka, there is no information about the properties of soft drinks available in the Sri Lankan market. Knowledge of the properties of soft drinks will be helpful in educating the public about the adverse effects related to their consumption (Ratnayake et al, 2011). Now-a-days carbonated soft drinks have become an integral part in lifestyle of the people in the society. There are a number of carbonated drinks brands available in the market. In those brands, some brands are very popular locally as well as globally. The market of Sri Lankan beverage is governed by reputed multinational companies to local medium to large scale companies. There is a good demand for beverages in Sri Lanka. Almost all the world famous beverages could be found in leading retail outlets and in the medium to large scale hotels across the country ([www.vsrilankan.com-Business report link](http://www.vsrilankan.com-Business-report-link)). Coca cola, Pepsi, Mirinda, Cream Soda, Sprite, Necto, Ginger Beer, Fanta, 7-Up are some of the most preferred carbonated drinks and brands of the Sri Lankan consumers . It is very hard to find people who have never consumed any brand of soft drink. Everyone in the society prefers a particular brand.

Ceylon Cold Stores Limited (CCS), also known as Elephant House has established itself as the leader in Sri Lanka's carbonated soft drinks market, gaining a 47% share and outperforming leading multinationals such as Coca-Cola, Pepsi and other brands in a highly competitive business environment. Statistics indicate that there will always be a market for carbonated soft drinks, because these are popular and command a global market share of about 50% of all beverages. Sri Lanka's economy has boomed significantly, averaging over 7% in the first half of 2006. GDP per capita increased to US \$ 1197 in 2005, compared to US \$ 1030 in the previous year (Central Bank of Sri Lanka,

2005). The income trends of consumers indicate that more people can now afford to purchase and consume soft drinks, which augur well for market growth. However, rising inflation has reduced the disposable incomes of consumers significantly, impacting on the market growth.

4.1.1.2 Fruit Drinks

The global market for fruit and vegetable juices is forecast to reach 64.46 billion liters by the year 2015, encouraged by steadily growing concerns on health and nutrition. Fruit and vegetable juices continue to remain as one of the most competitive segments in the beverage industry competing strongly against RTD drinks, sports & energy drinks and bottled water. Despite being hit by the global recession, the market will pick up pace over the near term, powered by gains made from natural juices, fortified juices and juices made with healthier ingredients (San, 2011). A wide range of drinks which contains, as the base material, either pulped fruit or juice can be manufactured. Many are consumed as a pure fruit juice without the addition of other ingredients, whereas others are diluted with sugar syrup. For convenience fruit drinks can be divided into two groups.

1. Those that are consumed immediately after being opened
2. Those that are consumed in little quantities from bottles which are stored between uses

The former group does not need any preservative if processed and packaged properly. However, the latter must contain a certain amount of permitted preservatives to have a long shelf-life after being opened.

- Juices- These are pure fruit juice with nothing added
- Nectars-These normally contain 30% fruit solids and are consumed immediately after being opened
- Squashes-These normally contain at least 25% fruit pulp mixed with sugar syrup. They are diluted to taste with water and may contain preservatives
- Cordials-These are crystal-clear squashes
- Syrups-These are concentrated juices which are clear. They normally contain high sugar content (www.fao.org/WAIR doc.)

The fruit juice market competes with other beverage markets such as ready-to-drink, bottled water, herbal drinks, energy drinks and sports drinks. Juice consumption recorded strong sales in developed and developing markets in the face of the economic

recession. Demand for juices, and fruit juices in particular, continues to rise mainly due to increasing consumer awareness of the health benefits of a balanced diet. Orange juice represents the leading market segment, accounting for more than 35% of global fresh juice sales.

The global fruit and juice market is expected to continue recording a strong growth through 2015. Growth is being driven by an emphasis on healthy living, with consumers increasingly being aware of the importance of fruits and vegetables in their diets as a preventative measure against health threats, such as certain types of cancers.

Especially in the developed countries, the consumers choose fruit juice for their vitamin, liquid, and mineral requirements for a long time. The development of healthy life awareness and the increased trend of the need of high quality of life and the easy consumption of fruit juice, play a major role in fruit juice consumption. It is emphasized that the fruit juice production as an industrial product in the sixties increased in parallel to the world in the 2000s as a result of the increased awareness of healthy life all over the world. As a result of the development in the healthy nutritional life trend in parallel with the purchasing power of the consumers, it is observed that the companies are turning to entirely new products and adding a new tastefulness to the markets in the EU markets.

Drinks containing 100% fruit juice contain no added sugar or preservatives. Juice drinks, however, contain less fruit, and often have other ingredients added such as water, flavors and sweeteners. In both cases, the exact amount of each is printed on the label above the nutrition facts panel. Fruit juices may have preservatives added, however if present, packaging will then need to be properly labelled for consumers' information. While the amount of vitamins or health benefits may vary depending on the beverage, 100% juice and juice drinks all can be enjoyed for their good taste and refreshment. The Food Standards Code allows manufactures to add up to 4% sugar to fruit juice in order to ensure consistency in taste and sweetness even with seasonal variations in the natural sugar levels of fruit. However, when sugar is added, the juice cannot and will not, be labelled as 100% juice. Similarly, the juice that has added preservatives cannot be labelled as 100% juice. Water-based beverages that are made with added fruit juice may be still or carbonated. These drinks may be labelled as "fruit drinks". The Food Standards Code specifies that a minimum fruit amount of fruit must be present before a manufacturer calling the product a fruit drink. The Food Standards Code specifies that fruit drinks must contain not less than 50 ml/l of fruit, except in the case of passion fruit drink which must contain not less than 35 ml/l of passion fruit (Baghurst, 2003).

There are many types of juice made from fresh fruits. Unlike the canned juices with added preservatives, these juices do not contain added sugar and colors which are detrimental to health. Fruit juice lovers have a plethora of juices to choose from juices that are made from different types of fruits including apple, orange, cranberry, mango,

pineapple, grapes, banana, strawberry, watermelon and so forth. Combinations of different fruits are also used to make delicious juices. Fruit juice is an essential source of vitamin c, vitamin B, iron and minerals. Intake of fresh juices has innumerable benefits. It improves the skin and promotes better growth of hair. These juices can be digested easily and proven to be a direct supplement.

In the developed markets of Western Europe the UK will lead the growth of the 100% pure fruit juices category, while a significant rise in demand for fruit drinks from emerging markets such as China and Russia will drive the market as a whole. The focus on preventive healthcare will increase the demand for super fruit juices while safety and ethical concerns will drive innovation and NPP in organic and 100% natural juices (San, 2011).

The global market for fruit juices was valued at approximately \$79bn in 2009 and this market is projected to grow to reach a value of \$93bn in 2014. The juice sector accounted for almost one third of all new product launches across major soft drinks categories in 2009, outperforming the functional drinks category by 11% points. Health and well-being continued to be a key growth driver for innovation in functional juice formulations primarily owing to the rising consumer focus on preventive healthcare (San, 2011).

There is a growing domestic and overseas market for tropical fruits and fruit based products. Ready- to- drink fruit nectar category has a great potential in the local market. The global fruit juice market is booming, as the current consumption reaches 29.3 million liters in the UK and 42.8 million in the U.S.A. Fruit juice was a key growth story of the second half of the decade driven by China and fruit juice made important niche gains reflecting a huge absolute growth in China. Fruit juice market is rapidly growing and developing and is a key area for new product ideas (Beverage Marketing Corporations, Report, 2009). Fruit juice are winning share-of-throat ground from carbonates, which have underperformed in key niche markets, especially in Vietnam, South Korea, Philippines, Malaysia, and Indonesia. This is expected to continue with a forecast 7.5billion liters new consumption of fruit juice and US\$ 10 billion new spending in 2013, four times higher than carbonates (The Global Beverage Industry Monthly Report, April, 2010).

The Australian New Zealand Food Standards Code (FSC) sets mandatory requirements for the fruit juices. These standards presented to ensure that consumers can have every assurance in the safety and quality of the juice they purchase. The FSC sets limits for additives, when they are used, ensuring that the product is not contaminated by pesticides or any other pollutant. Labelling requirements also ensure that the consumer can purchase the juice of their choice, being confident that the container clearly states the ingredients and whether the juice is freshly squeezed or made from concentrate. All

beverages produced by the members of the Australian Beverages Council must comply with the strict regulations set by Food Standards Australia New Zealand (Landon, 2011). The global market for fruit and vegetable juices experienced slow growth in the years 2008 and 2009 with demand declining in major markets of North America and Europe. Premium products were the worst hit as people looked for value during times of limited finances. The category of fruit drinks also suffered with decreased sales, not sparing even the highly popular orange fruit juice market. The category of orange juice accounting for over 35% of fresh juice sales worldwide, witnessed a marginal dip in sales during the recession period. In Europe, the clear preference for low priced products, vis-à-vis, expensive branded juice lead to heavy leaning towards the economically priced private label products. However, decline in demand for fruit juice drinks was largely offset by increased sales in the natural juices category as well as demand increase in the rapidly developing Asian markets. Increase in fruit and vegetable juice consumption in the rapidly advancing Asian countries, including China and India is forecast to steer the market through the declines caused by the recession. Demand for fruit juices and smoothies remained more or less immune to the trend, recording increased amounts of spending, particularly in the UK.

Europe represents the single largest regional market, as stated by the new research Report on Fruits and Vegetable Juices in 2012. The US follows as the second largest market globally. Fruit Juices constitute the largest product category, amassing a gigantic share of the global market, strengthened by sustained demand from chilled ready-to-serve juice segment. The market is also forecast to race ahead at the overall highest compounded growth rate through 2015.

The fruit and vegetable juice market is highly competitive and fragmented in nature with scores of medium and large player competing fiercely for a larger share of the pie. Private label manufacturers hold a large share of the market. Key market participants profiled in the report include Del Monte Foods, Cadbury Plc, Mott's LLP, Minute Maid Company, Odwalla Inc, Nestle SA, Ocean Spray Cranberries, Tropicana Products Inc, and Welch Foods, Inc.

The research report titled "Fruit and Vegetable Juices: A Global Strategic Business Report" announced by Global Industry Analysts, Inc., provides a comprehensive review of market trends and issues, industry overview, market segmentation, product introductions, recent industry activity and profiles of market players worldwide. Analysis and overview is provided for major geographic markets such as US, Canada, Japan, Europe, Asia-Pacific, Latin America and the Middle East. Market analyse are provided in terms of Volume (liters) for product segment. Fruit Juices (Frozen Concentrates, Chilled Ready- to- Serve Juices and Shelf Stable Juices) and Vegetable Juices (San, 2011).

4.2 Beverage Industry of Sri Lanka

Sri Lanka's beverage industry is growing over 10% and the trend continues to expand. According to the chairman of the newly formed Beverage Association of Sri Lanka, the liberation of North and East has provided them a new market. The total value of the industry is around Rs.25billion and over 100,000 are employed. Leading beverage companies in Sri Lanka have come together for the first time in the history of the sector to form the Beverage Association of Sri Lanka (BAOSL). The association has been formed with the aim of providing a vital platform for the sector, whilst championing the contribution of its members towards the country's economic sustainability. The BAOSL currently consists of Ceylon Cold Stores PLC (manufacturer and marketer of Elephant House Beverages), Coca-Cola Beverages Sri Lanka Limited and Varun Beverages Lanka Limited (the manufacturer and marketer of Pepsi Cola beverages). The beverage sector is a valuable employment generator, heavy investor in technology and retail network development and an environmentally conscious entry, it is important to note that the sector has made heavy capital investments in machinery and technology over the decades. The industry is a key contributor to the national exchequer and thereby to the economic development of the country. The beverage industry provides employment to nearly 1,500 individuals who are directly employed by these companies whilst simultaneously creating indirect employment for 3000 more. Moreover, member companies are responsible for providing trading opportunities to over 75,000 retailers. The BAOSL will engage with stakeholders of the sector and bring to light the contribution made by the industry, for example in ensuring proper storage and quality of beverages, through the provision of aids such as coolers and racks. A first in the industry, the association hopes to bring in more companies engaging in the non-alcoholic beverage business as members in the future. The companies while continuing competition with each other in the market will work in unity to provide a vital platform for the sector to promote its future growth. The chairman of BAOSL stated that the body was looking at facilitating the framing, development and dissemination of best practices in order to continue to produce safe and healthy non-alcoholic beverages to consumers, while proactively interacting with the government and regulatory agencies in making policies that could strengthen the industry. Even though, there are some 20 to 30 other non-alcoholic producers and marketers within the industry, the growth between 2011 and 2012 is 10%. Essentially being an industry for local consumers, the import of non-alcoholic beverages is less than 5%. The body of BAOSL wants to bring transparency and self-regulation into the field so that the end consumer will be benefited (www.dailynews.lk).

Sri Lankans total soft drinks market is to be worth around 80 million dollars, with 100 million liters being consumed annually and the fruit juice industry which was worth 12 million dollars, accounted for about one fourth of the country's total soft drink sales each year. Fruit juice is a growing beverage category in Sri Lanka driven by people's desire to lead a healthy life. Coca-cola, one of the world biggest soft drink makers, is

investing four million dollars to set up a fruit juice plant in Sri Lanka and it plans to gain a toehold in the growing “wellness” market where health conscious Sri Lankans are seeking natural foods. Fizzy drink giant Coca-Cola tried to corner Sri Lanka’s market by offering fruit juice to locals looking for natural drinks over carbonated soft drinks (www.Lanka Business Online.com)

CHAPTER FIVE

Results and Discussion

5.1 Relationship between the Demographic Variables and the Preference of Fruit Drinks and Carbonated Drinks

The factors that affect the consumption and the buying decisions are also the factors related to the consumer. The socio-demographic properties have been able to have a certain role in the demand for food and their buying behaviors for the product. Therefore the relationship with consumers' demographic variables such as, gender, age, education, occupation, with their preference for carbonated drinks and fruit drinks in all the four districts as a whole was evaluated in the following table 5.1. The total number of samples selected was 600 consumers: 150 from Kandy district, 150 from Hambantota, 150 from Anuradhapura and the remaining 150 were selected from the Gampaha district.

When considering the age distribution, the highest percentage of consumers who preferred carbonated drinks, belonged to the age group of 21-25 years. More than 50% of those consumers were in the age group of 15-25 years. However, a significant portion of consumers (75%) who preferred fruit drinks belonged to the age group of 26-35 years and 22% belonged to the age group of 15-25 years. It revealed that, teenagers and younger generation preferred carbonated drinks while the young people aged 26-35 years preferred fruit drinks as they are more conscious about the health.

The highest percentage of carbonated drink consumers (50%) were students (School+ University + Vocational training etc.) Meanwhile, the highest percentages of fruit drink consumers were engaged in government sector employment.

Under the gender classification, a higher percentage of carbonated drink consumers were males in all the four districts (58%) and in contrast, a higher percentage of fruit drink consumers were females (64%). It revealed that female consumers are more concerned about the health than the thirst and the male consumers are much concerned about the immediate requirement of putting off the thirst.

The distribution of the sample was based on educational profile, indicated that the majority of the consumers in both preferred drink varieties were graduates or diploma holders. It represented 35% of the total sample size.

Table 5.1: Demographic Variables and the Preference of Fruit Drinks and Carbonated Drinks (Cross Tabulation)

Variables	Carbonated drinks (%)N=137	Fruit drinks (%) N=463	Total (%) N=600
Age			
15-20	20	8	11
21-25	37	14	20
26-30	17	40	35
31-35	14	25	23
36-40	8	7	7
41-45	3	4	3
46-50	1	2	1
Total	100	100	100
Occupation			
**Students	50	16	23
Housewives	1	1	1
Agriculture	1	1	1
Government sector	17	55	47
Private sector	9	8	9
Self-employment	4	11	10
Skilled jobs	6	5	5
Business	12	3	4
Total	100	100	100
Gender			
Male	58	36	41
Female	42	64	59
Total	100	100	100
Education Level			
Grade1-5	1	-	1
Grade5-10	7	1	3
GCE O/L	28	18	20
GCE A/L	29	28	28
Vocational training	4	4	4
Graduate/Diploma	30	37	35
Post Graduate	1	12	9
Total	100	100	100

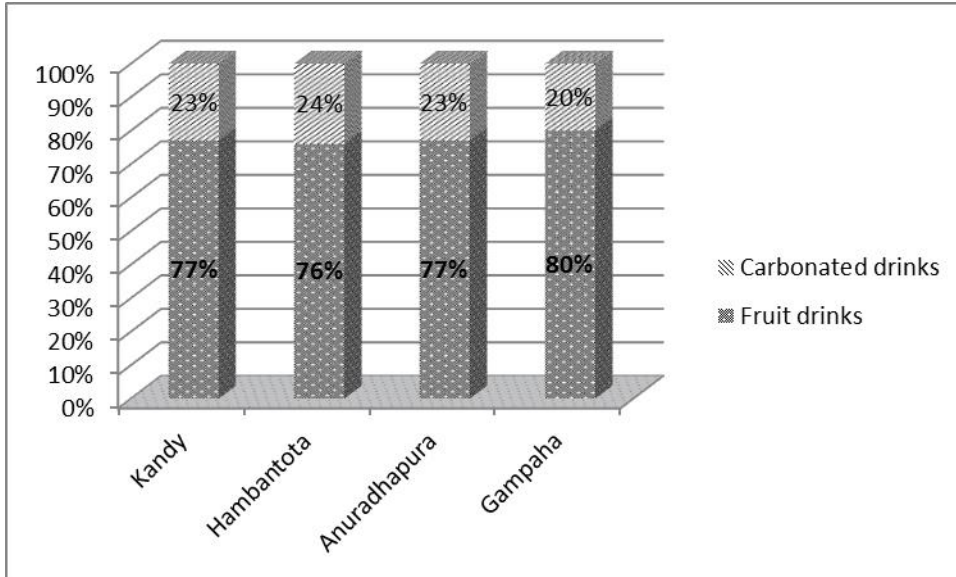
Source: HARTI Survey Data 2013

**School students+ University students+ Vocational training students

5.2 Purchasing Information

5.2.1 Buying Preference

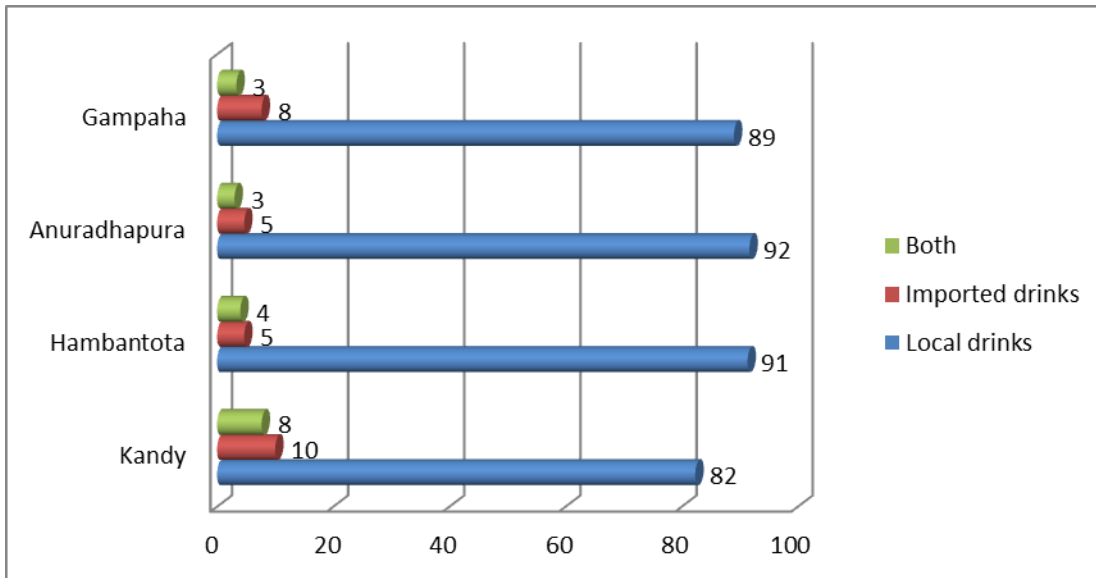
According to the figure 5.1, majority of the respondents in all the four districts were reported that they preferred to buy only fruit drinks. It was 77% consumers in both Kandy and Anuradhapura districts, 76% in Hambantota district and 80% in Gampaha district.



Source: HARTI Survey Data 2013

Figure 5.1: Preference of Beverage

When answering the question that whether they prefer to buy whether imported beverages or local beverages, majority reported that they preferred to buy local beverages (both fruit drinks and carbonated drinks). According to 5.2., 82% of the consumers in Kandy, 91% in Hambantota, 92% in Anuradhapura and 89% in Gampaha reported that they preferred local beverages.



Source: HARTI Survey Data, 2013

Figure 5.2: Preference of Beverage (Local/Imported)

5.2.2 Purpose of Buying Beverages

As shown in table 5.2, more than 50% of the consumers in all the four districts purchased fruit drinks for self-consumption. In Kandy district, 50% of the consumers purchased fruit drinks for the self-consumption, 32% purchased for their family consumption and 8% purchased only for their children. The buying purpose of other three districts was also more or less same compared to the Kandy district. However, more than 75% of the consumers in all the four districts purchased carbonated drinks only for self-consumption. The second rated purpose for their purchasing of carbonated drink was for social and family gatherings.

This situation revealed that though the highest percentage of both fruit drink consumers and carbonated drinks consumers purchased beverage for self-consumption, the percentage of buying purposes for their family consumption and for their children are higher in fruit drink consumers than the carbonated drink consumers. It means fruit drinks are consumed as a family consumption drink while the carbonated drinks used as a drink for special occasions.

Table 5.2: Purpose of Purchasing Drinks

Purpose	Kandy		Hambantota		Anuradhapura		Gampaha	
	Fruit drink	Carbon -ated drink	Fruit drink	Carbon-ated drink	Fruit drink	Carbon -ated drinks	Fruit drink	Carbo-nated drinks
	%	%	%	%	%	%	%	%
Self-consumption	50	80	56	77	53	82	62	88
Only for children	8	2	18	2	20	1	15	0
For family consumption	32	1	13	2	15	1	10	1
For a special occasion	5	15	10	13	8	15	9	10
For serving guests	3	2	20	5	2	1	3	1
Other purposes	2	0	1	1	2	0	1	0
Total	100	100	100	100	100	100	100	100

Source: HARTI Survey Data, 2013

5.2.3 Frequency of Purchase of Fruit Drinks and Carbonated Drinks

Table 5.3 depicts the frequency of purchase of fruit drinks by the sample respondents in all the four districts across different sectors. According to the table, it is revealed that the highest percentage of consumers in the Kandy district (24%) purchased fruit drinks on weekly basis and 20% of the consumers purchased fruit drinks two to three times per week. In the Hambantota district, the highest percentage of consumers (34%) purchased fruit drinks weekly and the second highest (19%) noted that they purchased fruit drinks once a month. The highest percentage of consumers (28%) in the Anuradhapura district also reported that they purchased fruit drinks weekly and 20% reported that they purchased it on requirement. In the Gampaha district, 28% of the consumers purchased fruit drinks on weekly basis, 26% purchased two to three times per week and 21% noted that they purchased fruit drinks once a month. It revealed that most of the respondents in all the four districts purchased their fruit drinks on weekly basis.

When considering the carbonated drinks, the highest percentage of consumers (26%), in the Kandy district purchased carbonated drinks on monthly basis and 21% purchased it two to three times per week. Table 5.4, depicts this situation. In the case of different sectors, a higher percentage of consumers in urban and semi urban areas purchased carbonated drinks once a week while the highest percentage of respondents in rural areas purchased carbonated drinks once a month. The situation in the Hambantota district has shown a great difference against the Kandy district. The highest percentage of consumers (45%) in Hambantota district purchased carbonated drinks when necessary and 13% reported that they purchased carbonated drinks two to three times per week. In the Anuradhapura district, the highest percentage of consumers (36%) purchased carbonated drinks when necessary, which is similar to the Hambantota

district. In the Gampaha district, the highest percentage of consumers (27%) purchased carbonated drinks on monthly basis and 18% purchased once a week. This result revealed that the frequency of purchasing carbonated drinks is higher in Gampaha and Kandy districts than in the Hambantota and Anuradhapura districts. It also revealed that the weekly consumption of carbonated drinks is lower than the weekly consumption of fruit drinks.

Table 5.3: Frequency of Purchase of Fruit Drinks

Frequency	Kandy				Hambantota				Anuradhapura				Gampaha			
	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %
Daily	10	10	2	7	4	14	4	7	6	2	4	4	10	7	11	9
Two to three times per week	13	30	17	20	16	24	13	17	25	23	9	18	23	30	25	26
Weekly	21	13	29	24	45	22	34	34	23	28	33	28	25	25	35	28
Monthly	21	15	15	17	13	16	24	19	14	18	15	16	29	24	9	21
If necessary	18	18	21	19	6	10	11	9	14	20	24	20	5	8	5	6
Rarely	13	5	6	8	14	10	13	12	12	7	13	11	7	2	14	8
Every time feeling thirsty	4	9	10	5	2	4	1	2	6	2	2	3	1	4	1	2

Source: HARTI Survey Data, 2013

(U=Urban, SU=Semi-Urban, R=Rural, T=Total)

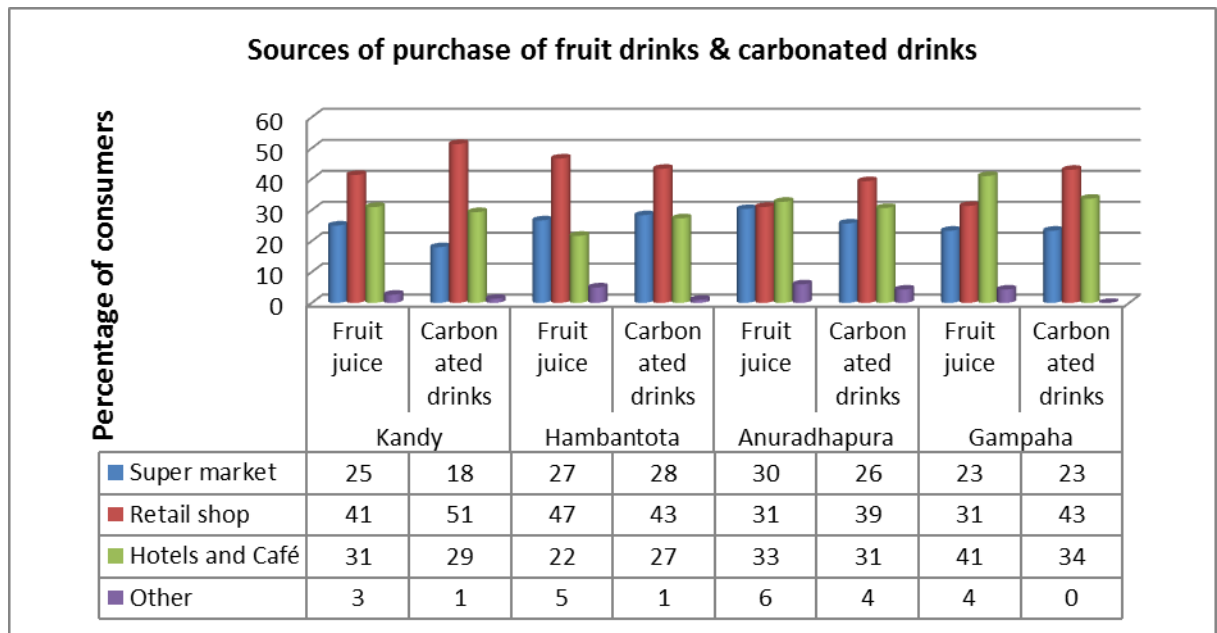
Table 5.4: Frequency of purchase of Carbonated Drinks

Frequency	Kandy				Hambantota				Anuradhapura				Gampaha			
	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %
Daily	6	2	2	3	5	19	-	8	6	3	10	6	8	3	9	7
Two to three times per week	11	28	23	21	14	20	6	13	28	14	18	20	8	27	15	17
Weekly	17	10	26	18	7	8	9	8	11	11	20	14	22	13	18	18
Monthly	29	30	20	26	10	6	9	8	11	9	7	9	38	26	18	27
If necessary	16	17	9	13	52	33	50	45	32	43	33	36	13	3	9	8
Rarely	14	8	11	11	7	8	11	9	6	11	7	8	8	10	24	14
Every time feeling thirsty	7	5	9	8	5	6	15	9	6	9	5	7	3	18	7	9

Source: HARTI Survey Data, 2013

5.2.4 Sources of Purchase of Fruit Drinks and Carbonated Drinks

Sources of purchase of fruit drinks and carbonated drinks are presented in figure 5.3. It was observed that, majority of the respondents in Kandy and Hambantota districts preferred to purchase both fruit drinks and carbonated drinks from retail shops. It is reported that 41% of fruit drink consumers and 51% of the carbonated drink consumers in the Kandy district purchase their beverages from retail shops followed by the hotels and café. In the Hambantota district, 47% of fruit drink consumers and 43% of the carbonated drink consumers preferred to purchase their beverage from retail shops. The situation is somewhat different in the Anuradhapura and Gampaha districts. The highest percentage of fruit drink consumers (33%) purchased fruit drinks from hotels and cafe and the highest percentage (39%) of carbonated drink consumers purchased their drinks from retail shops as same as in Kandy and Hambantota. The same situation was observed in the Gampaha district and the highest percentage (41%) of fruit drink consumers purchased their drinks from hotels and cafe and 31% purchased their carbonated drinks from retail shops.

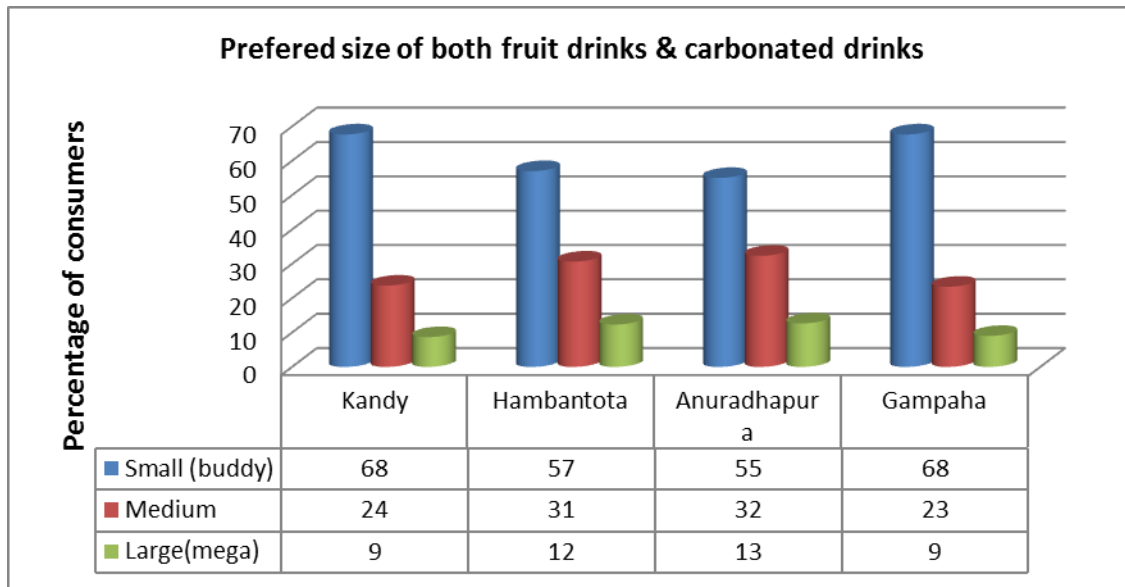


Source: HARTI Survey Data, 2013

Figure 5.3: Sources of Purchase of Fruit Drinks and Carbonated Drinks

5.2.5 Preferred Pack Size of Beverages and Reasons for It

According to the figure 5.4, 68% of the respondents in Kandy district, 57% in Hambantota, 55% in Anuradhapura and 68% of the consumers in the Gampaha district preferred the small sized (buddy) of beverage pack, followed by medium sized pack.



Source: HARTI Survey Data 2013

Figure 5.4: Preferred Size of Both Fruit Drinks and Carbonated Drink

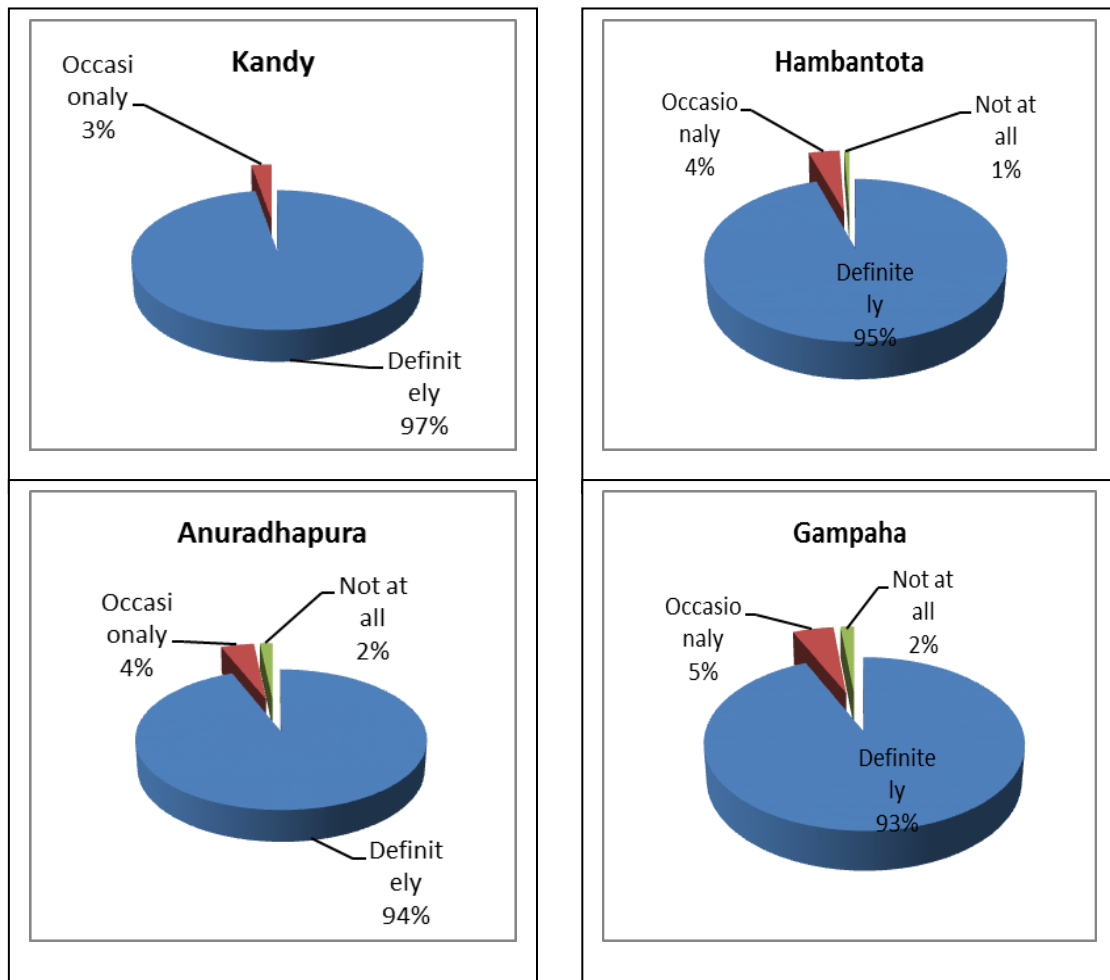
As shown in table 5.5, the main reason for the preference of small size of pack is reported as low price. It is preferred by 74% of consumers in both Kandy and Hambantota districts, 75% in the Anuradhapura district and 76% in the Gampaha district. Portability and convenience of consumption is the second highest important factor for the preference of small sized pack. There was no significant difference observed sector wise in each district.

Table 5.5: Reasons for Preference for Small Sized Pack

Reasons	Kandy (N=150)				Hambantota (N=150)				Anuradhapura (N=150)				Gampaha (N=150)			
	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %
Low price	79	71	68	74	66	76	79	74	77	80	68	75	70	90	68	76
Portability and convenience for consumption	5	15	13	11	20	7	17	15	10	9	15	11	21	3	15	13
Higher availability	10	7	14	10	6	14	7	8	6	10	12	9	9	5	9	7
No special reason	6	5	5	5	8	3	0	4	7	1	5	4	0	2	8	4

Source: HARTI Survey Data, 2013

5.2.6 Labels of Packing Materials of Beverages



Source: HARTI Survey Data, 2013

Figure 5.5: Reading the Labels before Purchasing to Know about the Expiry Date

As shown in figure 5.5, more than 92% of the respondents in all the four districts definitely read the package labels of beverages to know about the expiry date. The percentage of “not reading labels at all” was 1% in Hambantota, 2% in both Anuradhapura and Gampaha while it was nil in the Kandy district. It is revealed that, majority of the consumers are concerned over the healthiness of the beverage before purchasing it.

But according to the table 5.6, around 87% of the consumers in Kandy, 93% respondents in Hambantota, 89% in Anuradhapura and 80% in Gampaha were reported that they do not read the labels before purchasing to learn about the ingredients. It is revealed that,

majority of the consumers are not concerned about the ingredients of the beverages. They are concerned only about the expiry date.

Table 5.6: Reading the Labels before Purchasing to Know the Ingredients

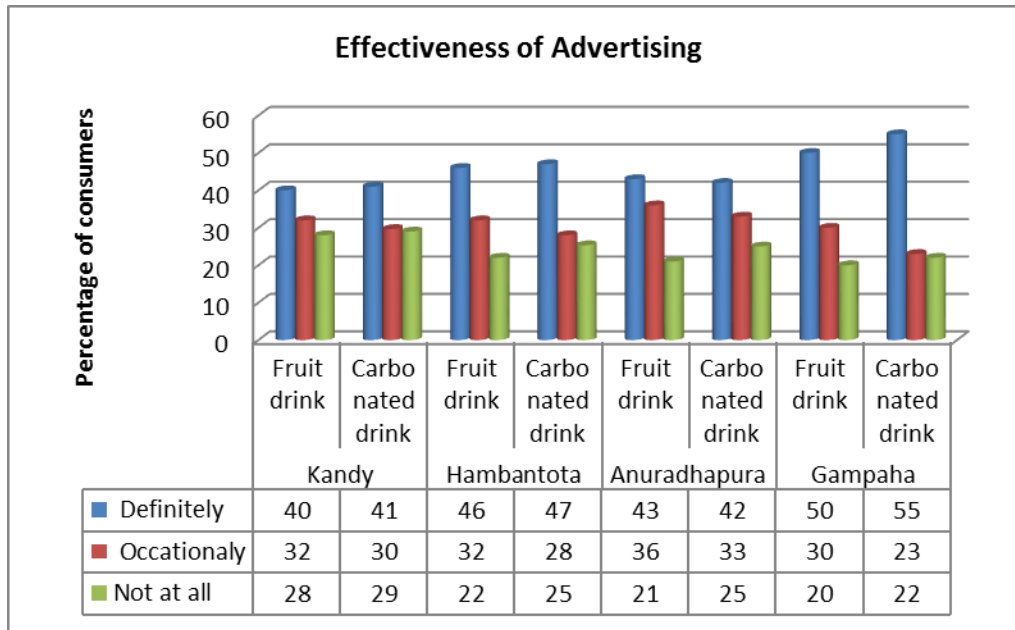
Category	Kandy (N=150)	Hambantota (N=150)	Anuradhapura (N=150)	Gampaha (N=150)
Definitely	3	2	3	5
Occasionally	10	5	8	15
Not at all	87	93	89	80
Total	100	100	100	100

Source: HARTI Survey Data 2013

5.2.7 Effectiveness of Advertisements towards Buying Behavior of Beverages

As shown in figure 5.6, the highest percentage of consumers in all the four districts have reported that the advertising definitely has an impact on the purchasing behavior of both fruit drinks and carbonated drinks. In the Kandy district 40% of the fruit drink consumers, 41% of the carbonated drink consumers have supported that statement. About 46% of the fruit drink consumers and 47% of the carbonated drink consumers reported that advertising has definitely impacted their purchasing behavior. In the Anuradhapura district, 43% of fruit drink respondents and 42% of carbonated drink respondents also reported the same idea and in the Gampaha district it was reported by 50% of fruit drink consumers and 55% of carbonated drink consumers. However, in all the four districts, around 20%-29% of the consumers have noted that advertising did not influence their purchasing behavior at all.

Table 5.7, reveals the most effective medium of advertising. Thus, 89% of the consumers in both Kandy and Hambantota districts, 82% in the Anuradhapura district and 79% in the Gampaha district have reported that the most effective medium of advertising is television. The second and third important mediums are the newspaper and internet respectively.



Source: HARTI Survey Data, 2013

Figure 5.6: Effectiveness of Advertising towards Buying Behavior of Fruit Drinks and Carbonated Drinks

Table 5.7: Most Effective Medium of Advertising

Medium	Kandy				Hambantota				Anuradhapura				Gampaha			
	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %
T.V.	93	82	91	89	85	96	86	89	78	80	88	82	82	80	74	79
Newspapers	7	7	9	8	7		5	4	15	13	5	11	12	13	17	14
Internet	-	6		2	4	-	7	4	2	2	5	3	3	4	5	4
Posters and handouts	-	5		1	4	4	2	3	5	5	2	4	3	3	4	3

Source: HARTI Survey Data, 2013

5.2.8 Major Factors considered by Consumers when Purchasing Beverages

The table 5.8 revealed that, there were seven factors considered by the respondents when purchasing fruit drinks. The highest percentage of consumers in all the four districts, were concerned mostly about health and safety. It was recorded 36% in Kandy, 45% in Hambantota, 53% in Anuradhapura and 47% in Gampaha. The second highest considered factor was the taste. It was regarded by 27% respondents in Kandy, 21% in Hambantota, 17% in Anuradhapura and 19% in Gampaha. When considering the carbonated drinks, the highest percentage of consumers in Kandy district (45%), 56% in Hambantota, 48% in Anuradhapura and 45% in Gampaha reported that they were concerned mostly about the taste. It is depicted in the table 5.9. According to that,

immediacy to put off thirst was the second highest factor and it was recorded 22% in Kandy, 18% in Hambantota, 16% in Anuradhapura and 21% in Gampaha. Price was the next important factor.

Table 5.8: Most Considering Factors which Influence the Purchase of Fruit Drinks

Factors	Kandy				Hambantota				Anuradhapura				Gampaha			
	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %
Health & safety	30	39	30	36	50	52	33	45	45	60	55	53	39	40	62	47
Taste	27	31	22	27	11	28	24	21	19	19	11	17	24	24	9	19
Price	19	11	11	14	5	4	17	15	19	4	16	13	14	13	2	12
Brand name	11	8	9	9	16	10	17	8	2	5	5	4	15	7	15	10
Location and convenience	8	3	17	9	11	2	7	7	9	5	6	7	3	13	3	6
Ingredients	5	8	11	5	7	4	2	4	6	7	7	7	5	3	9	6

Source: HARTI Survey Data, 2013

Table 5.9: Most Considering Factors which Influence the Purchase of Carbonated Drinks

Factors	Kandy				Hambantota				Anuradhapura				Gampaha			
	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %
Taste	49	43	42	45	63	52	52	56	45	55	46	48	36	37	64	45
Immediacy of putting off thirst	20	23	24	22	10	21	24	18	14	12	21	16	22	28	12	21
Price	6	15	15	12	8	18	5	10	12	15	8	12	11	18	6	12
Brand name	11	5	10	9	10	3	8	7	12	12	10	11	20	3	3	9
Location and convenience	11	8	6	8	6	3	5	5	10	3	10	8	8	11	9	9
Appearance	3	6	3	4	3	3	5	4	7	3	5	5	3	3	6	4

Source: HARTI Survey Data 2013

5.3 Consumption Information

5.3.1. Consumer Preference

5.3.1 .1 Reasons for the Preference of Fruit Drinks

Table 5.10: Reasons for Preference of Fruit Drinks

Reasons	Kandy				Hambantota				Anuradhapura				Gampaha			
	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %
As a healthy drink	52	60	63	58	69	65	71	68	58	60	65	61	55	62	68	64
As a tasty drink	43	30	25	33	18	24	20	21	27	28	26	27	31	28	28	29
As an aid to put off thirst and hunger	5	10	12	9	13	11	9	11	15	12	9	12	14	10	4	9

Source: HARTI Survey Data, 2013

When considering the reasons which influence the choice of fruit drinks, three reasons were revealed by the study. As shown in table 5.10, more than 50% of respondents in all the four districts preferred fruit drinks as they thought it was healthy. Around 33% of the consumers in Kandy, 21% in Hambantota, 27% in Anuradhapura and 29% in Gampaha districts preferred fruit drinks as a tasty drink. The lowest percentage of consumers preferred fruit drinks as an aid to put off the thirst and hunger.

5.3.1.2 Reasons for the Preference of Carbonated Drinks

Table 5.11, revealed the reasons for the preference of carbonated drinks. According to that, 62% of respondents in Kandy, 71% in Hambantota, 63% in Anuradhapura and 67% in Gampaha have reported that they preferred carbonated drinks as a means to put off the thirst immediately. Higher and easy availability was the second important reason for the preference of carbonated drinks and the low price was the least important reason.

Table 5.11: Reasons for Preference of Carbonated Drinks

Reasons	Kandy				Hambantota				Anuradhapura				Gampaha			
	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %
As an aid to put off the thirst immediately	80	48	59	62	70	72	72	71	59	66	63	63	64	68	69	67
Higher and easy availability	12	28	32	24	18	14	19	17	27	18	24	23	31	22	28	27
Low price	8	24	9	16	12	14	9	12	14	16	13	14	5	10	3	6

Source: HARTI Survey Data, 2013

5.3.2 Time of Consumption of Beverages

According to the table 5.12, more than 50% of the consumers in all the four districts consume fruit drinks when they feel hungry and thirsty. It was recorded as 58% in Kandy, 58% in Hambantota, 56% in Anuradhapura and 53% in Gampaha. In the company of friends was the second frequent instance reported by the sample respondents. Around 3%-4% of the sample consumers in all the four districts have reported that they consume fruit drinks during breakfast. When considering the carbonated drinks, highest percentage of consumers in Kandy district (40%), 38% in Hambantota, 36% in Anuradhapura and 37% in Gampaha, consumed carbonated drinks when feeling thirsty. It was revealed that the table 5.13. According to that, 22% of the respondents in both Kandy and Gampha districts, 25% in both Hambantota and Anuradhapura districts have consumed carbonated drinks at the parties and functions. Consumption of carbonated drinks long with meals was also accounted for 10% of the respondents in Kandy, 9% in Hambantota, 8% in Anuradhapura and 5% in Gampaha.

Table 5.12: Occasion of Consumption of Fruit Drinks

Occasion	Kandy (N=150)				Hambantota (N=150)				Anuradhapura (N=150)				Gampaha (N=150)			
	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %
Feeling hungry and thirsty	54	58	61	58	56	65	53	58	57	57	54	56	64	63	64	63
With friends	18	18	14	17	16	16	18	17	21	20	28	22	14	15	18	16
In trips	10	11	15	12	8	15	22	15	8	10	17	12	13	11	16	13
Special occasions	13	11	9	10	12	3	6	7	12	10	1	8	5	9	2	6
During breakfast	5	2	1	3	8	1	1	3	4	3	-	2	4	2	-	2

Source: HARTI Survey Data, 2013

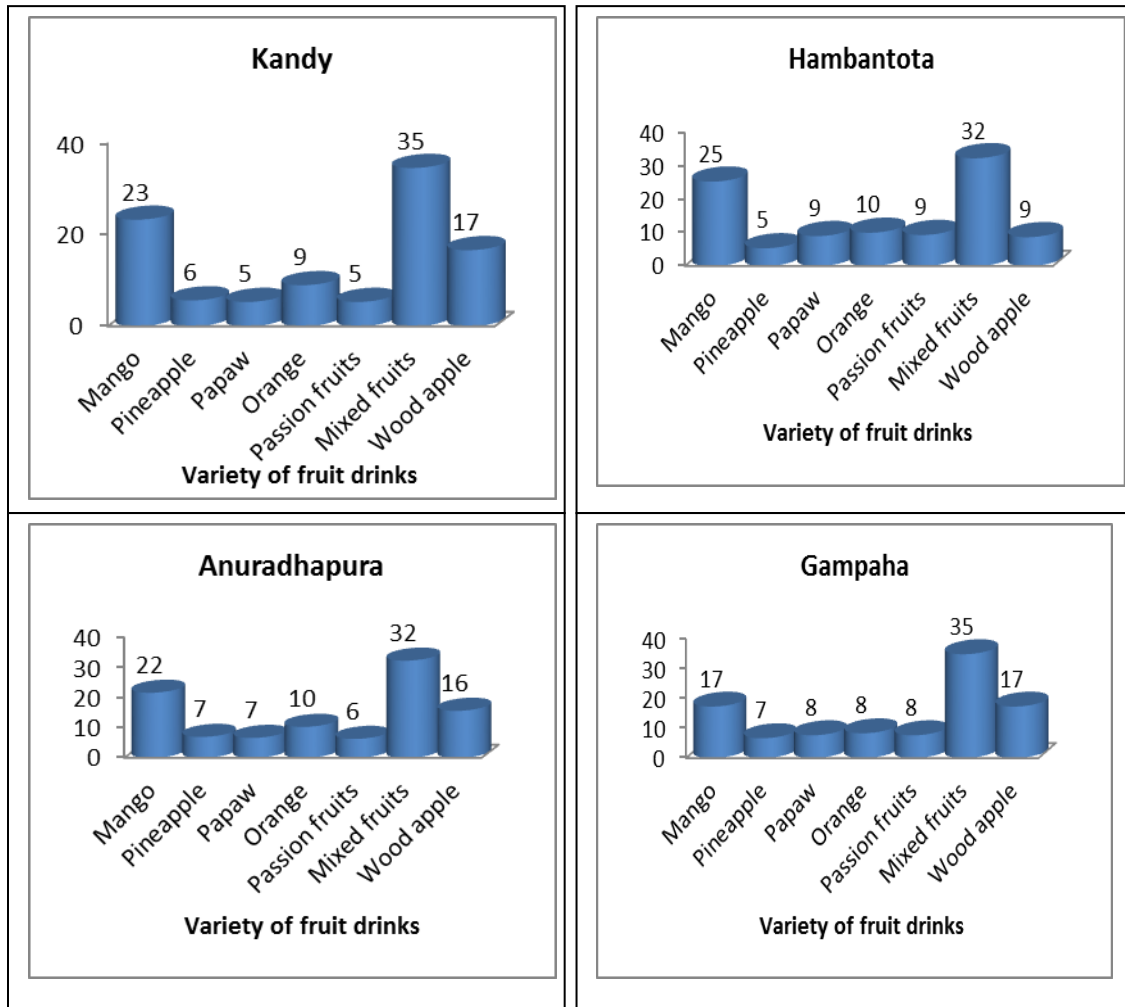
Table 5.13: Occasion of Consumption of Carbonated Drinks

Occasion	Kandy (N=150)				Hambantota (N=150)				Anuradhapura (N=150)				Gampaha (N=150)			
	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %
Feeling thirsty	44	37	37	40	41	42	36	38	33	38	38	36	38	41	36	37
Special occasions	20	27	20	22	28	25	23	25	25	24	25	25	21	26	20	22
In trips	13	15	18	15	13	20	17	17	20	13	18	17	18	20	15	21
With friends	12	9	19	15	10	8	14	11	12	19	10	14	17	12	19	15
With meals	11	12	6	8	11	5	10	9	10	6	9	8	6	1	10	5

Source: HARTI Survey Data, 2013

5.3.3 Preference for Fruit Drinks Variety and Category

As shown in the figure 5.7, 35% of the respondents in both Kandy and Gampaha, 32% of the consumers in both Hambantota and Anuradhapura, have reported that they preferred mixed fruit drinks. Mango and wood apple became second and third highest preferred variety by the consumers in Kandy, Anuradhapura and Gampaha. However, in the Hambantota district, the second highest preferred variety was mango while the third preferred variety was orange.



Source: HARTI Survey Data, 2013

Figure 5.7: Most Preferred Variety of Fruit Drinks

When considering the fruit drink category, more than 50% of the consumers in all the four districts have preferred to drink fresh fruit juice. According table 5.14, 56% of the respondents in Kandy, 73% in Hambantota, 66% in Anuradhapura and 54% in Gampaha district preferred the fresh fruit juice category. The second highest preference was recorded for ready- to- drink fruit juice category (nectar) and fruit cordial was the least preferred variety.

Table 5.14: Most Preferred Fruit Drink Category

Category	Kandy				Hambantota				Anuradhapura				Gampaha			
	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %
Fresh fruit juice	71	47	50	56	75	61	84	73	67	65	66	66	47	53	62	54
Ready to drink fruit juice (Nectar)	29	45	46	40	15	27	13	18	26	33	25	28	30	40	23	31
Fruit cordial	-	8	4	4	10	12	3	8	7	2	9	6	23	7	15	15

Source: HARTI Survey Data, 2013

5.3.4 Brand Preference of Fruit Drinks

When considering the preferred brands of fruit juices among the sample respondents, 70% of the consumers in Kandy district, 72% in Hambantota, 75% in Anuradhapura and 77% in Gampaha districts preferred well reputed brand names of local fruit drinks. Reputed brand names of imported fruit drinks came second in all the four districts. Consumption of fruit drinks popular only in the locality is higher in the rural areas in all the four districts than in the urban or semi urban areas. These results reveal that, most of the consumers consider the reputation of the brand and most of them like to consume local products than the imported products. Fruit drinks which are available only in the locality are also popular to a certain extent in rural areas and it revealed that there is a possibility to improve the small scale products in rural areas. Table 5.15 depicts the above situation.

Table 5.15: Preferred Brand of Fruit Drinks

Brand	Kandy				Hambantota				Anuradhapura				Gampaha			
	U %	Su %	R %	T %	U %	Su %	R %	T %	U %	Su %	R %	T %	U %	Su %	R %	T %
Reputed brands (Local)	78	68	60	70	80	72	62	72	78	75	73	75	85	79	68	77
Reputed brands (Imported)	12	20	20	17	15	20	20	18	12	18	15	15	10	15	22	16
Popular Brands limited only to particular area	10	12	20	13	5	8	18	10	10	7	12	10	5	6	10	7

Source: HARTI Survey Data 2013

5.3.5 Preference for Package of Beverages

As shown in the table 5.16, more than 70% of the fruit drink consumers in all the four districts, preferred the plastic bottles. It was 77% respondents in both Kandy and Hambantota, 78% in Anuradhapura and 74% in Gampaha. Further, more than 75% of the carbonated drinks respondents in all the four districts preferred the plastic bottles. It was 74% the consumers in Kandy, 78% in both Hambantota and Anuradhapura, and 79% in Gampaha.

Table 5.16: Most Preferred Package of Fruit Drinks and Carbonated Drinks

Type of Package of Fruit Drinks	Kandy (N=150)				Hambantota (N=150)				Anuradhapura (N=150)				Gampaha (N=150)			
	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %
Plastic bottle	77	75	80	77	79	81	72	77	83	74	78	78	79	90	74	74
Glass bottle	17	22	17	19	18	17	22	20	15	23	19	20	20	8	20	21
carton	6	3	3	4	3	2	6	3	2	3	3	2	1	2	6	5
Type of Package of Carbonated Drinks																
Plastic bottle	69	76	78	74	81	84	70	78	80	76	77	78	80	86	70	79
Glass bottle	30	22	22	25	18	16	30	21	18	22	23	21	19	12	30	20
Tin	1	2	-	1	1	-	-	1	2	2	-	1	1	2	-	1

Source: HARTI Survey Data, 2013

5.3.6 Reasons for the most Preferred Package of Beverages

Majority of both fruit drinks and carbonated drinks consumers preferred plastic bottles as it is easy to carry, handle, consume and dispose. This reason was reported by 55% of the consumers in Kandy, 77% of respondents in Hambantota, 83% of consumers in Anuradhapura and 70% respondents in Gampaha. This situation is given in the table 5.17.

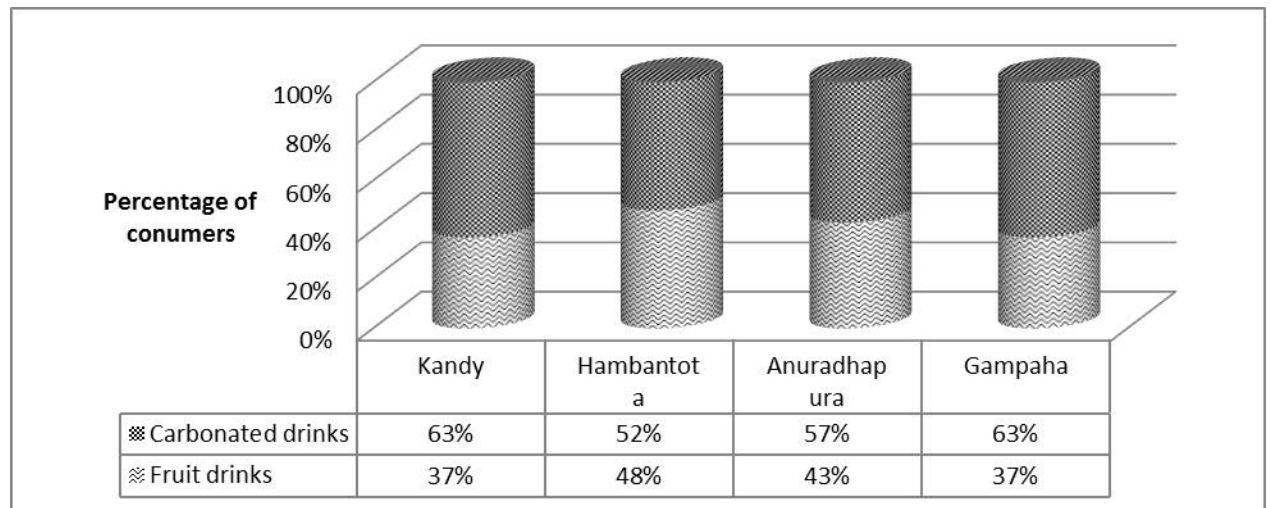
Table 5.17: Reasons for the Preference of Plastic Bottles

Reasons	Kandy (N=150)				Hambantota (N=150)				Anuradhapura (N=150)				Gampaha (N=150)			
	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %
Easy to carry, handle, consume and dispose	73	50	43	55	92	58	80	77	83	81	85	83	77	67	67	70
Higher availability	20	21	33	25	8	28	10	13	15	13	9	12	20	23	20	21
Can reuse	7	28	24	20	-	14	10	10	2	6	6	5	3	10	13	8

Source: HARTI Survey Data 2013

5.3.7 Consumers' Views regarding the Price and Health Benefits of the Beverages

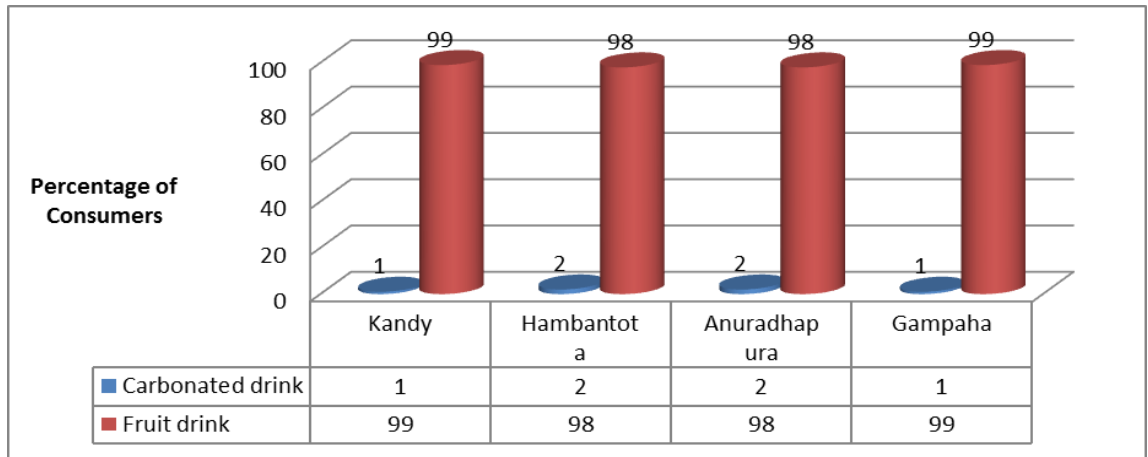
More than 50% of the respondents in all the four districts reported that carbonated drink is the most affordable drink compared to the fruit drinks. It is revealed in figure 5.8.



Source: HARTI Survey Data, 2013

Figure 5.8: Most Affordable Drink According to Economy

However, according to the figure 5.9, more than 95% of the respondents in all the four districts reported that, fruit drink is the healthiest drink compared to carbonated drinks.



Source: HARTI Survey Data, 2013

Figure 5.9: Most Healthy Drink

5.3.8 Factors Determining the Consumption of Beverages

In this part of the study, statistical relationships between external factors such as appearance, taste and packaging and the consumption of fruit drinks and carbonated drinks were investigated using Chi-square test. Statistical test are as follows:

5.3.8.1 Appearance

When we consider whether the appearance of fruit drinks and carbonated drinks has any impact on the consumption of the respondents, the Chi-Square value is not significant ($0.71 > 0.05$) at the 5% level of significance for fruit drinks and ($0.190 > 0.05$) at the 5% level of significance level of carbonated drinks. These results are shown in table 5.18 and 5.19. According to that, there is no link between appearance and consumption of both fruit drinks and carbonated drinks.

Table 5.18: Effect of Appearance of Fruit Drinks

Chi-Square Tests			
	Value	df	Asymp. Sig.(2-sided)
Pearson Chi-Square	2.191 ^a	4	0.701
Likelihood Ratio	1.853	4	0.763
Linear-by-Linear Association	0.001	1	0.981
No. of Valid Cases	539		

a.2 cells (20.0%) have expected count less than 5. The minimum expected count is 0.82.

Source: HARTI Survey Data, 2013

Table 5.19: Effect of Appearance of Carbonated Drinks

Chi-Square Tests			
	Value	df	Asymp. Sig.(2-sided)
Pearson Chi-Square	6.125 ^a	4	0.190
Likelihood Ratio	6.342	4	0.175
Linear-by-Linear Association	0.673	1	0.412
No. of Valid Cases	494		
a.2 cells (20.0%) have expected count less than 5. The minimum expected count is 1.07.			

Source: HARTI Survey Data, 2013

5.3.8.2 Packing

Table 5.20: Effect of Packing of Fruit Drinks

Chi-Square Tests			
	Value	df	Asymp. Sig.(2-sided)
Pearson Chi-Square	2.337 ^a	4	0.674
Likelihood Ratio	2.076	4	0.722
Linear-by-Linear Association	0.098	1	0.754
No. of Valid Cases	539		
a.4 cells (40.0%) have expected count less than 5. The minimum expected count is 0.30.			

Source: HARTI Survey Data, 2013

According to the table 5.20, Chi-Square value is not significant (0.674>0.05) at the 5% level of significance. It can be concluded that there is no relation between the package and consumption of fruit drinks.

Table 5.21: Effect of Packing of Carbonated Drinks

Chi-Square Tests			
	Value	df	Asymp. Sig.(2-sided)
Pearson Chi-Square	2.502 ^a	4	0.644
Likelihood Ratio	2.617	4	0.624
Linear-by-Linear Association	0.841	1	0.359
No. of Valid Cases	494		
a.4 cells (40.0%) have expected count less than 5. The minimum expected count is 0.36.			

Source: HARTI Survey Data, 2013

According to the table 5.21, Chi-Square value is not significant (0.644>0.05) at the 5% level of significance. It can be concluded that there is no relation between the package and consumption of carbonated drinks.

5.3.8.3 Taste

Table 5.22: Effect of Taste of Fruit Drinks

Chi-Square Tests			
	Value	df	Asymp. Sig.(2-sided)
Pearson Chi-Square	17.516 ^a	4	0.002
Likelihood Ratio	10.457	4	0.033
Linear-by-Linear Association	4.305	1	0.038
No. of Valid Cases	539		
a.5 cells (50.0%) have expected count less than 5. The minimum expected count is 0 .07.			

Source: HARTI Survey Data, 2013

According to the table 5.22, Chi-Square value is significant (0.002<0.05) at the 5% level of significance. It can be concluded that there is a relation between the taste and consumption of fruit drinks.

Table 5.23: Effect of Taste of Carbonated Drinks

Chi-Square Tests				
	Value	df	Asymp. Sig. (2-sided)	
Pearson Chi-Square	14.801 ^a	4	0.005	
Likelihood Ratio	12.704	4	0.013	
Linear-by-Linear Association	1.046	1	0.306	
No. of Valid Cases	494			
a. 5 cells (50.0%) have expected count less than 5. The minimum expected count is 0.12.				

According to the table 5.23, Chi-Square value is significant ($0.005 < 0.05$) at the 5% level of significance. It can be concluded that there is a relation between taste and consumption of carbonated drinks.

Source: HARTI Survey Data, 2013

These results have shown that taste was the only factor considered by the sample respondents when they were consuming both fruit drinks and carbonated drinks. Further, it was mentioned that appearance and package were not considered much by the sample consumers.

5.4 Suggestions, Ideas and Preference for the Development of Fruit Drink Industry in Sri Lanka

5.4.1 Views of the Consumers about the Popularity of Fruit Drink Industry

According to the table 5.24, more than 60% of the respondents in all the four districts highly recommend the popularizing of fruit drinks over carbonated drinks. It was 77% consumers in Kandy, 64% in Hambantota, 60% in Anuradhapura and 68% in Gampaha. However, percentages that dislike the popularity of fruit drink industry was very low in Kandy, Hambantota and Anuradhapura (1%), while the disliked consumers could not be found in the Gampaha district.

Table 5.24: Ideas about the Popularity of Fruit Juice instead of Carbonated Drinks

Ideas	Kandy (N=150)				Hambantota (N=150)				Anuradhapura (N=150)				Gampaha (N=150)			
	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %
Highly recommended	78	74	78	77	60	69	64	64	67	55	58	60	69	66	70	68
Like	14	18	16	16	24	24	26	25	21	35	25	27	28	25	20	24
Neither like or dislike	8	6	6	6	14	6	10	10	12	10	13	12	3	9	10	8
Dislike	-	2	-	1	2	1	-	1	-	-	4	1	-	-	-	-

Source: HARTI Survey Data, 2013

5.4.2 Reasons for the Preference of Popularity of Fruit Drink Industry

As mentioned in the table 5.25, majority of the consumers preferred popularizing of the fruit drink industry. The main reason for that was they think fruit drinks are better for health than the carbonated drinks. According to the table 5.25, 58% of the respondents in Kandy, 53% of consumers in Hambantota, 51% of respondents in Anuradhapura and 56% consumers in Gampaha supported the above idea. Further, 24% of consumers in Kandy, 32% in Hamabantota, 31% in Anuradhapura and 23% in Gampaha reported that the fruit drink industry should be popularized since fruit drinks are more tasty and fresh than the carbonated drinks.

Table 5.25: Reasons for the Preference for Popularity of Fruit Drinks

Reasons	Kandy (N=150)				Hambantota (N=150)				Anuradhapura (N=150)				Gampaha (N=150)			
	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %	U %	SU %	R %	T %
Fruit drinks are healthier than carbonated drinks	50	60	65	58	58	50	51	53	53	49	52	51	48	59	60	56
Fruit drinks are tastier, and fresh than the carbonated drinks	24	22	25	24	36	31	29	32	35	34	25	31	27	19	24	23
Fruit drink can be used as a hunger relief	20	14	7	14	4	9	13	9	7	13	16	12	18	11	10	13
An income boost for fruit cultivators	6	4	3	4	2	6	7	5	5	4	7	5	7	11	6	8

Source: HARTI Survey Data, 2013

5.4.3 Consumers' Suggestions to Promote the Fruit Drink Industry in Sri Lanka

As shown in table 5.26, the highest percentage of consumers in all the four districts, are of the view that, fruit juice industry should be expanded and fresh fruit juice centers should be established island wide. It was reported by 30% of the consumers in Kandy, 32% of consumers in Hambantota, 36% of respondents in Anuradhapura and 40% of consumers in the Gampaha district. The second important suggestion was, it should be sold at a reasonable price. Quality and standards should be increased; availability of low sugar drinks should be increased, shelf-life must be improved without chilling, a vigorous advertising campaign should be launched were other important suggestions made by the consumers to promote and develop the fruit drink industry in Sri Lanka.

Table5.26: Suggestions to Promote the Fruit Drink Industry in Sri Lanka

Suggestions	Kandy % (N=150)	Hambantota % (N=150)	Anuradhapura % (N=150)	Gampaha % (N=150)
Should expand and establish fresh fruit juice centers island wide	30	32	36	40
Should be sold at a reasonable price	18	20	19	15
Should increase the quality and standards	12	15	13	13
Increase the availability of low sugar drinks	11	12	11	9
Improve the shelf-life without chilling	9	10	8	8
Strong advertising campaign must be launched to increase the popularity and awareness of fruit drinks	8	5	6	7
Lid must be made of non-corrodible materials	5	2	3	4
Should be concerned about the taste of mixed fruit drinks	3	2	2	2
Package should be healthy, safe, transparent and attractive	2	1	1	1
Should diversify products, improve quality and quantity and expand the marketing activities	2	1	1	1

Source: HARTI Survey Data, 2013

CHAPTER SIX

Findings, Conclusion and Recommendations

6.1 Major Findings

6.1.1 Demographic Information

1. Teenagers and the younger generation highly prefer carbonated drinks while the young people aged 26-35 years preferred fruit drinks more as they are more conscious about the health.
2. The highest percentage of carbonated drink consumers (50%) were students (School+ University + Vocational training etc.) Meanwhile, the highest percentages of fruit drink consumers were government sector employees.
3. Higher percentage of carbonated drink consumers were males in all the four districts (58%) in contrast to the higher percentage of fruit drink consumers who were females (64%). It revealed that female consumers are more concerned about the health than the thirst and the male consumers are driven by the immediacy of put off thirst.

6.1.2 Purchasing Information

1. An important finding that emerged out of the survey was, more than 75% of the consumers in all the four districts preferred fruit drinks than carbonated drinks because they consider it as a healthy drink. Further, more than 80% of the consumers in the sample population reported that they preferred to buy local beverages than imported beverages (both fruit drinks and carbonated drinks).
2. Though the highest percentage of both fruit drink consumers and carbonated drinks consumers purchased beverage for self-consumption, the purpose of buying for their family consumption and their children are higher in fruit drink consumers than in the carbonated drink consumers.
3. More than 54% of the consumers in all the four districts preferred to buy small sized (buddy) pack of both fruit drinks and carbonated drinks due to affordability and portability. Convenience of consumption is another important factor.
4. More than 92% of the respondents in all the four districts definitely read the package labels of beverages to know about the expiry date. However, more than 80% of the consumers reported that they do not read the labels before purchasing to know about the ingredients. It is revealed that, majority of the consumers are

not concerned about the ingredients of the beverages. They are concerned only about the expiry date.

5. The highest percentage of consumers (more than 40%) in all the four districts, have reported that, the advertising definitely influenced their purchasing behavior of both fruit drinks and carbonated drinks.
6. Health and safety, taste, price and brand names were the major factors considered by the consumers when purchasing fruit drinks.
7. Taste, immediacy to put off thirst, price and brand names were the major factors considered by the consumers when purchasing carbonated drinks.

6.1.3 Consumption Information

1. When considering the reasons which impacted the choice of fruit drinks there were three reasons revealed by the study:
 - I. It is a healthy drink
 - II. It is tasty drink
 - III. It is an aid to put off thirst and hunger
2. In contrast, carbonated drink consumers preferred carbonated drinks due to following major reasons,
 - I. As an aid to put off thirst immediately
 - II. Readily available anywhere
 - III. Low price
3. The highest percentage (more than 30%) of fruit drink consumers preferred mixed fruit drink followed by mango and woodapple.
4. When considering the fruit drink category, more than 50% of the consumers in all the four districts preferred to drink fresh fruit juice. The second highest preference was recorded for ready- to-drink fruit juice category (nectar) and fruit cordial was the least preferred variety.
5. More than 70% of the consumers in all the four districts preferred well-reputed brand names of local fruit drinks. Reputed brand names of imported fruit drinks had the second highest number of consumers in all the four districts. Fruit drinks which are popular only within particular areas are higher in the rural areas in all the four districts than the urban or semi urban areas. These results revealed that, most of the consumers consider about the reputed brand names and most of them like to consume local products than imported products. Fruit drinks which are available only in particular areas are also popular to a certain extent in rural areas

and it revealed that there is some possibility to improve small scale products in rural areas.

6. More than 70% of the consumers in all the four districts preferred plastic bottles (both fruit drinks and carbonated drinks) to other forms of package as they are easy to carry, handle, consume and dispose.
7. Statistical relationships between external factors such as appearance, taste and packing and the preference for fruit drinks and carbonated drinks were investigated using Chi-square test. The results were as follows:
 - I. There is no relation between the appearance and consumption of both fruit drinks and carbonated drinks.
 - II. There is no association between package and consumption of both fruit drinks and carbonated drinks.
 - III. There is a link between taste and consumption of both fruit drinks and carbonated drinks.

These results have shown that taste was the only factor which was considered by the sample respondents when they consumed both fruit drinks and carbonated drinks. Further, it was mentioned that appearance and package were not much considered by the sample consumers.

8. More than 85% of the respondents in all the four districts preferred popularizing of the fruit drink industry in Sri Lanka instead of carbonated drinks as they think fruit drinks are better for health than carbonated drinks. The second highest important reason is fruit drinks are tastier and fresher than the carbonated drinks.
9. To develop and promote the fruit drink industry in Sri Lanka, most of the consumers suggested that, the fresh fruit drink industry should be expanded and fresh fruit juice centers should be set up island wide and it should be sold at a reasonable price. In order to promote sales and to achieve consumer satisfaction, quality and the standard should be improved by performing routine quality check-ups.

6.2 Conclusion

Today, consumers are concerned over health and wellness. As a result, there is a significant impact on beverage purchases. Many studies have shown that consumers are concerned with good health as they are keen in maintaining a high quality of life. The purpose of this study is to develop a better understanding of consumer preference and consumption patterns of fruit drinks and carbonated drinks of consumers in Kandy, Hambantota, Anuradhapura and Gampaha districts in Sri Lanka.

In the literature survey we found there are more disadvantages than advantages of carbonated drinks. In contrast, regardless of the few disadvantages, fruit drinks may deliver a lot of advantages that go along with their consumption. Our study also found that the highest percentage of consumers in all the four districts, preferred fruit drinks than the carbonated drinks as they consider it as healthy. According to that, there is a huge potential to develop the fruit drink market in Sri Lanka. Though, there is really no advantage health wise and no nutritional value in carbonated drinks, still the market share of carbonated drinks is higher than the fruit drinks due to globally and locally reputed, large scale companies dominating the beverage market. However, majority of the carbonated drink consumers are used to it as it has a good taste, higher availability (everywhere), convenience and it is relatively less costly than fruit drinks. The urge to put off thirst, vigorous promotional and advertising programs launched by the companies have influenced the consumption of the carbonated drinks.

An important finding that emerged out of the survey was more than 70% of the respondents in all the four districts approve of the popularizing of the fruit drink industry in Sri Lanka instead of carbonated drinks. Fruit drink market in Sri Lanka is dominated by the well-reputed brands of local fruit drinks, followed by well reputed brands of imported fruit drinks. Hence small scale fruit drinks limited only to particular localities cannot compete in this context. However, there is demand for that variety from rural areas of all the four districts. Hence, there is a possibility to improve that market. The study concludes that, more than 70% of consumers in all the four districts, preferred fruit drinks over other varieties. It is revealed that there is more room for the fruit drink market to improve in future.

6.3 Recommendations and Suggestions

- I. The fresh fruit juice and ready- to- drink fruit nectar category also has great potential. Hence it is important to establish and expand the fresh fruit juice centers island wide (It could begin from the government office premises, schools etc.)
- II. The quality standards and the taste of fruit drinks should be increased by frequent quality check-ups and introducing new tastes.
- III. A strong advertising program must be launched to increase the awareness of the fruit drinks and popularity of fruit drink industry.
- IV. With the changing lifestyle, people have started becoming more health conscious. Therefore, fruit juice companies should use appropriate marketing techniques to capture the market in the future.
- V. More facilities to small scale fruit drink producers should be provided by the government to reach the larger market.
- VI. Packages should be healthy, safe, transparent and attractive. It should be more convenient to carry, consume and dispose (majority of the consumers preferred plastic bottles due to convenience) and the companies must take these points into account.

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