# DOI-10.53571/NJESR.2022.4.10.49-59 An Analysis Of Usage Of Fresh And Packaged Juices Monika Rathore PhD Scholar Shri Khushal Das University

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# (Received:16September2022/Revised:1October2022/Accepted:10October2022/Published:31October2022) Abstract

With the changing lifestyle, people have started becoming more health conscious. Therefore, the fruit juice companies should use appropriate marketing techniques like social media platforms (Facebook, Blogs and Forums), traditional broadcasting and print media, sponsoring relevant events (youth sports, marathons etc.) and offer variants to customers in various points of purchases. The survey shows that social occasions and entertainment period are the influential occasions when the fruit beverages are consumed mostly. The companies must try to increase the volume by creating and focusing on more utilities so that their product is used more frequently. This study could be conducted on a larger scale to test whether or not similar preferences for fruit juices hold. Future research could focus also only on single attributes such as packaging & label for fruit juices.

# Keywords: Fruits, Juices, Drinks, Food, Money

### Introduction

Juice is, in a manner of speaking, considered as an extravagance not a need in our general populace, for certain yet bit by bit things are changing dominatingly in the metropolitan and semi metropolitan locale, where everybody is getting logically greater thriving careful and are understanding the gigantic upgrade evaluations of food sources created beginning from the earliest stage them a piece of their bit by bit diet. India has seen fanatic move being used of non-mixed drinks over the ceaseless past. As exhibited by McKinsey report on money related assessments, rapid widening ordinary citizens that is as of now more than 318 Million, expanded urbanization and rising discretionary capital are a piece of the colossal reasons adding to this change. Other than this, making thriving care among India's youngsters has perceived an upset in the Indian non-mixed drinks display. It has been seen that carbonated award deals have fallen

drastically by virtue of rising success concerns and this appears to have helped the country's noncarbonated rewards market, for example, charged beverages and regular thing crushes<sup>[2]</sup>.

Anyway, with individuals turning truly thriving knowing, the juice-based rewards have gotten one of the quickest making affiliations. As per the CII and Booz assessment, as the refreshment strategies ahead, India offers phenomenal conceivable all around, essentially more than China. At the present time, India addresses around 10% of generally reward utilization which makes enjoy use India the third most prominent on the planet, after the United States and China.

The ordinary thing press advance in India has not been completely tapped till date thinking about lamentable construction and storerooms, and it is altogether muddled market. Given its size, the Indian market is still in its early stages. For the future, juice makers have loads of possibilities in making normal thing crush advance. Indian normal thing crush display is a turbulent and actually making market. Actually this division is working consistently out and drawing in additional players keeping watch. Regardless of the way that the turbulent corner shop sellers request this market, Indian purchasers are moving towards checked standard thing crush thinking about their improvement in flourishing cognizance. The typical thing drink show is encountering expedient speed improvement attributable to changing purchaser propensities, Consumers are searching for extra supportive different choices and dietary benefit in the food they purchase today and believe this to be the going with best thing to having a new regular thing<sup>[2]</sup>.

As of now the framed ordinary thing crush show in India is coordinated by Pepsi co. with its image Tropicana, Dabur Foods with its image Real, but regular thing drinks display is tapped through and through by Parle Agro with brands like Frooti and Appy, Godrej with Jump in.

The market at this point has a game plan of ordinary thing crushes like 100 % normal thing press, nectar, regular thing drinks, and so on. Looking for the improvement possibilities and beast capacity of juice highlight in India different new players have also meandered, for example, Parle Agro Ltd with brand Saint, Godrej with Xs Surya Food Agro Ltd with its image Fresh Gold are not many to name<sup>[3]</sup>.

#### **Indian Fruit Juice Industry**

As demonstrated by Field and Focus quantifiable concentrating on report on drink industry, India positions first on the planet with a yearly yield of 32 million MT. While there are near 180 social occasions of typical things that are developed any place all through the world, citrus normal things spread out around 20% of world's done customary thing creation. Colossal Indian

customary things contain mango, banana, citrus normal things, apple, guava, papaya, pineapple and grapes. The regular things are prepared into different things, for example, typical thing presses and thinks, canned normal thing, got dried out standard thing, endlessly sticks, and so on. As per fruitvegetable.com, India has been a developing based economy for a huge time frame length and with its ongoing making of around 32 million MT of normal thing, addresses around 8% of the world's ordinary thing creation. The different agro-climatic zones the nation makes it conceivable to develop basically all blends of new regular things in India. The standard thing creation in India has recorded an improvement speed of 3.9%, while the regular thing dealing with division has made at around 20% per annum<sup>[3]</sup>.

As buyers become greater success careful and make some separation from carbonates, they are searching for choices that are more beneficial, for example, regular thing press yet different buyers are as of now ignorant regarding the distinctions between 100% Juice, Fruit-Flavored Drinks (No Juice Content), Juice Drinks (up to 24% Juice), Nectars (25-practically 100 percent Juice). Nectars performed well in that limit things are accepted to have an unrivaled and leaned toward taste in excess of 100% juice.

As shown by industry surveys, the bundled regular thing press highlight is today worth around Rs 500-600 cores, and is making major areas of strength for at digits. The typical thing drink announces, then again, is a lot more noteworthy, at around Rs 1300 crores reliably, with Pepsi's Tropicana and Dabur's Real holding basic lump of Fruit juice piece of the overall business. The bundled regular thing press advances in India at first got brands like NAFED, Noga, Midland, Gold Coin and Druk. These were ordinary thing crushes and nectars and not drinks. In any case, they didn't make an etching in that frame of mind because of reasons, for example, tremendous expense, horrendous bundling and nonappearance of right movement program. Parle Argo's Frooti, a mango drink, was presented in the tetra pack in 1985 and from that point forward has been a trailblazer in its part<sup>[4]</sup>. One can distinguish a movement that the business has seen with improvement in the tetra-pack advance, there moreover has been a brand name improvement from rewards to nectars to juices and recalling that generally regular thing drinks were based on kids, the new brands have zeroed in on youthful grown-ups and subject matter experts. Bundled typical thing presses are getting obvious as cordial rewards now, with winning use being tracked down in the relationship of loved ones. Individuals have begun to see standard thing pulverizes as whenever rewards, with utilization being spread fundamentally reliably between the early

daytimes, evenings and nights. Moreover, mature right presently is as a lot of slanted to tasting customary thing presses as carbonated drinks, with young people driving the most unbelievable essentials. One can see the making configuration in school flasks, Office cafeteria, and so on open with normal thing crushes standard thing drinks which was feeling the flight of quite a long while back.<sup>[5]</sup>

Developing concerns connecting with thriving and eat less will anticipate an immense work watching out, as clients make some separation from things that are seen as being tragic, for example, carbonated soda pops, towards dynamically normal various decisions, for example, customary thing crushes. Specifically, more youthful clients could see ordinary thing press as a strong strategy for aiding their utilization of regular things.

India has seen radical move being used of regular thing press/drinks over the nonstop past. Quick expanding working class individuals that is right now around 350 million; broadened urbanization and rising discretionary capital are a piece of the basic reasons adding to this change. As indicated by the CII, FMCG Roadmap to 2020 report, Indian non-mixed rewards include was assessed at around Rs 216 billion out of 2008 and is check to make at a CAGR of around 15% during 2009-2012. Making flourishing care among India's youngsters has perceived an upset in the Indian customary thing press/drinks advance. According to marketresearch.com report, the Indian juices portrayal showed serious areas of strength for a CAGR in volume deals more than 2004-09 and is overviewed to make at a CAGR of 7.8% during 2009-14. There is a more unquestionable insight of the 'reasonable' advantages of thriving prizes and a more obvious status to pay a premium for such drinks. With these solid drivers of progress, it isn't confusing that the enjoy business India has started answering with things that are displayed clearly on a flourishing and prosperity stage. Natural product juices are turning into a significant piece of the cutting edge diet in numerous networks. It goes about as a nutritious drink and can have a critical impact in a solid eating regimen since they offer great taste and various supplements tracked down normally in organic products. Juices are accessible in their normal fixations or in handled structures. Juices are ready by precisely pressing new natural products or might be separated by water. Juices are sans fat, supplement thick refreshments that are plentiful in nutrients, minerals and normally happening phytonutrients that add to great wellbeing. For instance, squeezed orange is plentiful in L-ascorbic acid, a great wellspring of bio-accessible cell reinforcement phytochemicals and essentially further develops blood lipid profiles in individuals impacted with

hypercholesterolemia. Natural product juices advance detoxification in the human body .The elements of handled juices contain principally water, sugar, additives, variety and natural products pulps. The most usually utilized additives are benzoic corrosive, sorbic corrosive or sulfur dioxide. Regular tones, for example, anthocyanins and betanin are utilized. Corrosive is a fundamental widespread constituent of Juice and the most corrosive generally utilized is citrus extract.

## Observations

Observations are made for all fruit juice samples for pH, sugar content, citric acid content and ascorbic acid content.

# Observations For pH

1. pri of Orange Juice Samples	1.	pН	of O	range	Juice	Samp	les
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Juice Name	pН
Fresh orange juice	4.12
B-Natural orange juice	3.63
Vivos orange juice	2.74

## 2. pH of Grape Juice Samples

Juice Name	рН
Fresh grape juice	3.86
B-Natural grape juice	3.00
Vivos grape juice	3.10

## 3. pH of Pineapple Juice Samples

Juice Name	рН
Fresh pineapple juice	3.61
Tropicana pineapple juice	3.20
Treat pineapple juice	3.12

## 4. pH of Pomegranate Juice Samples

Juice Name	pН
Fresh pomegranate juice	3.40
Real pomegranate juice	3.00
B-Natural pomegranate juice	2.96

## **Observations For Sugar Contents**

#### • For Standard Sugar Solution

Sample (Sugar Conc.)	Weight of empty specific gravity bottle	Weight of bottle + 10ml solution	Mass of Solution	Density g/l (M/V)
0%	17.60	26.60	9.00	0.90
5%	17.60	27.00	9.40	0.94
10%	17.60	27.30	9.70	0.97
15%	17.60	27.40	9.80	0.98
20%	17.60	27.70	10.10	1.01

## • For Pomegranate Juice

Juice Name	Weight of empty specific gravity bottle	Weight of bottle + 10ml solution	Mass of Solution	Density g/l (M/V)	Sugar ( in %)
<b>B-Natural</b>	17.60	27.50	9.90	0.99	18
<b>Real Juice</b>	17.60	27.60	10.00	1.00	19
Fresh Juice	17.60	27.20	9.60	0.96	9

## • For Grape Juice

Juice Name	Weight of empty specific gravity bottle	Weight of bottle + 10ml solution	Mass of Solution	Density g/l (M/V)	Sugar ( in %)
Vivos Juice	17.60	27.50	9.90	0.99	18
<b>B-Natural</b>	17.60	27.60	10.00	1.00	19
<b>Fresh Juice</b>	17.60	27.10	9.50	0.95	8

# **Results And Discussion**

Following results from fresh juice samples and artificial juice samples are concluded for the 4 parameters: pH, sugar content, citric acid concentration and ascorbic acid contents.

# For pH

pH is determined individually for each juice sample i.e. orange juice, grape juice , pineapple juice and promegrate juice.

• pH values determined for various orange juice samples are found to be highest for fresh orange juice with H value 1.4;followed by B-Naural having pH value 3.63 and is least for vivos orange juice.

• Fresh grape juice sample has highest pH value of .86 whereas b-natural has least pH which is .0 vivos grape juice has intermediate value of pH between these 3 samples and the value is 3.10.

• Treat pineapple juice has lowest pH value of 3.12 and fresh pineapple juice has highest pH value 3.61.

• Fresh pomegranate juice sample has highest pH value which is 3.40;followed by real juice having H value is .0, which is further followed by B-natural juice with pH 2.96.

## For Sugar Content

With the help of the standard graph, which is given below, sugar content of various juice samples are determined.



- Fresh pomegranate juice has found to has lowest sugar concentration which is 9% as compared to b-natural and real juice with sugar concentration 18% and 19% respectively.
- In case of grape juice also, b-natural and vivos grape juice have sugar concentration 19% and 18% respectively, whereas fresh grape juice sample has lowest sugar concentration which is 8%.
- Tropicana pineapple juice has 9% sugar concentration followed by treat juice with sugar concentration 8%. Fresh pineapple juice has lowest sugar concentration which is 5%.
- Fresh orange juice has lowest sugar i.e. 5% whereas vivos and b-natural juice samples have 10 and 8% sugar concentration respectively.

## For Citric Acid Concentration

Concentration of citric acid is observed in terms of molarity.

• For various orange juice samples, citric acid concentration is observed to be highest I fresh orange juice with value 0.09 M ; followed by b-natural orange juice having 0.06M citric acid concentration which is further followed by citric acid concentration of vivos orange juice which is 0.04 M.

• Vivos grape juice has found to be lowest citric acid concentration which is 0.03M, whereas fresh grape juice has citric acid concentration having value 0.07M.

• 0.1M citric acid concentration is observed for fresh pineapple juice which is followed by 0.07 M citric acid concentration for Tropicana sample and 0.06M concentration is observed for treat juice.

• Fresh pomegranate juice has highest value of citric acid concentration i.e. 0.09M . B-Natural and real juice sample have citric acid concentration is 0.04M.

## For Ascorbic Acid Concentration

With the help of standard graph given below average value of mg AA/drop of iodine is calculated; which is used for determination of ascorbic acid concentration in juice samples.

• Fresh grape juice sample has highest ascorbic acid concentration with value 0.37 mg AA/drop of iodine, followed by b-natural juice having ascorbic acid concentration 0.36mg AA/drop of iodine , which is further followed by vivos grape juice having least ascorbic concentration which is 0.35 mg AA/drop of iodine.

• Ascorbic acid concentration is highest for fresh pomegranate juice with value 0.34mg AA/drop of iodine and ascorbic acid. Concentration is lowest for b-natural juice sample with concentration 0.29mg AA/drop of iodine.

• Fresh orange juice has 0.44mg AA/drop of iodine ascorbic acid concentration which is followed by b-natural juice with ascorbic acid concentration 0.42mg AA/drop of iodine. Vivos juice sample has lowest ascorbic acid concentration which is 0.41 mg AA/drop of iodine.



• 0.4mg AA/drop of iodine is ascorbic acid concentration for fresh pineapple juice sample. Tropicana and treat juice sample have same ascorbic acid concentration value which is 0.39 mg AA/drop of iodine.

## Conclusion

Following are the concluding points taken into consideration after the conduct of the research study

After conducting the observational survey & interacting with 203 respondents in the city of Bangalore, it is observed that there is a great potential market for fruit-based beverages because of the significant health advantages offered by them. It is been observed that households are aware of the options available in the market and fruit-based beverage have a good market acceptance. Fruit beverages have started becoming an important part of the daily needs of the households on social occasions and during entertainment. With the increased importance of health and nutrition, changing life styles and higher incomes, the Indian beverage market offers numerous opportunities for new products and product modifications.

Fruit beverages have become an important part of Indian households, especially urban & semi urban household as it provides vitality and energy, relation and nutrient benefits etc every passing day. There are many factors that influence the buying behavior and attitude of a customer during his/her buying process including demographic factors like age, marital status, monthly household income, occupation etc. and other factors like influence of friends and family, advertisement through various media etc.

These key factors should be seriously considered to attain an optimum market space, as in today's world catering to a customer's needs is very essential to formulate a strategic marketing plan that enhance the market share. Such novel strategies should also be backed by efficient on ground customer support and robust R & D for product innovation.

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