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## A comparative study of Carbonated Drinks and Fruit Drinks in Ahmedabad City

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### ABSTRACT

The purpose of this research is to hit upon mainly on the preference regarding cold drinks among the customers of Ahmedabad. This research has helped us to know about the perception of customers regarding different types of cold drinks available in the market. Once was a time when carbonated drinks were in high demand in the Indian market but with change in time and level of awareness in customers regarding side effects of consuming carbonated drinks has inspired us to conduct this research so we can come to know which type of cold drinks customers prefer. After conducting this research, we also came to know about various other factors which have affected the perception of the customers. The research helped us to understand the awareness level of the customers regarding side effects of consuming harmful cold drinks. This research enlightens us about the level of satisfaction of the consumers regarding various factors of cold drinks such as quality, quantity, price, etc. Consumers were also asked about the factors which may affect their decision to buy cold drinks. This research is very helpful to understand the changing taste of the consumers regarding cold drinks as well as the demand and expectations of the customers which can help the cold drinks companies to satisfy the consumers' needs.

**Keywords:** Cold drinks, soft drinks, carbonated drinks, fruit drinks

### 1. INTRODUCTION

Beverage is a drink or a liquid, apart from water, which is consumed by human. Tea, Coffee, Juice, Soft drinks, Milk, beer, Liquor are some examples of beverages.

#### Types of Beverage

- Alcoholic Beverages
- Non-alcoholic Beverages
- Soft drinks
- Fruit juice
- Hot Beverages

From given list of beverages, we are going to do a comparative study on carbonated drinks and fruit drinks. They both come under the category of Soft drinks. The word SOFT indicates the absence of alcohol in these types of beverages. Many carbonated drinks are available in different versions. Either they come sweetened with sugar or with sweeteners without calories.

#### Indian Beverage Market

The Indian food industry has crossed the \$300 billion mark by 2015 and still growing like anything. In this huge market, \$5 billion market is captured by Non-alcoholic beverages in India. From past few years, a new segment has been introduced in the beverage industry of India i.e. Health Beverages. As the awareness level in people of India about their health, the demand for health beverages is increasing rapidly. The current health drinks market of India is around \$300 million and it is the most rapidly growing market in present times.

As the health drinks market is rapidly growing on one side, the carbonated drinks market is also giving tough competition. A huge part of market is shared by carbonated drinks containing synthetic flavours which are based on Lime, Cola and Orange. The complete carbonated drinks section depends upon its synthetic flavours and sugaring agents as it does not contain natural juice. However, the carbonated drinks' market is not growing as per the expectation. The main reason behind this is the increased level of awareness among consumers. People are shifting towards health drinks because of its advantages. It is natural and more advantageous to the body than the carbonated drinks.

The National Council for Applied Economic Research did a survey which says that 91% of soft drinks in the country are in the lower, lower middle and middle class families. So in this research, we will study about the awareness in people regards to carbonated and fruit drinks. Also we will be studying about the purchasing patterns, their preferences, perception and satisfaction level regarding carbonated and fruit drinks.

## 2. LITERATURE REVIEW

(Franziska, 2016) mentioned that a large examinational research on around 2,500 individuals found that cola was the only drink related with considerably lower bone mineral density. Carbonated water emerged non-effective on bone strength.

(Solomon, 2015) quoted that dentists from the University of Birmingham did research on the possibility of dental erosion because of carbonated water. No relationship was found between them. Caffeine, which was earlier found responsible for dehydration in carbonated beverages, was also not responsible for the problem.

(Spritzler, 2016) mentioned that in a two-week research on 40 senior individuals who were suffering from strokes, normal bowel movement frequency almost twice among the people that consumed carbonated water, than that of the people who drank tap water. Even better result was that the individuals, who consumed carbonated water, mentioned 58% decrement in symptoms.

(Spector, 2014) cited that there was no significant proof that carbonated water caused harm to our bone. This misunderstanding rose due to a study that mentioned a relation between carbonated drinks and low bone mineral density. It was true that artificial carbonated water was a little more acidic than normal water, it was found lesser acidic than cold drinks with heavy amount of sugar in it, and it did not appear to harm tooth enamel.

(Merett, 2007) concluded that the Indian market for carbonated drinks had dropped by five percent for consequently second year as customers in the country adopted non-carbonated substitutes, new study had found.

(Champion, 2015) explained about one general misunderstanding that drinking carbonated water resisted the body from absorbing calcium, which increased the danger of osteoporosis. According to the experts, idea was unfounded. The thought rose from a research published in 2006 in the American Journal of Clinical Nutrition that mentioned a relationship between carbonated drinks and lower bone mineral density. Nevertheless, the study did not mention similar relationship with carbonated water.

(Chibber, 2011) stated that the Associated Chambers of Commerce and Industry (ASSOCHAM) in India's latest report mentioned that soft drinks market in India would grow up to US\$2.3 billion by 2015.

## 3. RESEARCH METHODOLOGY

### Research Objectives

- To know the consumers preference regarding cold drinks.
- To analyse the consumers perception regarding cold drinks.
- To study the impact of demographic factors on consumption pattern of cold drinks.
- To find out the satisfaction level of consumers about various factors of cold drinks.

**Research Design:** The research design here is descriptive in nature, as all the facts are persistent to the study and the authors are just trying to uncover and extract the same.

**Data Collection Method:** A primary data is collected in the research.

**Data Collection Tool:** Structured Questionnaire was the tool used for collecting data.

**Sample Size:** We took data from 100 Consumers of Ahmedabad.

**Sampling Method:** Convenient sampling method was used.

**Data Analysis Tool:** IBM SPSS V20 software was used to analyse the data.

**Primary Data:** Primary data was collected using a structure questionnaire by approaching the consumers directly.

**Secondary Data:** Secondary data was taken from sources like websites and newspapers.

#### 4. ANALYSIS OF THE STUDY

Table No. 1 Gender		
	Frequency	Percent (%)
Male	40	40
Female	60	60
Total	100	100

Table No 1 describes gender classifications of the respondents. We can see in the table that out of 100 respondents, 60% of the respondents are Female while 40% of the respondents are Male.

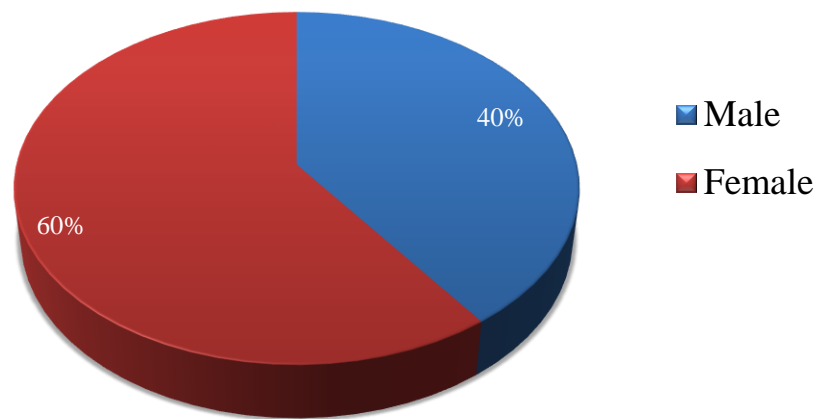


Figure 1 – Gender

Table No. 2 Age		
	Frequency	Percent (%)
Less than 18	9	9
18 – 30	66	66
31 – 40	16	16
41 – 50	8	8
More than 50	1	1
Total	100	100

Table No. 2 describes Age classification of the respondents. As we can see, 66% of the total respondents belongs to the age group 18 – 30 followed by 16% in the age group 31 – 40. Respondents belonging to age group of less than 18, 41 – 50 and more than 50 are 9%, 8% and 1% respectively.

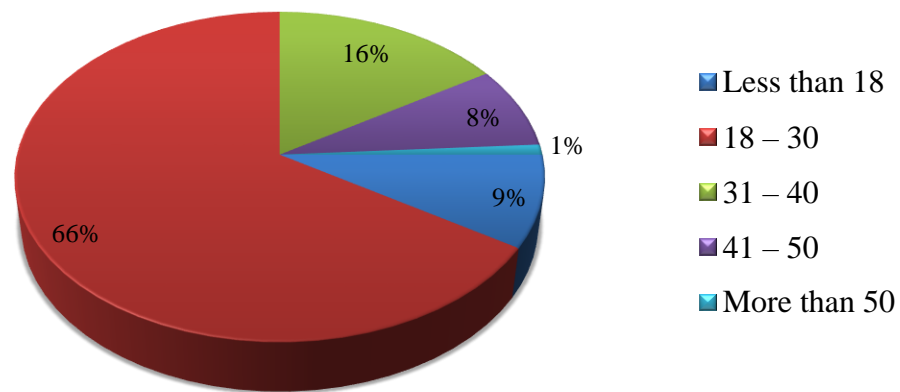


Figure 2 – Age

Table No. 3 Consumption of cold drinks		
	Frequency	Percent (%)
Yes	78	78
No	22	22
Total	100	100

We can see from the table no. 5 that 78% of the Respondents consume cold drinks while 22% of the respondent does not consume cold drinks.

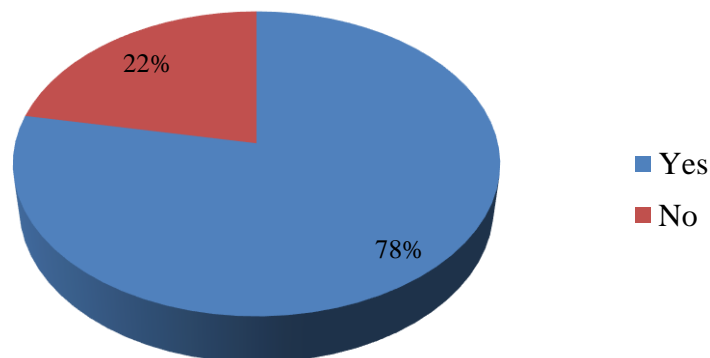


Figure 3 - Consumption of cold drinks

Table No. 4 Age and Gender Cross tabulation				
		Gender		Total
		Male	Female	
Age	Less than 18	5	4	9
	18 – 30	22	44	66
	31 – 40	8	8	16
	41 – 50	4	4	8
	More than 50	1	0	1
Total		40	60	100

Table No. 4 represents cross tabulation of Age and Gender of the respondents. We can see that 44% respondents are female and belong to the age group of 18 – 30. 22% respondents are male and belong to the age group of 18 – 30. 8% male and 8% female belong to the age group of 31 – 40 whereas 5% male and 4% female aged less than 18.

**Table No. 5 consumption of cold drinks and Monthly Family Income Cross tabulation**

		Monthly Family Income						Total
		Less than 10000	10001 - 20000	20001 - 30000	30001 - 40000	40001 - 50000	More than 50000	
Consumption of cold drinks	Yes	3	4	7	11	14	39	78
	No	1	1	2	2	9	7	22
Total		4	5	9	13	23	46	100

Table No. 5 shows the cross tabulation of Monthly Family income of respondent and Consumption of cold drinks by respondents. We can see that 39% of the respondents who consumes cold drinks have monthly family income above 50000 followed by 14% respondents with income 40001-50000 and 11% respondents with income 30001-40000.

## 5. FINDINGS

Sr.No.	Hypothesis	Test	Significant	Acceptance or Rejection
H0 <sub>1</sub>	Respondents do not consume cold drinks.	Binomial	0.000	Rejected
H0 <sub>2</sub>	There is no relation between Monthly income and consumption of cold drinks.	Chi - square	0.355	Accepted
H0 <sub>3</sub>	Respondents are not satisfied with the Price of Carbonated drinks.	One Sample T test	0.001	Rejected
H0 <sub>4</sub>	Respondents are not satisfied with the Discounts given on carbonated drinks.	One Sample T test	0.301	Accepted
H0 <sub>5</sub>	Respondents are not satisfied with the Price of Fruit drinks.	One Sample T test	0.001	Rejected
H0 <sub>6</sub>	Respondents are not satisfied with the Discounts given on Fruit drinks.	One Sample T test	0.198	Accepted

1. H0<sub>1</sub> was tested using Binomial test and the hypothesis was rejected as the significant value 0.000 is lesser than the standard value 0.05 which meant that Respondents do consume cold drinks.
2. H0<sub>2</sub> was tested using Chi-square test and the hypothesis was accepted as the significant value 0.355 is greater than the standard value 0.05 which meant that there is no relation between Monthly income and consumption of cold drinks.
3. H0<sub>3</sub> was tested using one sample T test and the hypothesis was rejected as the significant value 0.001 is lesser than the standard value 0.05 which meant that Respondents are satisfied with the Price of Carbonated drinks.
4. H0<sub>4</sub> was tested using one sample T test and the hypothesis was accepted as the significant value 0.301 is greater than the standard value 0.05 which meant that Respondents are not satisfied with the Discounts given on carbonated drinks.
5. H0<sub>5</sub> was tested using one sample T test and the hypothesis was rejected as the significant value 0.001 is lesser than the standard value 0.05 which meant that Respondents are satisfied with the Price of Fruit drinks.
6. H0<sub>6</sub> was tested using one sample T test and the hypothesis was accepted as the significant value 0.198 is greater than the standard value 0.05 which meant that Respondents are not satisfied with the Discounts given on Fruit drinks.

7. We found that cold drinks are mostly consumed by female customers. 60% respondents who took part in the research were female.
8. 66% respondents who took part in the research were in the age group of 18-30 years. 46% respondents had monthly family income of more than 50000 per month.
9. 55% respondents taking part in the research are students whereas 24% respondents are doing job.
10. We found that 78% respondents consume cold drinks whereas 22% respondents do not consume cold drinks.

## **6. SUGGESTIONS**

- We would like to suggest the cold drinks companies to focus more on quality of the cold drinks rather than taste as consumers have become more cautious towards consumption of cold drinks as the level of awareness about possible side effects on health due to consumption of cold drinks has increased among consumers.
- Consumers are more interested in buying fruit drinks as per our research results but the options available of fruit drinks in the markets are lesser so companies are advised to focus on production of fruit drinks as well.
- Companies are advised to produce fruit drinks according to the season. Consumers like to consume mango drinks in summer while guava drinks in winter. So it is better if the consumers are given options to consume seasonal fruit drinks.
- Consumers are not satisfied with the discounts given on cold drinks by companies. Consumers think that the cold drinks should be available at lower price so companies are suggested to work on price factor as well.

## **7. CONCLUSION**

After conducting the research we came to know about the preference and the perceptions of the customers towards cold drinks. We found that the consumption of the cold drinks has been increased with time but the preference is shifting. Carbonated drinks were in high demand in the last decade but with increasing in awareness level of the consumers regarding side effects of consuming carbonated drinks, the consumers are getting more attracted towards fruit drinks and that is why the consumption of fruit drinks has increased in past few years. The consumers are becoming cautious about their health and hence they are consuming cold drinks which are beneficial for health. Companies can increase their market share if they introduce healthy fruit drinks in the market.

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