

**Comparative Study of Packaged Fruits Juice in
Bikaner City of Rajasthan**

**राजस्थान के बीकानेर शहर में डिब्बाबंद फलों के रस का
तुलनात्मक अध्ययन**

Atul Kumar Mishra

Project Report

Master of Business Administration

(Agri Business)



उत्तमा वृत्तिस्तु कृषिकर्मेव

2018

Institute of Agri Business Management
Swami Keshwanand Rajasthan Agricultural University,
Bikaner (Rajasthan) 334006

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Project Report

Submitted to the

Swami Keshwanand Rajasthan Agricultural University,

Bikaner

in partial fulfilment of the requirement for

the degree of

Master of Business Administration

(Agri Business)

By

Atul Kumar Mishra

2018

Institute of Agri Business Management

Swami Keshwanand Rajasthan Agricultural University, Bikaner

Date:

Certificate – I

This is to certify that **Mr. Atul Kumar Mishra** had successfully completed the Comprehensive Examination held on 28/04/2016 as required under the regulation for the degree of Master of Business Administration (Agri Business)

DIRECTOR

Institute of Agri Business Management
Swami Keshwanand Rajasthan Agricultural University, Bikaner

Date:

Certificate – II

This is to certify that this Project Report entitled “**Comparative Study of Packaged Fruit Juice in Bikaner City of Rajasthan**” submitted for the degree of **Master of Business Administration (Agri Business)** in the field of Agri embodies bonafide project work carried out by **Mr. Atul Kumar Mishra** under my guidance and supervision and that no part of this project report has been submitted for any other degree. The assistance and help received during the course of investigation have been fully acknowledged. The evaluation committee also approved the draft of this Project Report on 11/05/2018.

(Satyveer Singh Meena)

Major Advisor

Director

Institute of Agri Business Management
Swami Keshwanand Rajasthan Agricultural University, Bikaner

Date:

Certificate- III

This is to certify that project report entitled “**Comparative Study of Packaged Fruit Juice in Bikaner City of Rajasthan**” submitted by **Mr. Atul Kumar Mishra** to the Swami Keshwanand Rajasthan Agricultural University, Bikaner in partial fulfilment of requirement for degree of Master of Business Administration (Agri Business) after recommendation by the external examiner was defended by the candidate before the following members of the evaluation committee. The performance of the candidate in the oral examination on his project report has been found satisfactory. We recommend that the project report be approved.

Advisory Committee:

(Satyveer Singh Meena)

Major Advisor

(Aditi mathur)

Member

(Madhu Sharma)

Member

(Neena Sareen)

Dean PGS Nominee

Recommended for approval

Director

APPROVED

Dean,

Post Graduate Studies

Institute of Agri Business Management
Swami Keshwanand Rajasthan Agricultural University, Bikaner

Date:

Certificate – IV

This is to certify that **Mr. Atul Kumar Mishra** of the Institute of Agri Business Management, Bikaner has made all the corrections/modifications in his project report entitled “**Comparative Study of Packaged Fruit Juice in Bikaner City of Rajasthan**” which were suggested by the external examiner and approved by the committee constituted for the purpose in the oral examination held on 02/10/2018. The final copy of the project report duly bound and corrected were submitted on And enclosed here with for approval.

Advisory Committee:

(Satyveer Singh Meena)

Major Advisor

(Aditi mathur)

Member

(Madhu Sharma)

Member

(Neena Sareen)

Dean PGS Nominee

Recommended for approval

Director

APPROVED

Dean,
Post Graduate Studies

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(Atul Kumar Mishra)

Date:

Place: Bikaner

Contents

Sr. No.	Title	Page No.
	List of Tables	
	List of Figures	
	List of Appendices	
	List of Abbreviations	
	Executive Summary (English)	
	Executive Summary (Hindi)	
1.	Introduction	1-11
2.	Review of Literature	13-20
3.	Project Methodology	21-24
4.	Results and Discussion	25-42
5.	Conclusions and Recommendations	43-45
6.	Bibliography	47-49
	Appendices	i-iv

List of Tables

Table No.	Title	Page No.
1.	Major fruit juice brands in Bikaner city	29
2.	Reason for the purchasing of packed fruit juice	41

List of Figures

Figure No.	Title	Page No.
1.	Country wise average per capita juice and nectar consumption (litres)	4
2.	Composition of fruit juice industry	6
3.	Beverage market segment in India	7
4.	Share of flavoured juice drinks market, 2016	8
5.	Flavor wise nectar market, 2016	9
6.	Flavor wise market share of 100 per cent Juice, 2016	9
7.	Expected consumption of fruit beverages in India	10
8.	Age group of consumers	25
9.	Educational qualification of the consumers in the study area	26
10.	Classification of consumers on the basis of gender	27
11.	Juices preferred by consumer	28
12.	Most preferred fruit juice brand	30
13.	Most Preferred flavour of packed fruit juice in the market	31
14.	Consumers Preference for Packaging	32
15.	Preferred quantity of packed fruit juices in study area	33
16.	Most aware brand of packed fruit juice	34
17.	Source of knowledge regarding packaged fruit juice	35
18.	Consumers' awareness regarding different parameters of packaged fruit juice	36
19.	Perception of consumers towards packed fruit juice	37

20.	Perception of retailers towards packed fruit juice	38
21.	Nature of consumers' buying behavior	39
22.	Buying pattern of consumers regarding packed fruit juice	40

List of Appendices

Sl. no	Name of Appendix	Page number
1.	Questionnaire for consumers	i-iii
2.	Questionnaire for retailers	iv

List of Abbreviations

AGMARK	Agricultural Marketing
CAGR	Compound Annual Growth Rate
EU	European Union
FDA	Food and Drug Administration
FSSAI	Food Safety and Standards Authority of India
HPP	Hydrostatic Pressure Processing
ITC	Indian Tobacco Company Limited
MFJB	Milk Fruit Juice Beverages
MRP	Maximum Retail Price
PEFs	Pulsed- Electric Fields
TV	Television
USA	United States of America

Executive summary

India is a market of diversity with regards to incomes, price, products, culture and points of preferences and a marketer has to get use to these diverse characteristics of the market. Fruit juice is to great extent considered as a luxury not a necessity in our society, surely but slowly things are changing mainly in the urban and semi urban areas, where the population is getting more and more health conscious and are realizing the important nutrient values of fruit and are making them a part of their daily diet. The major growth drivers in fruit juice market are, increase in health consciousness among consumers, increase in disposable incomes, and more sophisticated cocktail culture.

The study was conducted in the Bikaner city of Rajasthan to get an insight into the consumer's buying behavior and retailers preferences regarding fruit juices. In this research it was tried to know the perception of consumers and retailers regarding the Tropicana, Real, Maaza, Frooti juice, etc. The objectives of the study were to identify major juice brands and flavors / variants preferred by consumers, to study consumer awareness about packaged fruit juice, to understand the perception of consumers and retailers towards packed fruit juice and to identify the factors influencing the consumers buying behaviour. For this purpose 80 consumers and 20 retailers were selected from the study area using convenience and judgmental sampling.

It was found from the study that consumer mainly prefer Slice brand over other brands under consideration, which is the product from Pepsico Ltd., followed by Maaza. Tropicana having less customers in the study area as it is costly. The most preferred flavour was orange followed by mango. Tetra pack was the most preferred packaging in the study area and consumers prefer cans very less. The most preferred quantity among the consumers was 200-250 ml.

Consumers were interested to see the expiry date on the product, origin of the product, customer care numbers for problem redressal, nutritional value of the product, etc.

Regarding perception about the competing brands available in the market in terms of price and quality, Tropicana was superior among all other competing brands. Frooti and Slice were perceived low quality by the consumers both in terms of low price and quality among consumers with a large market share. In terms of service and margin to the retailers, Maaza and Slice were superior. Frooti was perceived poor by the retailers both in terms of service and margin among retailers with a less market share compared to Maaza and Slice. Consumer gives higher importance to flavour or taste of the purchased product. Respondents gave least preference to packaging of the product as the packaging directly affects the Maximum Retail Price (MRP) of the product which will in turn give rise to the spending on the product.

कार्यकारी सारांश

भारत आय, मूल्य, उत्पादों, संस्कृति और प्राथमिकताओं के मूल्य बिंदुओं के संबंध में विभिन्नता का बाजार है और एक विपणक को बाजार की इन विविध विशेषताओं का उपयोग करना है। रस को हमारे समाज में एक विलासिता के रूप में माना जाता है। निश्चित रूप से, लेकिन धीरे-धीरे शहरी और अर्ध शहरी क्षेत्रों में चीजें बदल रही हैं, जहां जनसंख्या अधिक से अधिक स्वास्थ्य जागरूक हो रही है और फल के महत्वपूर्ण पोषक तत्वों को महसूस कर रही है और उन्हें अपने दैनिक आहार का हिस्सा बना रहे हैं। फलों के रस बाजार में प्रमुख विकास चालक, उपभोक्ताओं के बीच स्वास्थ्य चेतना में वृद्धि, प्रयोज्य आय में वृद्धि, और अधिक परिष्कृत मिश्रित संस्कृति हैं।

यह अध्ययन राजस्थान के बीकानेर शहर में फलों के रस के संबंध में उपभोक्ता के खरीद व्यवहार और खुदरा विक्रेताओं की प्राथमिकताओं में अंतर्दृष्टि प्राप्त करने के लिए किया गया था। इस शोध में ट्रोपिकाना, रियल, माजा, फ्रूटी इत्यादि के बारे में उपभोक्ताओं और खुदरा विक्रेताओं की धारणा को जानने की कोशिश की। अध्ययन के उद्देश्य उपभोक्ताओं द्वारा पसंदीदा उपभोक्ता जागरूकता का अध्ययन करने के लिए और पसंदीदा प्रमुख रस ब्रांडों और स्वाद / प्रकारों की पहचान करना, पैक किए गए फलों के रस की ओर उपभोक्ताओं और खुदरा विक्रेताओं की धारणा को समझने और उपभोक्ताओं को व्यवहार करने वाले व्यवहार को प्रभावित करने वाले कारकों की पहचान करने के लिए था। इस उद्देश्य के लिए सुविधा और न्यायिक नमूनाकरण का उपयोग करके अध्ययन क्षेत्र से 80 उपभोक्ताओं और 20 खुदरा विक्रेताओं का चयन किया गया था।

अध्ययन से यह पाया गया था कि मुख्य रूप से विभिन्न ब्रांडों की तुलना में स्लाइस ब्रांड उपभोक्ताओं द्वारा सबसे अधिक पसंद किया गया था, जो पेप्सिको लिमिटेड का उत्पाद है, स्लाइस के बाद में माजा और ट्रोपिकाना के कम ग्राहक हैं क्योंकि यह महंगा है। सबसे पसंदीदा स्वाद नारंगी हैं और नारंगी के बाद आम स्वाद को उपभोक्ता पसंद करते हैं। टेरा पैक अध्ययन क्षेत्र में सबसे पसंदीदा पैकेजिंग था और उपभोक्ता डिब्बा पैकेजिंग को सबसे कम पसंद करते हैं। उपभोक्ताओं के बीच सबसे पसंदीदा मात्रा 200-250 मिलीलीटर थी।

उपभोक्ताओं को उत्पाद की समाप्ति तिथि, उत्पाद की उत्पत्ति, समस्या निवारण के लिए ग्राहक देखभाल संख्या, उत्पाद का पोषण मूल्य इत्यादि देखने में दिलचस्पी थी।

मूल्य और गुणवत्ता के मामले में बाजार में उपलब्ध सभी प्रतिस्पर्धी ब्रांडों की तुलना में ट्रोपिकाना श्रेष्ठ है। उपभोक्ताओं के बीच कम कीमत और गुणवत्ता के मामले में फ्रूटी और स्लाइस को कम गुणवत्ता माना जाता था हालांकि उनके बाजार हिस्सेदारी अधिक थी। खुदरा विक्रेताओं की धारणा के अनुसार सेवा और मुनाफ़ा के मामले में, माजा और स्लाइस बेहतर थे। माजा और स्लाइस की तुलना में कम बाजार हिस्सेदारी के साथ खुदरा विक्रेताओं के बीच सेवा और मार्जिन के मामले में

फ्रूटी को न्यूनतम माना जाता था। उपभोक्ता खरीदे गए उत्पाद स्वाद के लिए उच्च महत्व देता है। उत्तरदाता उत्पाद की पैकेजिंग को कम वरीयता देते हैं क्योंकि पैकेजिंग उत्पाद की अधिकतम खुदरा मूल्य (एमआरपी) को सीधे प्रभावित करती है जो बदले में उत्पाद खर्च की लागत में वृद्धि करती है।

1. INTRODUCTION

1.1 Introduction of fruit juices

Juice is a liquid that is naturally contained in fruit or vegetable tissue. Juice is prepared by mechanically squeezing or macerating fresh fruit or vegetables flesh without the application of heat or solvents. For example, orange juice is the liquid extract of the fruit of the orange tree. Juice may be prepared in the home from fresh fruits and vegetables using a variety of hand or electric juicers. Many commercial juices are filtered to remove fiber or pulp, but high pulp fresh orange juice is a popular beverage. Juice may be marketed in concentrate form sometimes frozen, requiring the user to add water to reconstitute the liquid back to its 'original state'. However, concentrates generally have a noticeably different taste from that of their 'fresh squeezed' counterparts. Other juices are reconstituted before packaging for retail sale. Common methods for preservation and processing of fruit juices include canning, pasteurization, freezing, evaporation and spray drying.

1.1.1 Labeling of fruit juices

Most nations define a standard purity for a beverage to be considered a 'fruit juice'. This name is commonly reserved for beverages that are 100 per cent pure fruit juice. In the United Kingdom the name of fruit or fruit followed by juice can only legally be used to describe a product which is 100 per cent fruit juice, as required by the Fruit Juices and Fruit Nectars (England) Regulations and the Fruit Juices and Fruit Nectars (Scotland) Regulations 2003. However a juice made by reconstituting concentrate can be called juice. A product described as the 'nectar of a fruit must contain a minimum of juice between 25 per cent and 50 per cent for different fruits. A juice or nectar including concentrate must state that is does. The term 'juice drink' is not defined in the regulations and can be used to describe any drink which includes juice, however little comparable rules apply in all EU member states in their respective languages. In the USA fruit juice can

only legally be used to describe a product which is 100 per cent fruit juice. A blend of fruit juices with other ingredients, such as high-fructose corn syrup, is called a juice cocktail or juice drink. According to the Food and Drug Administration (FDA), the term 'nectar' is generally accepted in the U.S and in international trade for a diluted juice to denote a beverage that contains fruit juice or puree, water, and which may contain artificial sweeteners. In New Zealand and Australia particularly (and others) juice denotes a sweetened fruit extract, whereas nectar denotes a pure fruit or vegetable extract. Fruit juice labels may be misleading, with juice companies actively hiding the actual content. 'No added sugar' is commonly printed on labels, but the products may contain large amounts of naturally occurring sugars however, sugar content is listed with other carbohydrates on labels in many countries. Some carbonated beverages, not described as fruit juice, contain fruit juice (Such as Mountain Dew) which contains orange juice.

1.1.2 Health benefits of fruit juices

Juices are often consumed for their perceived health benefits. For example, orange juice is rich in vitamin C, folic acid, potassium, is an excellent source of bio available antioxidant phytochemicals and significantly improves blood lipid profiles in people affected with hypercholesterolemia. Prune juice is associated with a digestive health benefit. Cranberry juice has long been known to help prevent or even treat bladder infections, and it is now known that a substance in cranberries prevents bacteria from binding to the bladder. The high sugar content of fruit juices is often not realized- many fruit juices have higher sugar (fructose) content than sweetened soft drinks. Grape juice has 50 per cent more sugar than Coca Cola. Fruit juice consumption overall in Europe, Australia, New Zealand and the USA has increased in recent years, probably due to public perception of juices as a healthy natural source of nutrients and increased public interest in health issues. Indeed, fruit juice intake has been consistently associated with reduced risk of many cancer types, might be protective against stroke and delay

the onset of alzheimer's disease. The perception of fruit juice as equal in health benefit to fresh fruit has been questioned, mainly because it lacks fiber and has often been highly processed. High-fructose corn syrup, an ingredient of many juice cocktails, has been linked to the increased incidence of type II diabetes. High consumption of juice is also linked to weight gain, but fruit juice consumption in moderate amounts can help children and adults meet daily recommendations for fruit consumption, nutrient intake and calories.

1.2 Introduction to Fruit Juice Market in the World

Global fruit juice market has grown at a CAGR of around 1.6 per cent during 2010-2017, reaching a volume of 44.6 Billion litres in 2017. Fruit juice is a liquid that is naturally contained in fruits. It is extracted by mechanically squeezing or macerating the fruits. It is commonly consumed as a beverage or used as an ingredient or flavouring agent in foods. Owing to its refreshing nature and nutritional benefits, the fruit juice market currently represents a multibillion dollar industry. According to the report, the market is further expected to grow at a CAGR of 1.7 per cent during 2018-2023, reaching a volume of around 49.3 Billion litres by 2023.

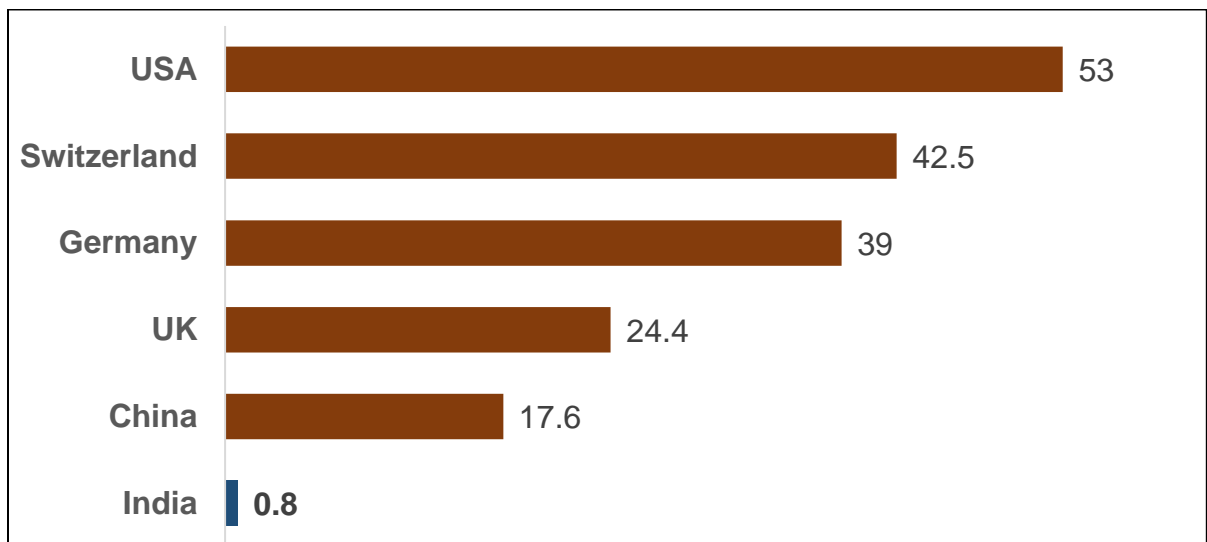
The global market for fruit juice is driven by several growth-inducing factors. The primary factor for the growth is the rising health concerns, as a result of which the consumers are now shifting from carbonated drinks to organic beverages which are free from added sugar, flavours and preservatives. This has increased the demand for fruit juice globally. Some of the other factors which have accelerated the demand for fruit juice are increasing disposable incomes, value addition, product innovation and growth in emerging markets.

Orange juice represents the leading market segment, accounting for more than 35 per cent of global fresh juice sales. The fruit and vegetable juice segment is characterized by intense competition and fragmentation. A large share of the market is held by private label manufacturers. Leading companies operating in

the global fruit and vegetable juices market include Cadbury, Tropicana, Odwalla, Del Monte Foods, Minute Maid, Ocean Spray Cranberries, Nestle, Welch Foods and Mott's.

USA is the largest consumer of fruit juice and nectar in terms of per capita availability, followed by Switzerland. India is third largest beverage market but per capita fruit juice consumption in India was 0.8 litres only. The consumption in India suggests the potential for substantial growth in the juice market in India over the next decade. The leading countries in the world in terms of per capita consumption of fruit juice are given in figure 1.

Fig 1: Country wise average per capita juice and nectar consumption (litres) per year



Source: <http://www.euromonitor.com/juice-in-india/report>

Figure 1 shows the average per capita juice and nectar consumption by the leading countries in the world. USA is leading in the per capita consumption of juice and nectar with 53 litres. Switzerland and Germany were the next leading consumers with 42.5 and 39 litres respectively. India having a per capita juice and nectar consumption of 0.8 litre only.

1.3 Introduction of Fruit Juice Companies in India

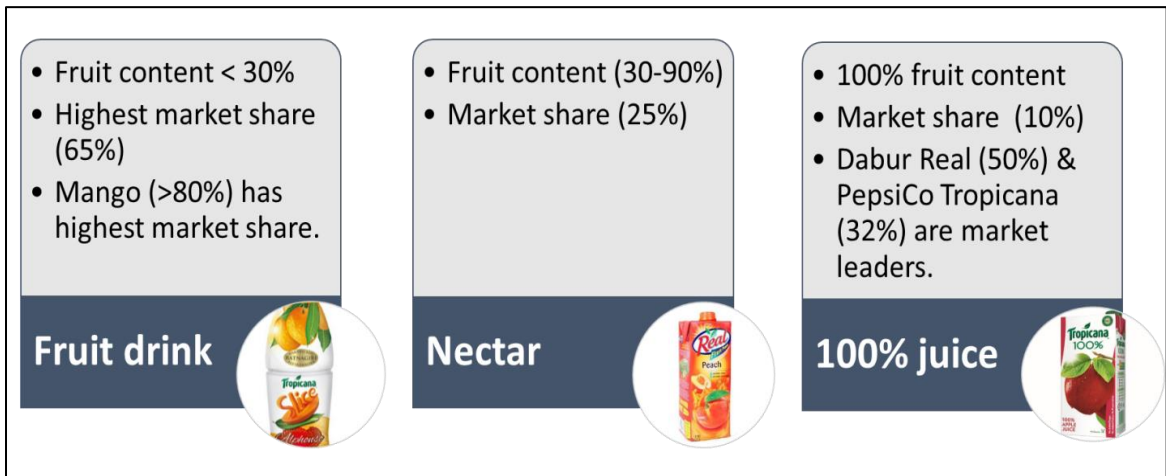
India is a market of diversity diverse with regards to incomes, price points of products, culture and preferences and a marketer has to get use to these diverse characteristics of the market. Drinking juice is not a part of our culture. We drink water with our meal but in best one starts the day with breakfast and a glass of juice. Juice is to great extent considered as a luxury not a necessity in our society, surely but slowly things are changing mainly in the urban and semi urban areas, where the population is getting more and more health conscious and are realizing the important nutrient values of fruit and are making them a part of their daily diet. The companies organize various promotional activities on time to time mainly to increase sampling and to educate the consumers about packaged fruit juice that it is as pure and nutritious as fresh juice which is perceived as fresh as it is extracted in their presence i.e. actual or assumed. There are two main brands in this segment of non-carbonated drink markets; they are 'Real' from Dabur and 'Tropicana' from PepsiCo. These two players command around 80 per cent market share in the organized sector. It can be observed that their industry growing and new players entering in the market. In recent times it has seen the entries of some international brands, like Berry (Australia), Ballantine (Australia) and Tipco (Thailand), with the intention to strengthen their hold in India and to grow with the market India is the second largest for foods and vegetables in the world. Consumer still prefers to buy juice from road side vendors even if juices are unhygienic. The major growth drivers in fruit juice market are, increase in health consciousness among consumers, increase in disposable incomes, and more sophisticated cocktail culture.

1.3.1 Market structure of packaged fruit juice in India

The packaged fruit juices market can be divided into three subcategories, viz. fruit drinks, juices, and nectar drinks. Figure 2 shows fruit drinks, which have a maximum of 30 percent fruit content, are the highest-selling category, with a 65

per cent share of the market. Frooti, Jumpin, Maaza, etc. are the most popular products in this category. In contrast, nectar drinks have between 30-90 per cent fruit content, but account for only about 25 per cent of the market. Fruit Juices, on the other hand, are 100 per cent composed of fruit content, and claim a 10 per cent market share at present.

Fig 2: Composition of fruit juice industry



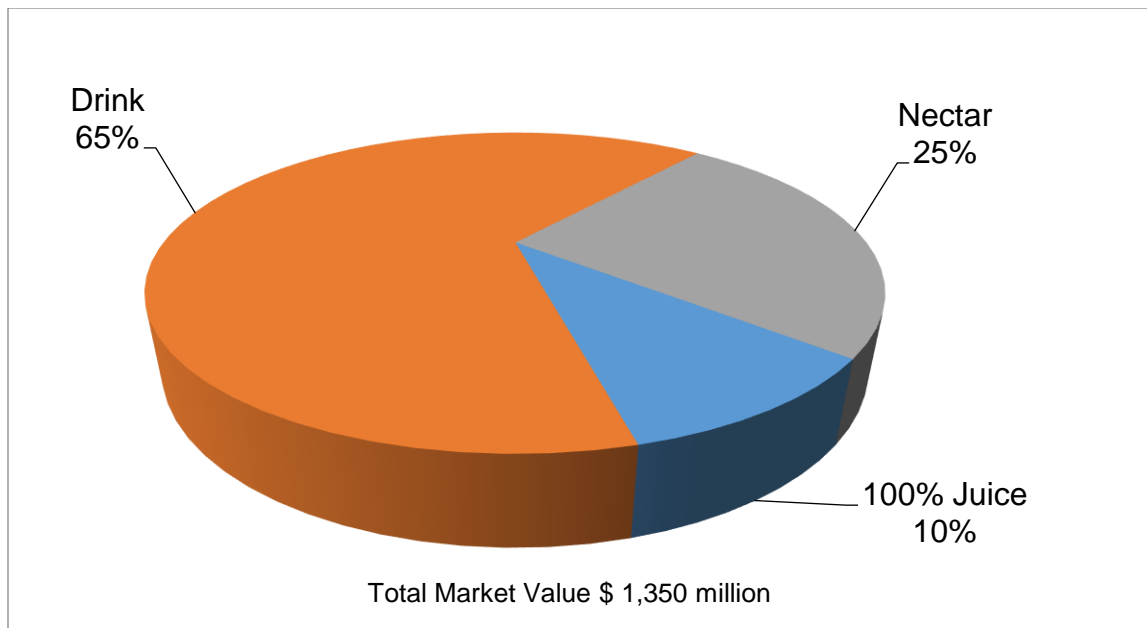
Source: <http://www.euromonitor.com/juice-in-india/report>

The major players in the industry are Dabur, Coca-Cola, PepsiCo, ITC Ltd, Parle Agro Products, Godrej Industries, Future Group etc. Dabur is the market leader in the Indian packaged juices market with its brands Real and Real Active. It accounts for 50 per cent of the total packaged juices market, and is followed by PepsiCo with a 32 per cent and Parle Agro 7 per cent market share. Some of the other brands of fruit juices and drinks include Frooti, Appy Fizz, Mazza, Minute Maid, Slice, Fresh Gold, and Del Monte. Considering the attractiveness of the segment, such diversified consumer food companies as ITC are working towards a foray into packaged juices. The fruit drink market has grown at a 20 per cent to 25 per cent rate.

1.3.2 Fruit beverage market in India

Indian fruit juice industry is mainly divided into three parts, viz., fruit drinks, nectars and 100 per cent juice. The composition of these categories in terms of market share was given in figure 3.

Fig 3: Beverage Market Segment in India



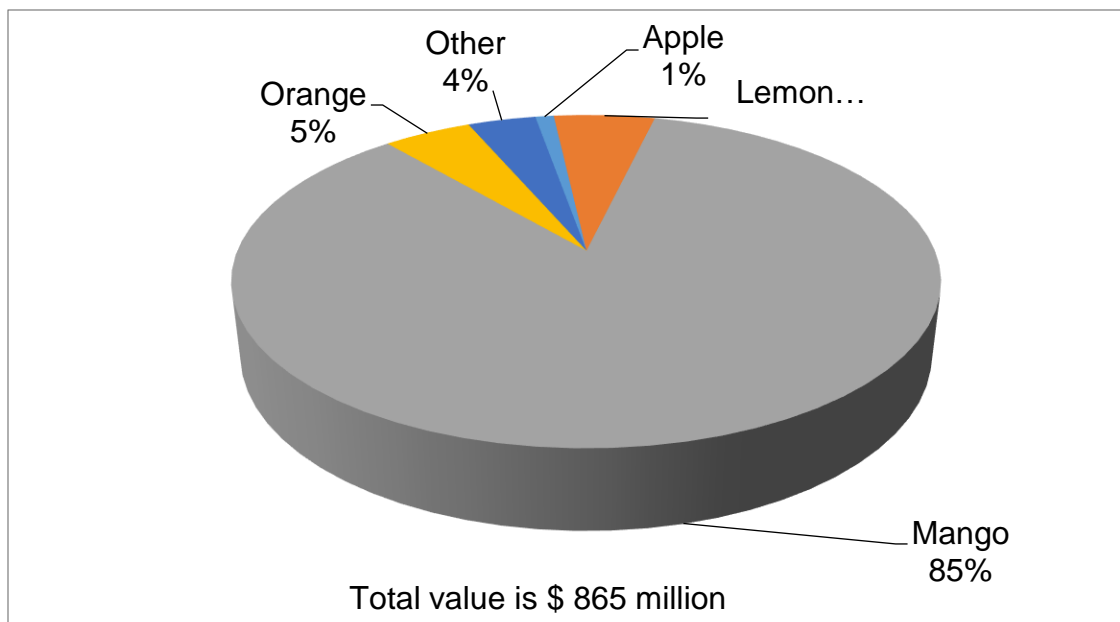
Source: <http://www.euromonitor.com/juice-in-india/report>

Figure 3 shows the total market cap of Indian fruit juice industry till ending year 2016. It was estimated to \$ 1,350 million. Out of this, the major share is occupied by fruit drinks (like Mazaa, Slice, Appy fizz fruit content is less than 30%) with a value of \$ 865 million (65%) followed by nectar with a value of \$ 350 million (25%) and 100 per cent juice with a value of \$ 135 million (10% which has less market share compared to others). The Indian fruit beverage industry is growing with a CAGR of 22 per cent.

1.3.3 Share of flavoured juice drinks market in India

Major flavours of fruit juices available in the market are mango, orange, apple, lemon, etc. The total composition of these fruit juices in the Indian market is given in figure 4.

Fig 4: Share of flavoured juice drinks market, 2016



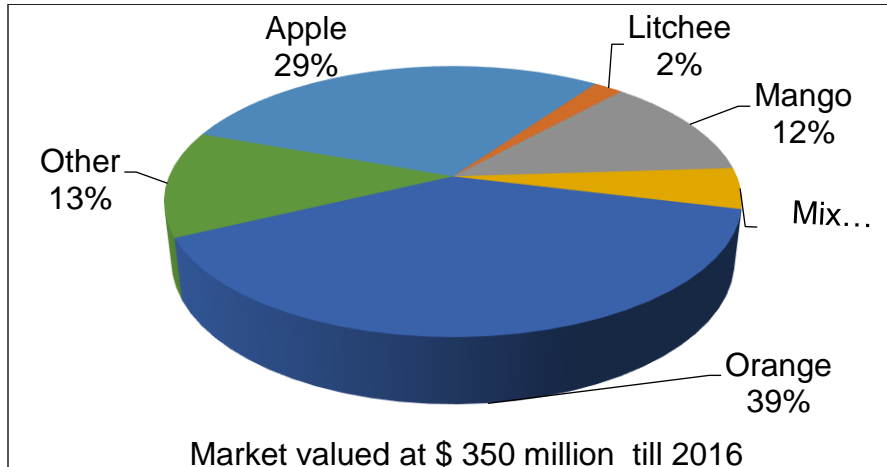
Source: <http://www.euromonitor.com/juice-in-india/report>

Figure 4 shows that, the largest share of fruit drinks is covered by mango flavoured juice (85%) followed by orange flavoured juice (5%), lemon flavoured juice (5%). While apple flavoured juice accounts for only one per cent. Mango is most preferred flavour in India whereas, there is huge significant scope for other flavour juice like lemon, orange and apple.

1.3.4 Flavour wise nectar market in India

Major nectar flavours available in Indian market were mango, litchee, apple, orange, mix fruits, etc. the segment wise market share is given in figure 5.

Fig 5: Flavour wise nectar market, 2016



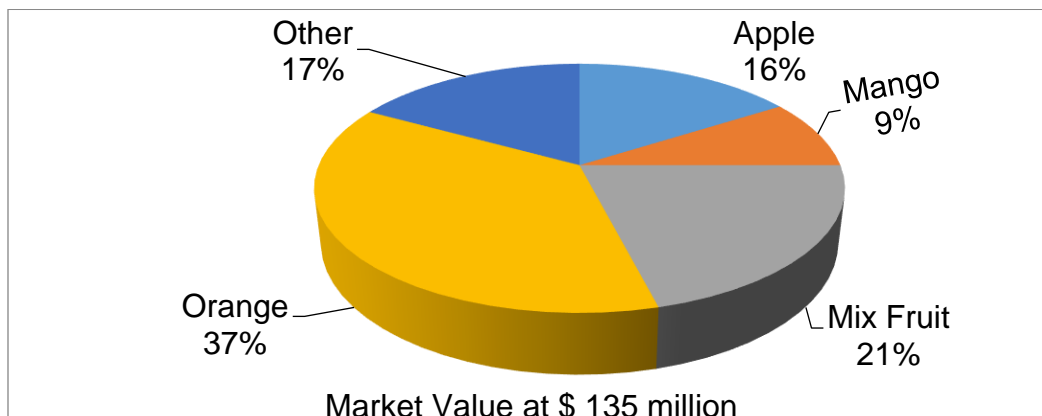
Source: <http://www.euromonitor.com/juice-in-india/report>

Figure 5 depicts that, nectar juice (contains fruit 30-90%) valued at \$ 350 million by 2016 in India. In this segment, majority of fruit juice is contributed by orange (39%), Apple (29%) and mango (12%).

1.3.5 Flavour wise market share of 100 per cent juice in India

100 per cent juices in Indian markets were available in different flavours. It includes apple, mango, orange, mix fruits and others. Category wise market share of the flavours in the 100 per cent juice segment is given in figure 6.

Fig 6: Flavour wise market share of 100 per cent juice, 2016



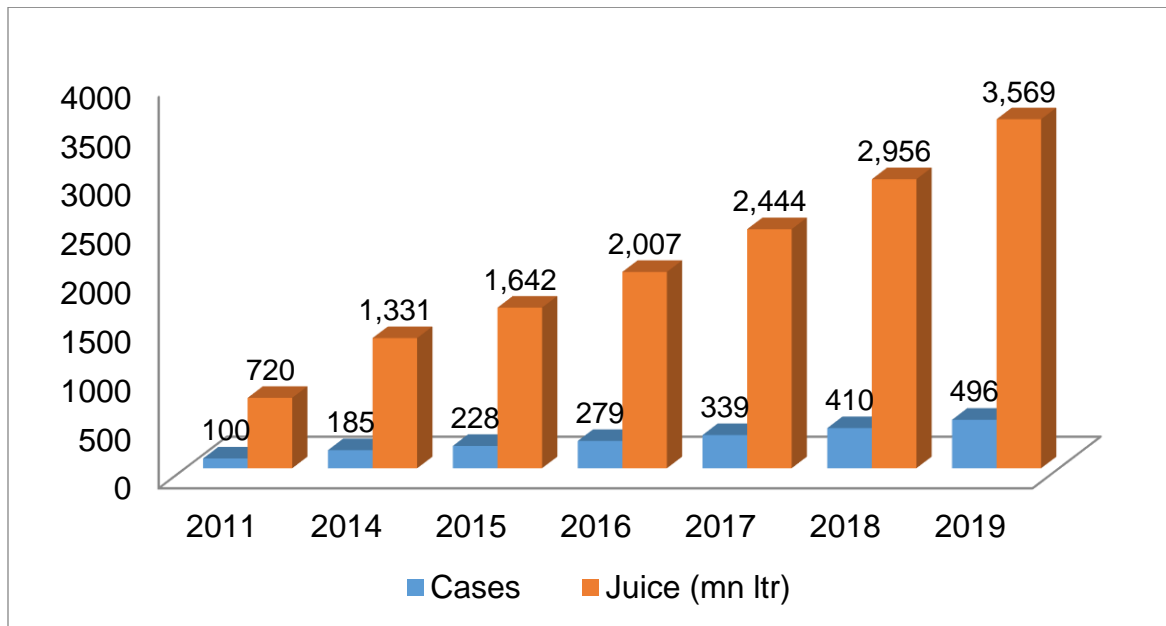
Source: <http://www.euromonitor.com/juice-in-india/report>

Figure 6 shows that, 100 per cent juice market is mainly occupied by orange (37%) followed by mix fruit (21%) and apple (16%). Mango flavours occupies only 9 per cent of total market share of 100 per cent juice industry and rest 17 per cent occupied by other flavours.

1.4 Expected Consumption of Fruit Beverage in India

The global juice market is on a continuous increase as consumption of juices is increasing due to health issues. The juice industry is facing a two-track growth story, as it is showcasing a slower growth in developed countries where packaged juices and fresh juices are already penetrated whereas on the other side, developing countries are showing a huge potential in the juice market with their shift from carbonated to non-carbonated beverages globally. India is third largest beverage market, the challenge is to draw this population towards fruit based beverage. The expected consumption of fruit beverage in India is shown in figure 7.

Fig 7: Expected consumption of fruit beverages in India



Source: <http://www.euromonitor.com/juice>

Figure 7 show that, there was an increasing trend in the consumption of fruit beverages in India over time both in terms of number of cases and quantity in litres. During 2007, the consumption was 50 million cases which was increased to 100 million cases in 2011 and it was reached to 410 cases during 2018. It is expected to reach 496 million cases by 2019 (CAGR 22%).The trend hints at a great potential for Juice as well as its ancillary industries in the country.

1.5 Purpose of the Study

The main aim of this research study was to analyse the preference of people (of different age, gender, occupation) on consumption patterns of fruit juices. It was observed during the last decade that, shift of people from fizzy drinks to fruit juices due to health benefits due to the rising number of health-conscious consumers who are giving a boost to fruit juices industry. It was evident by looking into the fact that, consumers willing to spend more for health benefits (18 percent increase in expenditure over fruit juices in 2014 as per Euro Monitor International).

1.6 Objectives of the Study

Four objectives have been identified for the study area which is as follows:

1. To identify major juice brands and flavours / variants preferred by consumers in Bikaner city
2. To study consumer awareness about packaged fruit juice
3. To understand the perception of consumers and retailers towards packed fruit juice
4. To identify the factors influencing the consumers buying behaviour

2. REVIEW OF LITERATURE

In this section, review of past research work on fruit juice markets, consumer behaviour, perception and awareness regarding fruit juices have been compiled to enable better understanding of the research project.

Shim *et al.* (2001) examined the Japanese fruit market and found that, as a result of production and distribution factors, represents a viable target for fruit exporters around the world. The study provides guidance for fruit exporters by identifying three fruit-specific segments based on fruit specific lifestyles factors. The process of identifying the life style factors relies on a cross-culturally validated theoretical framework developed within the context of food consumption. Cluster analysis is used to identifying the segments, creative/highly involved moderate involved and aesthetic uninvolved. These three segments of the everyday fruit consumption market are characterized in terms of fruit shopping, fruit consumption, and socio-economic factors.

Srinivasan and Till (2002) opinioned that, previous researchers have established that brand names are important in determining perceptions of brand quality and attitude towards the product. In this research they investigated the role of brand name in shaping consumers, evaluating of search, experience and credence attributes. The findings confirm that, prior trial, brand name increases consumers' perceptions of experience and credence attributes performance evaluations. However, prior to trial, brand name was found not to affect consumers' perceptions of search attributes. Trial of the brand was found to reduce the advantage branded product has in enhancing consumers perceptions of experience and credence attributes.

Deliza and Rosenthal (2003) stated on use of high hydrostatic pressure in food processing was of great interest because of its ability to inactivate food borne micro-organisms and enzymes, at low temperature, without the need for chemical preservatives. Pressure-treated foods have sensory properties similar to fresh products, which is a major advantage in juice processing as it matches consumer demand for healthy, nutritious and “natural” products. An important issue arises when we consider the acceptance of such products by the consumer. He discussed the use of pressure processing in fruit juice production from a consumer perspective, focusing on the Brazilian consumer perception and attitude, with respect to information presented on the fruit juice label about the technology. The results had shown that when the technology advantages were presented on pineapple juice labels, participants understood the benefits, and expressed a higher product intention to purchase.

Luckow and Delahunty (2004) examined the sensory impact of functional ingredients (e.g., probiotics, prebiotics, vitamins, and minerals) on the aroma and taste of orange fruit juices. A trained panel (n=10) performed a descriptive sensory analysis on four functional orange juices and seven conventional orange juices. The functional juices were described as possessing perceptible “dairy”, “medicinal” and “dirty” flavours, distinguishing them from the conventional juices. Subsequently, 100 consumers participated in a preference test, whereby five orange juices (three conventional and two functional) were ranked in order of consumer preference. Ranking decisions were based solely on the sensory characteristics of the juices, since product information was not provided. On an overall basis, consumers preferred the sensory characteristics of conventional juices. However, cluster analysis identified a small consumer segment (11%) that significantly preferred the sensory attributes of functional juices.

Daniells (2008) analysed the exiting buying behaviour of instant soft drinks and fruit products by individual households and to predict the demand for instant fruit products. Low cost of home preparation and differences in tastes were the major reasons for non-consumption, whereas ready availability and save time for preparation were the reason for consuming packaged fruit juice. Study shows that the high price and poor taste were the reasons for not purchasing particular brand whereas best quality, retailers influence and ready availability were considered for preferring particular brand of products by the consumers.

Kurtz (2008) stated that juice is currently on a negative trend as consumers are sensitive to price points. There is little differentiation in the consumer's mind between juice and nectars and therefore price point tends to be the key to the purchase decision. Brands' being on offer has become such a habit that consumers are blase towards price promotions, and private label is continuing to offer increasing competition to brands. The juice flavour profile is fairly conservative, with orange and apple accounting for three-quarters of consumption. The nectars category behaves in a very similar way to juice as the consumer and retailer alike do not really differentiate. Nectars are often single fruit flavours such as grapefruit, orange, mango, but flavour mixes are the best performing. Lifestyle changes including 'on the go' consumption and consumer nutritional requirements in countries with an aging population base, will continue to offer increasing potential for new juice blends and pack formats to address different drinking occasions and individual needs.

Bonilla (2010) indicated the factors responsible for brand preference in fruit juice industry, increasing competition, due to globalization is motivating many companies to base their strategies almost entirely on building brands. Brand preference means to compare the different brands and most preferred brand. This brand preference was influenced by various factors. In the identification of factors affecting the brand preference, it was concluded that Brand persona is the most effective factor that affects the brand preference. This Brand persona

deals with the personality aspects or the external attributes of brand, thus it can be said that consumer prefer any brand by looking at the external attributes of a brand.

Jan and Masih (2012) analyzed juice blending was one of the best methods to improve the nutritional quality of the juice. It can improve the vitamin and mineral content depending on the kind and quality of fruits. Apart from nutritional quality improvement, blended juice can be improved in its effects among the variables, thus it cannot depict the net effects of various parameters on the reaction rate. On the basis of above results revealed in the present study it may be concluded that the formulation of mixed blend juice beverage is possible to satisfy consumer taste and preferences. The product was microbiologically safe during 21 days of storage with good acceptability. So this juice blend could be stored for 21 days.

Jha (2013) stated that soft drinks were common preference among all the individuals before juices were being introduced. With the changing lifestyle and income levels, people are shifting their consumption patterns and have therefore become more health conscious thus leading to increase in demand of juices. The study focused on the preference and consumption pattern of soft drink and fruit juice on the basis of different age group of people living in Indore city. The study starts with determining the major factors affecting the consumption pattern of soft drinks and fruit juices, and ends up with the conclusion as per the state of mind of the average rational human being. The study also remarked the frequency of consuming fruit juices is more than that of soft drinks due to health consciousness of people.

Ubeja and Patel (2014) estimated the importance of various factors affecting the choice of soft drinks and fruit juice outlets by Indian young consumers. The study showed that the consumer acceptance of fruit juice outlets was critically important for the future growth of fruit juices outlets in any economy. Though the

rating of fruit juice outlets attributes under study was very high but still consumers visit fruit juice outlets for fun, change or entertaining their friends and visit is certainly not as substitute. Consumers demand more and more information related to hygiene issues and nutritional values of the products of fruit juice outlets.

Ameh *et al.* (2015) stated that fruits have been valued not only for the taste, texture and colour they add to a diet, but for their contribution to health. They are a rich source of vitamins and minerals, and fruit juices are a popular way of consuming them. In the tropics, a great variety of fruits are produced round the year. Development of new products where two or more kinds of fruit juices are blended to obtain a product that combines the nutritional value of both fruits with the benefit of a pleasant taste. This work showed that acceptable mixed fruit juice from pawpaw and lime could be produced. Generally, increase in lime concentration decreased the ash, phosphorus and Vitamin A as well as pH, total solids and specific gravity while increasing total titratable acidity, moisture, calcium and vitamin C contents. Microbial analysis showed reduced microbial load in sample blends with high lime concentration, due to high acid content of lime.

Anojan and Subaskaran (2015) indicated the intensity of colour and the flavours are the key drivers behind consumer acceptance of fruit drinks. The study involved consumers at different stages of development and highlights the importance of adopting a “sensory marketing approach,” Companies need to continuously innovate to maintain market leadership, wrote the researchers. When the market is overloaded the challenge consists in creating innovative products able to attract and satisfy consumers. This experiment showed the feasibility of the proposed multi-sensory design method based on mixed qualitative and quantitative approaches. The study also demonstrates the importance of flavour and colour selection for new products.

Lee et al. (2016) conducted a study on effect of information on Chinese consumers' acceptance of thermal and non-thermal treated apple juices. The study has addressed the importance of technology information in influencing Chinese consumers' acceptance of processed apple juices. Consumers were relatively homogeneous in their acceptance for the apple juices during blind tasting condition. However, consumers' acceptance changed in label and informed conditions depending on the available technology information. This suggests that blind tasting alone might not adequately predict consumers' effective reaction to apple juices. Technology information should be taken into account during new product development for Hydrostatic Pressure Processing (HPP) and Pulsed-Electric Fields (PEFs) treated juices as the information could positively affect a consumer's expectations for and acceptance of a product.

Włodarska et al. (2016) conducted a study and they found that, the physicochemical (color, turbidity, total soluble solids, sucrose, d-glucose and d-fructose content, pH, acidity, total phenolic content and antioxidant activity) and sensory quality and consumer perception of differently processed clear and cloudy commercial apple juices were studied. Among eight studied juices, freshly squeezed juices were liked the most by consumers, whereas the cloudy juices not from concentrate and clear juices prepared from concentrate, were significantly less liked. Principal component analysis revealed groups of similar juices, in terms of their physicochemical properties and sensory characteristics assessed both by experts and consumers. The external preference mapping showed a nonhomogenous distribution of individual preferences in relation to juice attributes. Three groups of consumers differing in apple juice preferences were distinguished by means of the agglomerative hierarchical clustering. The sensory and physicochemical data were correlated with consumer acceptance by partial least square regression and cues of acceptance of apple juices were identified.

Salgado et al. (2017) found in their study that, antioxidants are compounds responsible for free radical scavenging in the body. They protect the organism from oxidative modification of cells and tissues. These modifications have been associated with degenerative diseases, atherosclerosis and carcinogenesis. *Punica granatum* displays high antioxidant potential due to the presence of phenolic compounds, which are capable of disease prevention. The study showed the highest antioxidant activity in pomegranate peel than in seeds and pulp. Based on these results, pomegranate peel was used to produce dried extract that was added to commercial tomato juice and orange juice with strawberries. Analysis to determine the content of phenolic compounds and antioxidant activity was performed on pomegranate pulp, seeds and peel and in juices enriched with dried extract of pomegranate peel. The dried extract was responsible for a significant increase in antioxidant activity of the juices, proportional to the concentrations added. However, although both flavours of enriched juices displayed high antioxidant levels, the samples with higher dried extract concentrations received the lowest scores from sensory analysis participants due to the characteristic astringent flavour of pomegranate peels. Therefore, to obtain greater acceptance in the consumer market, we concluded that the maximum addition of dried pomegranate peel extract is 0.5 per cent in tomato juice and orange juice with strawberries.

Fernández-Vázquez et al. (2018) conducted research to identify the individual preferences of 100 consumers between 20 and 30 years old for the color of 16 milk–fruit juice beverages (MFJB) were investigated by preference mapping technique. Consumers were asked to evaluate, just by looking at the samples, how much they liked them (from “Extremely dislike” to “Extremely like”). The color of the samples was analyzed by two different instrumental techniques. Results obtained from the instrumental colour measurement showed the wide diversity in hues of the beverages available in the market, and correlations between techniques proved that both of them were appropriate to analyze colour. Results

showed that participants preferred samples with orangish appearance instead of those with a whiter look. Anyway, punctuations given by the consumers suggest that generally, colour of these products was not highly evaluated by consumers, as the best mean punctuation was 6.6.

3. PROJECT METHODOLOGY

This chapter deals with the methodology adopted for undertaking the study. A brief description of the sampling design for the data collection and analytical procedure and techniques adopted for reaching at a result are presented in this chapter. The present study was conducted in Bikaner city of Rajasthan. The consumers were conveniently selected from the retail outlets from the city and the retailers were selected on the basis of judgmental sampling.

3.1 Area of Study

Bikaner city was selected for the area of study. Reason for selection of Bikaner city was due to increasing organised and unorganised fruit juices retailing in Bikaner city. Apart from this, Bikaner is famous for mostly traditional food items but now a days it is showing interest in consumption of fruit juices as consumers are becoming more conscious about health due to rise in income and standard of living. During summer, temperature usually remains very high so climate is favourable for consumption of fruit juices in Bikaner. There is significant scope for fruit juice market in Bikaner as the population is increasing and their preference for fresh juice is changing as well.

3.2 Collection of data

The research was based on the primary as well as secondary sources of data.

3.2.1 Primary data

Primary data for the study was collected from consumers and retailers.

3.2.2 Secondary data

Source of secondary data were the web portals, books, magazines, newspapers, journals, etc.

3.3 Study approach

The study was descriptive type. For collection of data personal interview was conducted and information from retailers and consumers was collected. A detailed report and project plan was prepared on the basis of analysis of gathered information.

3.4 Sample Size

Number of Consumers- 80

Number of Retailers- 20

3.5 Sampling Procedure

The sampling procedure was used during the study area is given below.

A. Consumers

Consumers were selected on the basis of convenience sampling. Consumers were selected among those who were available at retailers' outlet during the survey. 80 consumers from different places of Bikaner at different time (morning, afternoon and evening) through schedule were selected. The respondent was the member of the family who take decisions regarding purchase of fruit juice in the family.

B. Retailers

Retailers were selected on the basis of judgment. Twenty well known retailers from important market were selected on judgmental basis. The judgmental criterion was the volume of business handled by them.

3.6 Research Instruments

Interview schedule was used as an instrument for collecting information, which was having open ended and close ended questions.

3.7 Analysis of objectives

i. To identify major juice brands and flavours / variants preferred by consumers

For fulfilling the objective personal interviews of retailers and customers was conducted to identify the different types of fruit juice and their brands available in the market

ii. To study consumer awareness about packaged fruit juice

The objective was to identify the level of awareness among consumers of different types of fruit juice and brands. The consumer's awareness creates a demand towards the particular product.

iii. To understand the perception of consumers and retailers towards packed fruit juice

Top three fruit juice brands were considered which were available in Bikaner city. Perception of consumers and retailers regarding different parameters like availability, price, quality, flavour, packaging were recorded. The question was sorted out and the ranking was calculated. The ranking was made like first, second and third. The first rank had the highest three points, the second rank had two points and the third rank who have one point. According to the rank, the numbers of persons were calculated who was given the rank according to the different parameters. The points obtained from the number of the persons were give rise to intermediate point. The summation of all points was a result of total point which was the main criteria for comparison.

iv. To identify the factors influencing the consumers buying Behaviour

Consumers generally go for some of the general factors while purchasing a product like brand, company name, expiry date, price, ingredients added, price and quality. The perception which customers interpret from the outer level of the product influences them a lot to buy the product. Factors associated with preference of a particular type of fruit juice and its brands were studied. Garrett's ranking technique was used to analyze response of consumer on certain parameters of preference.

Garrett's Ranking Technique:

$$\text{Percent position} = \frac{100 (R_{ij} - 0.50)}{N_{ij}}$$

Where,

R_{ij} is the rank given by i^{th} item by j^{th} individual

N_{ij} is the number of items ranked by the j^{th} individual.

(Note: The percent position of each rank was converted into scores by referring tables given by Garrett and Woodworth (1969). Then for each factor, the scores of individual respondents were added together and divided by the number of respondents for whom scores were added. The mean scores for all the factors were ranked by arranging in descending order).

4. Results and Discussion

This study was undertaken to access the comparative analysis of packaged fruit juices in Bikaner city of Rajasthan. It includes analysis of the major juice brands and flavours/ variants preferred by consumers, study of the consumer awareness about packaged fruit juice, perception of consumers and retailers towards brand juice and identifying the factors influencing the consumers buying Behaviour. The results obtained from the study have been presented in tables along with appropriate interpretations using simple mathematical and statistical techniques. The outcomes of the study have been presented in the following heads:

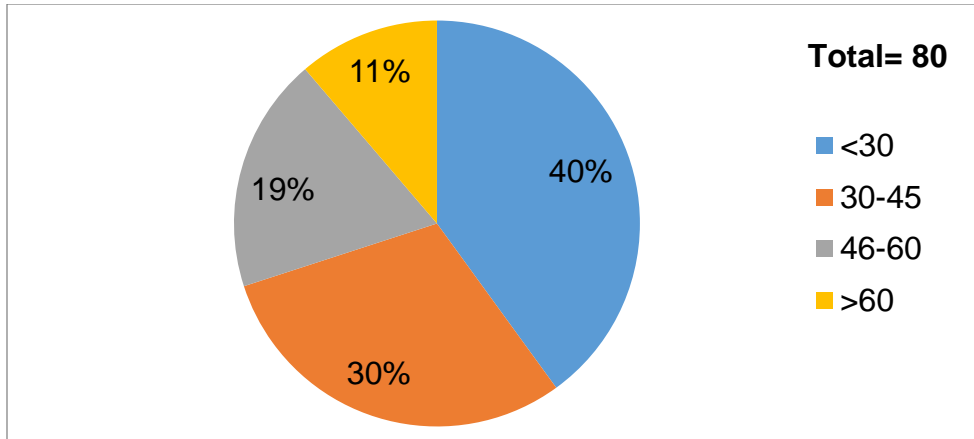
Demographic profile of consumers

Age group means the chronological age of the respondents but not the mental age.

4.1.1 Age composition of consumers

The respondents were categorized into four groups on age basis like below 30 years, 30- 45 years, 45- 60 years and above 60 years, which is presented in figure 8.

Fig 8: Age group of consumers in years



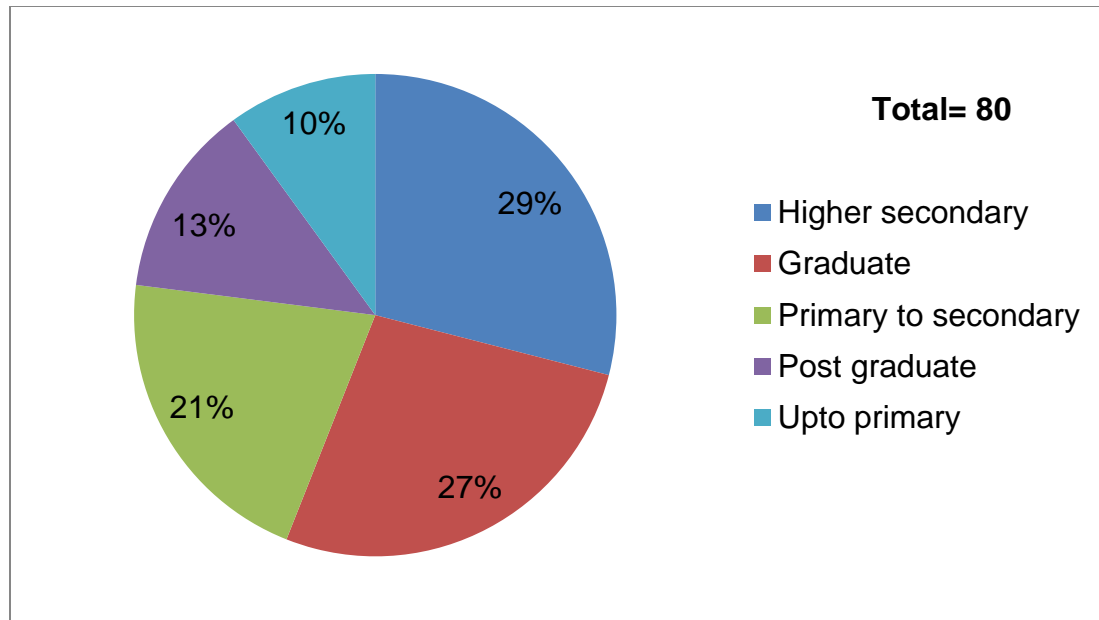
Source: Researcher's computation from field data

Figure 8 depicts the age composition of the consumers consuming the fruit juices. From the analysis it is found that the fruit juices consumption depends upon different age groups. During the survey it was found that 40 per cent of the consumers belong to the age group less than 30 years. Subsequently 30 per cent were belonged to the age group of 30 to 45 years. 19 per cent people were from the age group 46-60, and only 11 per cent consumers were above the age of 60 who were likes to consuming packaged fruit juice.

4.1.2 Educational status of the consumers

Educational status mainly implies the educational qualification of respondents. It was classified as upto primary, primary to secondary, higher secondary, graduation and post-graduation and the result is presented in figure 9.

Fig 9: Educational qualification of the consumers in the study area (%)



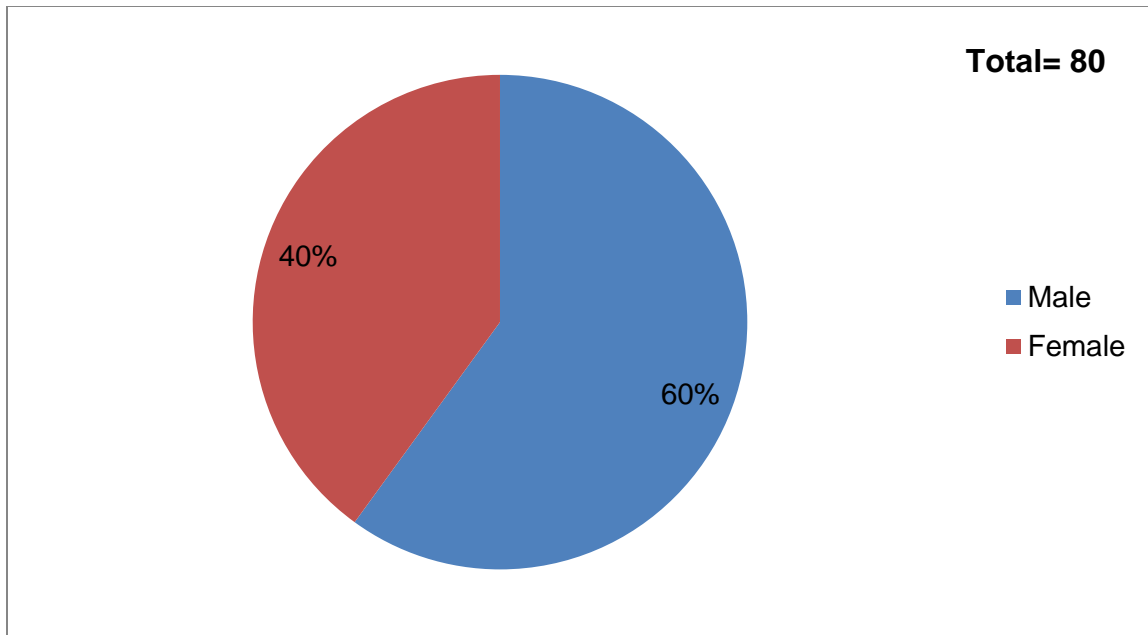
Source: Researcher's computation from field data

Figure 9 shows that most of the respondents interviewed were having the educational qualification of higher secondary with 29 per cent. Followed by consumers got education of graduation with 27 per cent and consumers having education of primary to secondary were 21 per cent. The consumers having higher qualifications like post graduate were 13 per cent and upto primary were only 10 per cent of the total.

4.1.3 Gender wise classification of consumers

In this study male and female both were part of the target population. The composition of male and female in the study area was given in figure 10.

Fig 10: Classification of consumers on the basis of gender (%)



Source: Researcher's computation from field data

Figure 10 shows that, 60 per cent of the respondents were male and remaining 40 per cent were female among the target population.

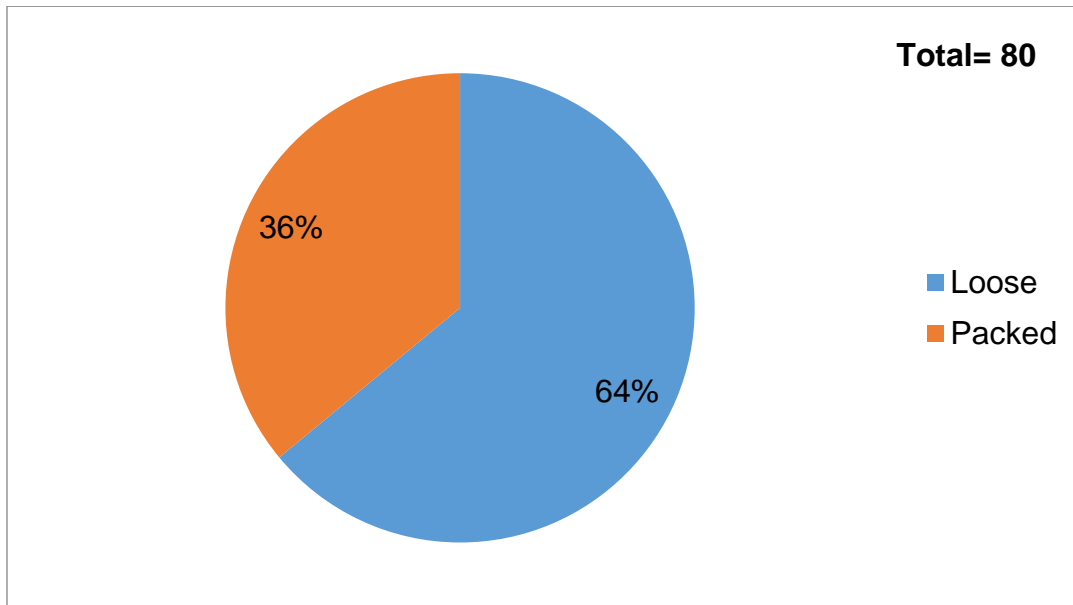
4.2 Major Juice Brands and Flavours/ Variants Preferred by Consumers

Juice is a beverage made from the extraction or pressing of the natural liquid contained in fruit and vegetables. Major juice brands in the study area were Real, Tropicana, Slice, Frooti, Maaza, etc. and the flavours available in the market were orange, mango, pineapple, apple, mixed fruits, etc. Consumers prefer these brands and various flavours based on their taste and value for money.

4.2.1 Juices preferred by consumer

From the study area, consumers were asked about their preference of fruit juice, either fresh juice or packaged fruit juice. The opinion of the respondents was presented in figure 11.

Fig 11: Juices preferred by consumer (%)



Source: Researcher's computation from field data

Figure 11 reveals that, only 36 per cent people like packed juices whereas 64 per cent people like juices which were freshly prepared in front of their eyes by local juice venders. They believe that the packed juices contains many extraneous substances or ingredients and loose juices are fresh and contains not any extraneous ingredients or preservatives so that the loose juices are more beneficial than the packed one. They do not like the taste of packed juices because it gives the taste like cough syrups as they said.

4.2.2 Major juice brands and flavours /variants available in Bikaner city

As per given table it shows that brands like Real, Tropicana , Maaza , Frooti etc. were the most popular juice brands amongst customer. These brands were produced by parent companies and are available in different flavours and variants. The major fruit juice brands available in the Bikaner city are shown in table 1.

Table 1: Major fruit juice brands in Bikaner city

Sl. no	Juice Brands	Parent company	Flavours available
1.	Real	Dabar	Grape, Guava, Orange, Pineapple, Mixed fruit, Litchi, Mango, Apple
2.	Tropicana	PepsiCo Ltd.	Orange, Apple, Litchi, Mango
3.	Maaza	Coca cola	Mango
4.	Frooti	Parle-Agro	Mango, Guava, Pineapple
5.	Slice	PepsiCo Ltd.	Mango

Source: Researcher's compilation from field data

Table 1 shows major fruit juice brands in Bikaner city. The brands are Real, Tropicana, Maaza, Frooti and Slice. Tropicana and Slice are produced by same parent company, ie., PepsiCo Ltd. Real juice from Dabur available in eight variants including grape, guava, orange, pineapple, mixed fruit, litchi, mango and apple. Maaza and Slice are available only in mango flavour.

4.2.3 Consumer's preferred brand

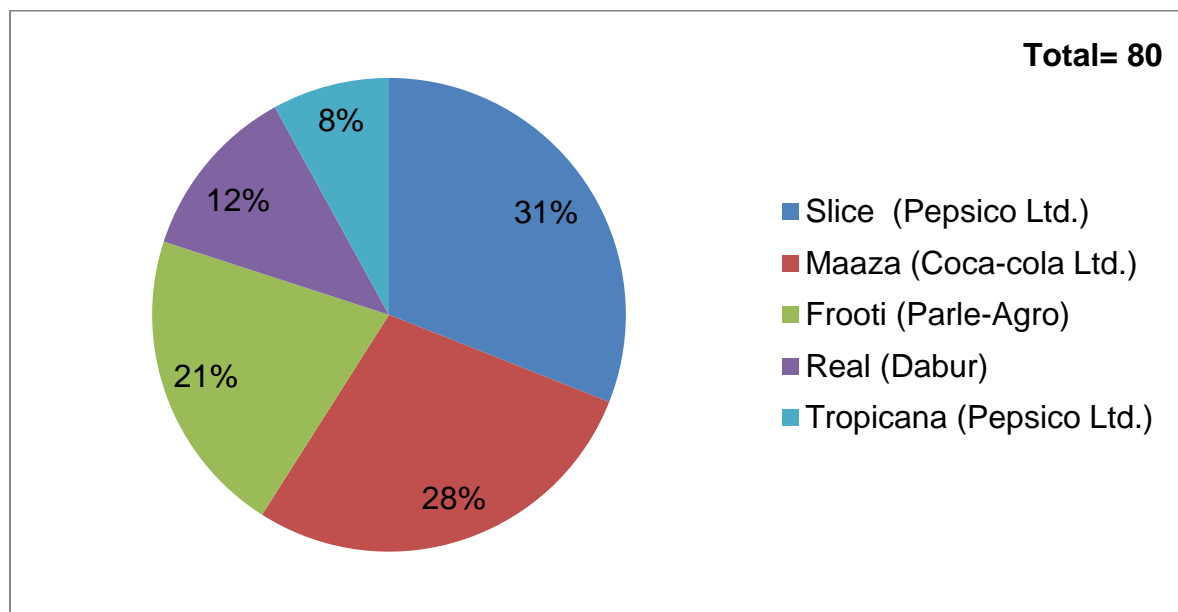
Brand preferences represent a fundamental step in understanding consumer choices. A deeper understanding of such preference dynamics can help marketing manager's better design marketing program and build a long term relationship with consumers.

This brand preference is influenced by various factors. In the identification of factors affecting the brand preference, it was concluded that brand persona is the

most effective factor that affects the brand preference. This brand persona deals with the personality aspects or the external attributes of brand, thus it can be said that consumer prefer any brand by looking at the external attributes of a brand.

During the study, information was collected regarding the brand, which consumer rely the most. The survey was conducted among five brands *i.e.*, Real, Tropicana, Maaza, Frooti and Slice. The preferred brand by the consumers was presented in figure 12.

Fig 12: Most preferred fruit juice brand (%)



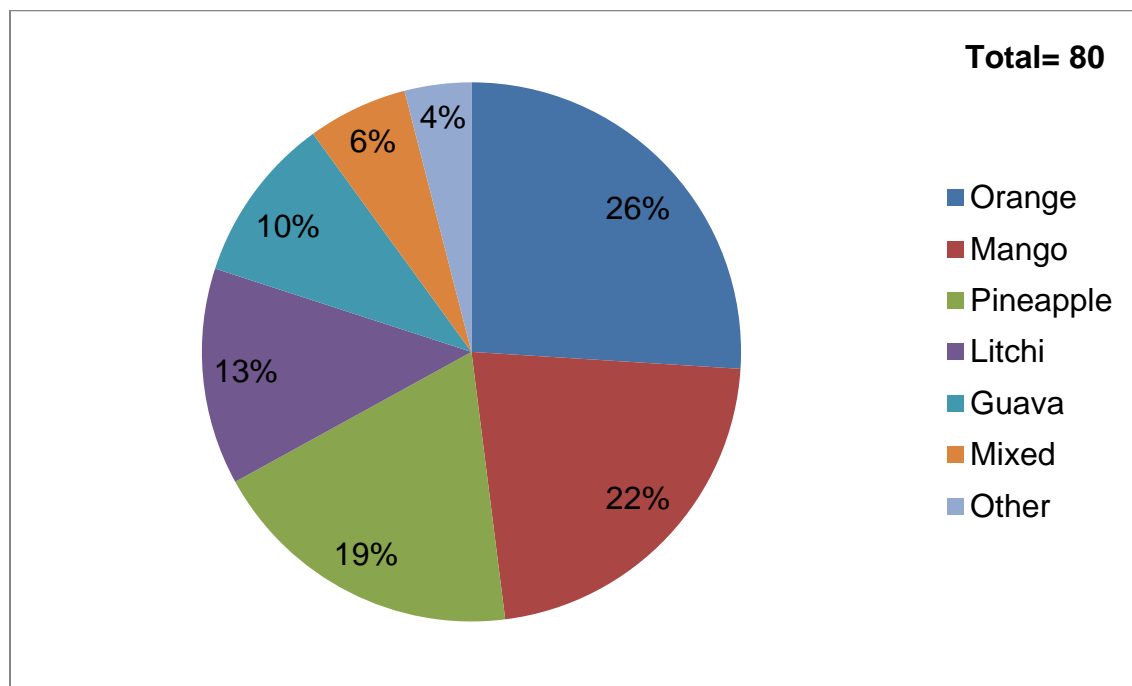
Source: Researcher's computation from field data

Figure 12 reveals that, majority of the respondents prefers Slice, which accounts 31 per cent share of the total packed fruit juice market in Bikaner city followed by Maaza with 28 per cent and Frooti with 21 per cent. Only 8 per cent of the respondents prefer Tropicana.

4.2.4 Most popular flavour

A survey was conducted among 80 people just to know about their taste preference. Question was asked about the flavour which was preferred by them among 6 flavours including mango, orange, mixed fruit juice, litchi, pineapple, guava, and other flavours. The result was shown in figure 13.

Fig 13: Most Preferred flavour of packed fruit juice in the market (%)



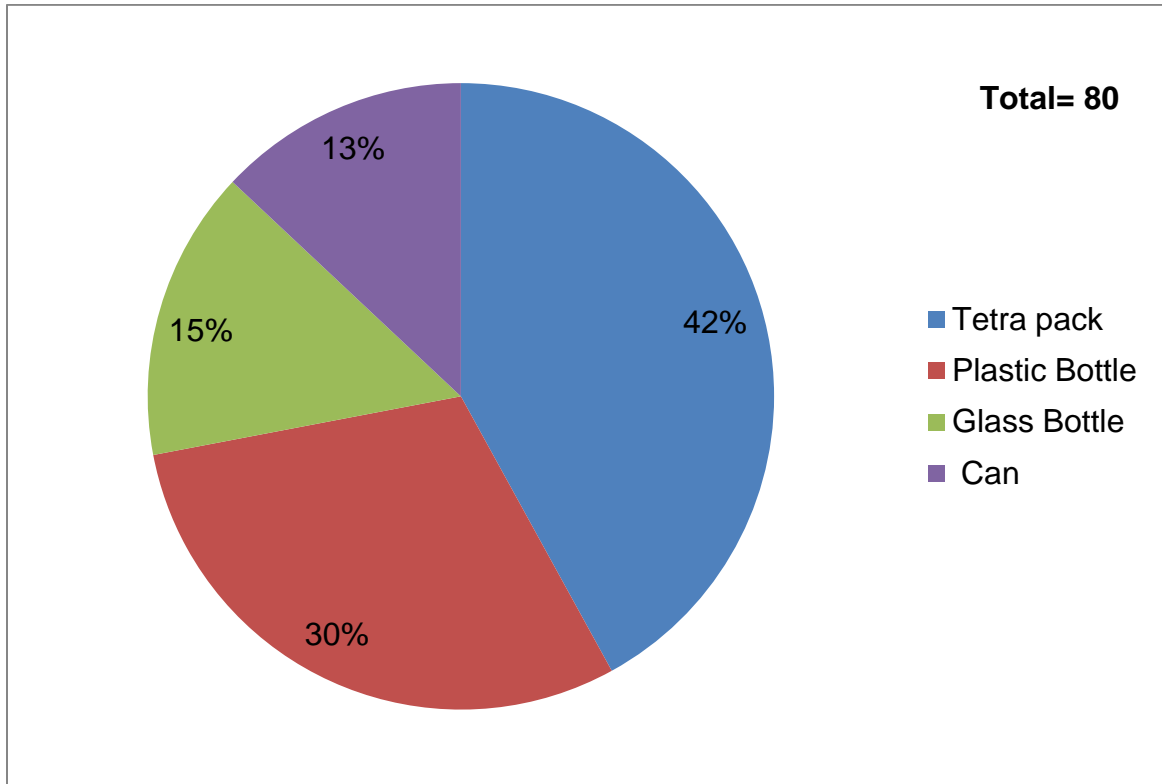
Source: Researcher's computation from field data

The figure 12 shows that, 26 per cent preferred orange flavour among other flavours available in the market, which means orange flavour was most popular among other juice flavours. Followed by mango with 22 per cent and pineapple with 19 per cent and guava with 10 per cent.

4.2.5 Consumer's Preference for Packaging

The packaging of the packed fruit juices were divided into four types, i.e. tetra pack, plastic bottle, can and glass bottle. The preference of the consumers based on the packaging was shown in figure 14.

Fig 14: Consumers Preference for Packaging (%)



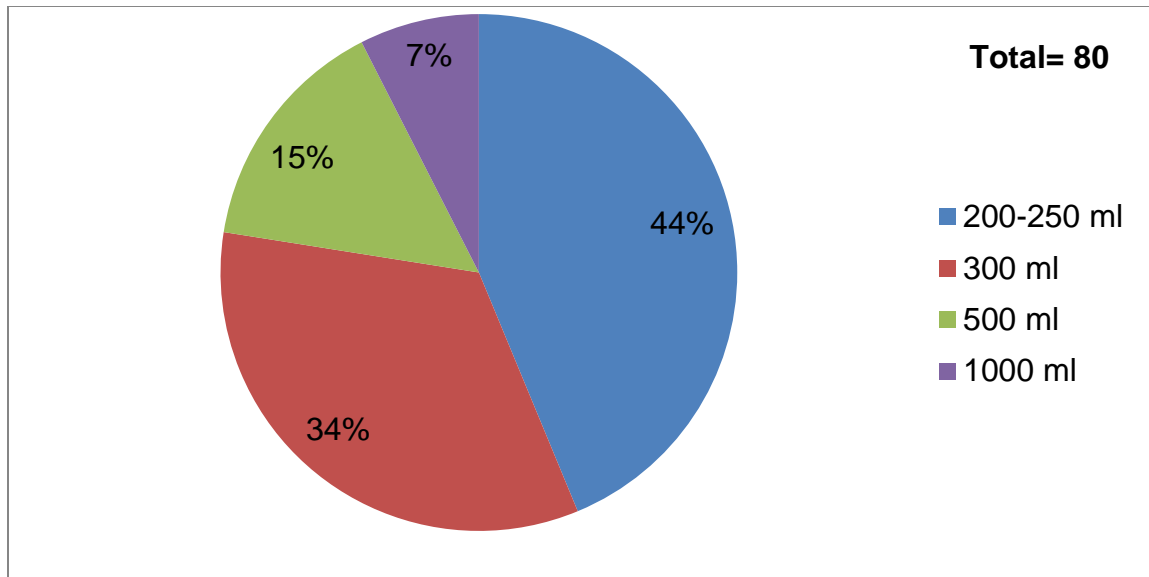
Source: Researcher's computation from field data

Figure 14 represents the consumers preference for packaging. From the survey it was analyzed that 42 per cent of people preferred tetra pack, 30 per cent of consumer preferred plastic bottle, 15 per cent of consumer liked glass bottle and only 13 per cent of people preferred to have juice in can.

4.2.6 Preferred quantity of packed fruit juices

Packaging of fruit juices is also creates a demand towards the particular product. The fruit juices were available in the study area in the quantity of 200-250 ml, 300 ml, 500 ml and 1000 ml. The result of preferred fruit juice quantity is given in figure 15.

Fig 15: Preferred quantity of packed fruit juices in study area (%)



Source: Researcher's computation from field data

Figure 15 shows that, small packing of fruit juice like tetra pack containing 200-250 ml was very popular among the consumers, which accounts 44 per cent. 34 per cent of the consumer preferred 300 ml pet bottles and 15 per cent preferred the quantity of 500 ml. Only 7 per cent of the consumers preferred 1000 ml bottles.

4.3 Consumer Awareness about Packed Fruit Juice

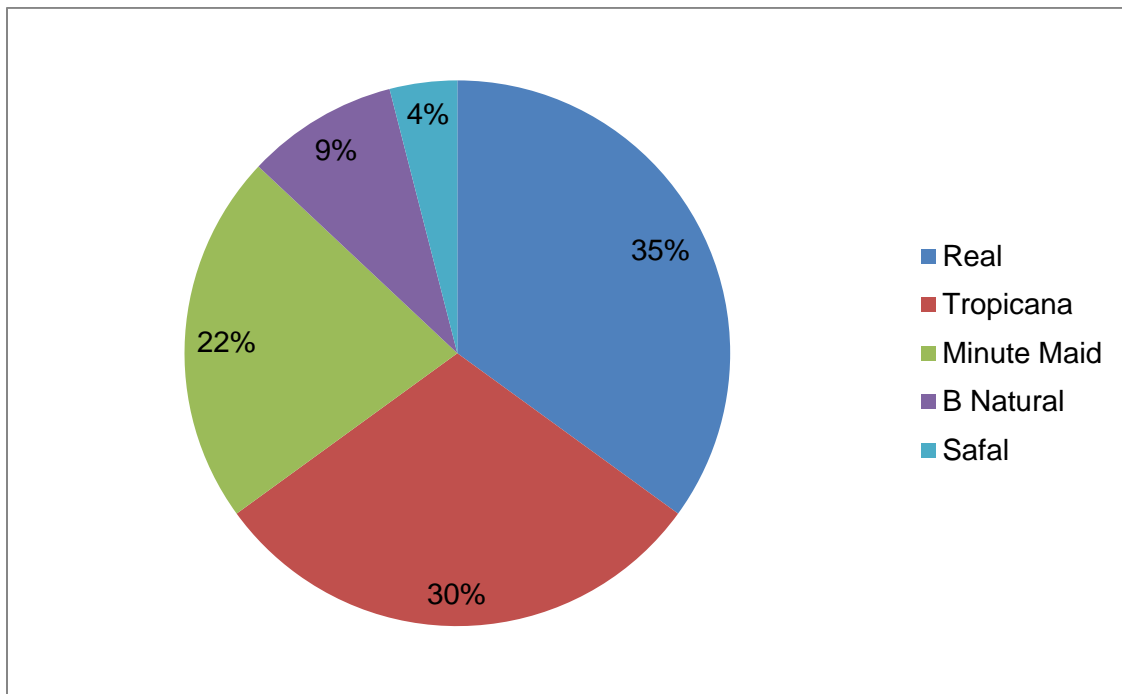
Brand awareness is an extent to which a brand is recognized by potential customers, and is correctly associated with a particular product. Expressed usually as a percentage of target market, brand awareness is the primary goal of advertising in the early months or years of a product's introduction.

4.3.1 Most aware brand of packed fruit juice

From the study area, awareness regarding brand was collected. The brands under the consideration were Real, Tropicana, Minute Maid, B Natural and Safal.

Consumers were asked about the brand most aware by them from among the given brands. The results is shown in figure 16.

Fig 16: Most aware brand of packed fruit juice (%)



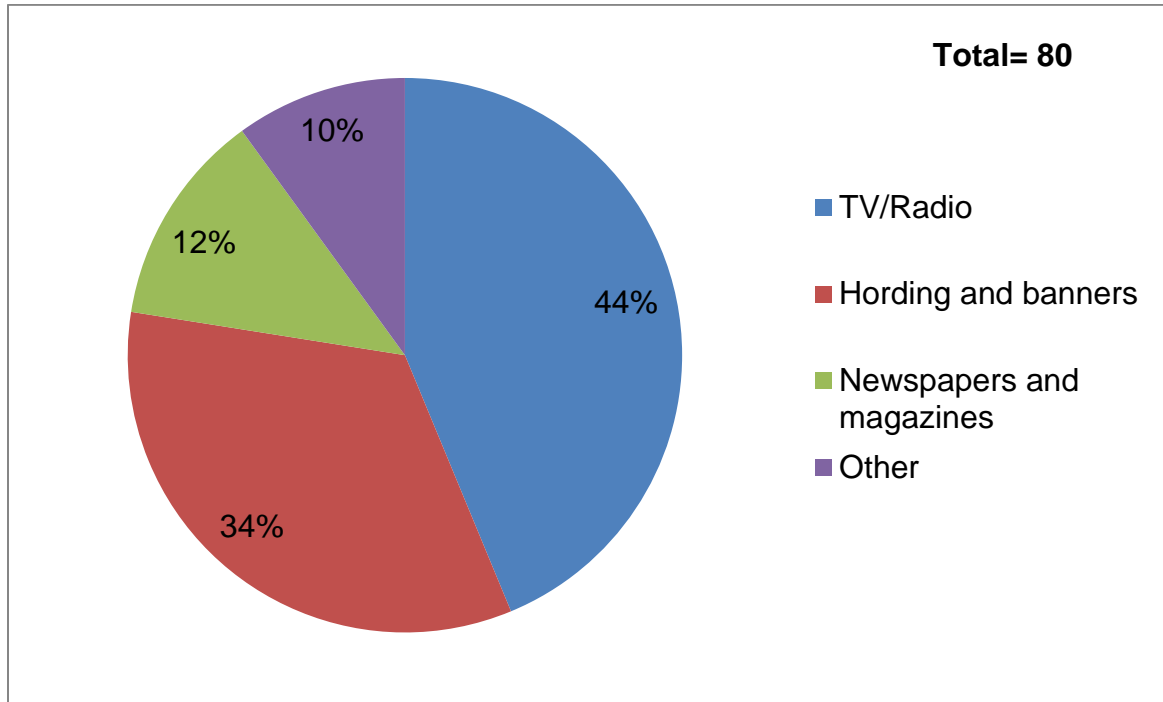
Source: Researcher's computation from field data

Figure 16 shows that, majority of the respondents (35%) aware about Real most compared to other brands followed by Tropicana (30%). 22 per cent of the consumers in the study area aware more about Minute Maid. Percentage of respondents most aware about B Naturals and Safal were 9 per cent and 4 per cent respectively.

4.3.2 Source of knowledge regarding packed fruit juice

The consumers were asked about the source from where they got information regarding the packed fruit juices. The sources taken into consideration were TV/radio, newspapers, hording and banners etc. The results are shown in figure 17.

Fig 17: Source of knowledge regarding packed fruit juice (%)



Source: Researcher's computation from field data

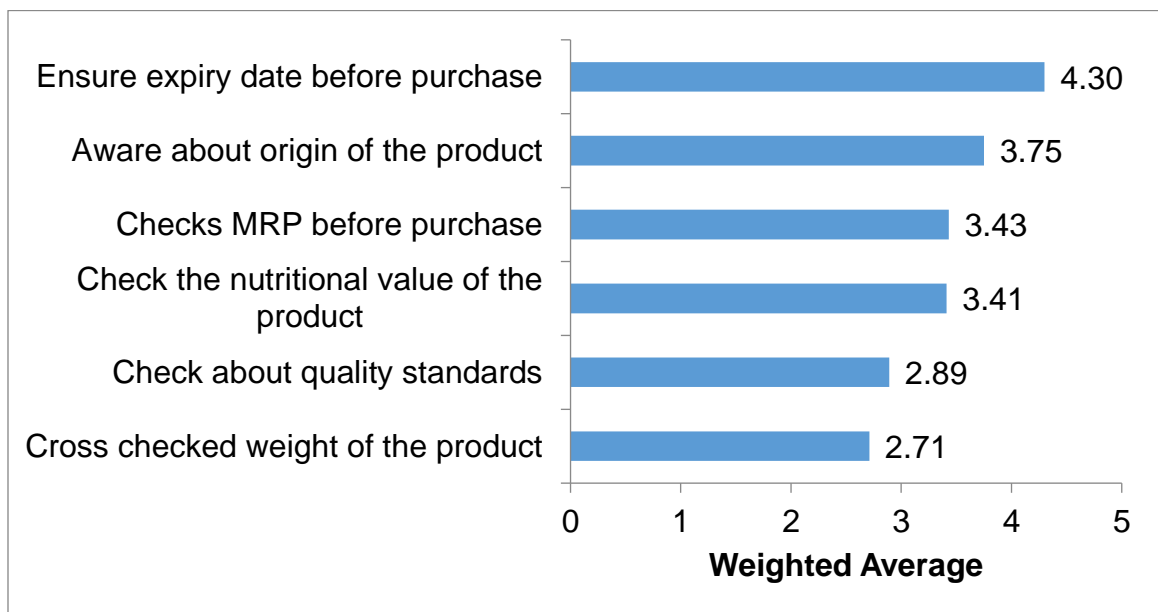
Figure 17 reveals that, out of 100 per cent respondents, 40 per cent consumers got the idea about fruit juices from newspapers. Hoardings and banners were plays important role in spreading product knowledge amongst customer. The source of awareness regarding the product are Newspapers and magazines is the most demanded for getting awareness regarding fruit juices and their changes made time to time.

4.3.2 Consumers' awareness regarding different parameters of packed fruit juice

It is very important to check the level of awareness of the respondents regarding different parameters of the packed fruit juice. The parameters considered during the study were product expiry date, , awareness about product origin at the time of buying of packaged fruit juice, checking about the nutritional facts written on

the product, etc. It was used the weighted average method to know the parameter which was highly considered by the respondents and the parameters having least weighted average value was the indication, where the consumers should focus further. The result is shown in figure 18.

Fig 18: Consumers’ awareness regarding different parameters of packed fruit juice



Source: Researcher’s computation from field data

(Where, 5= Strongly Agree to the statement, 1= Strongly disagree)

Figure 18 indicate that, consumers exhibit a good amount of their knowledge while ensuring of expiry date before purchase. It got a weighted average of 4.30. The next parameter which the consumers were much aware was the origin of the product, whether the product is synthetic or pure juice. It was having a weighted average score of 3.75. The consumers were least aware about the weight of the product. Less of them were cross checked the quantity printed on the product was at par with the actual quantity provided.

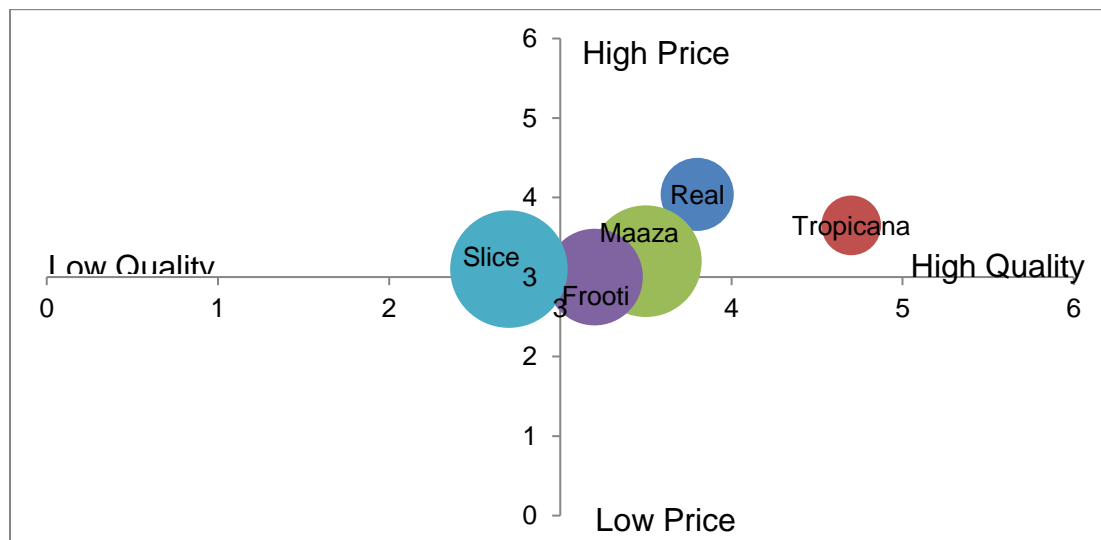
4.4 Perception towards Packed Fruit Juice

Consumer perception is a marketing concept that encompasses a customer's impression, awareness and/or consciousness about a company or its offerings.

4.4.1 Perception of consumers towards packed fruit juice

Perceptual Mapping is the graphical technique used by marketers to visualize the perceptions and opinions of customers about products, product lines or brands. The perception of consumers regarding different fruit juice brands with respect to its price and quality is presented in figure19.

Fig 19: Perception of consumers towards packed fruit juice



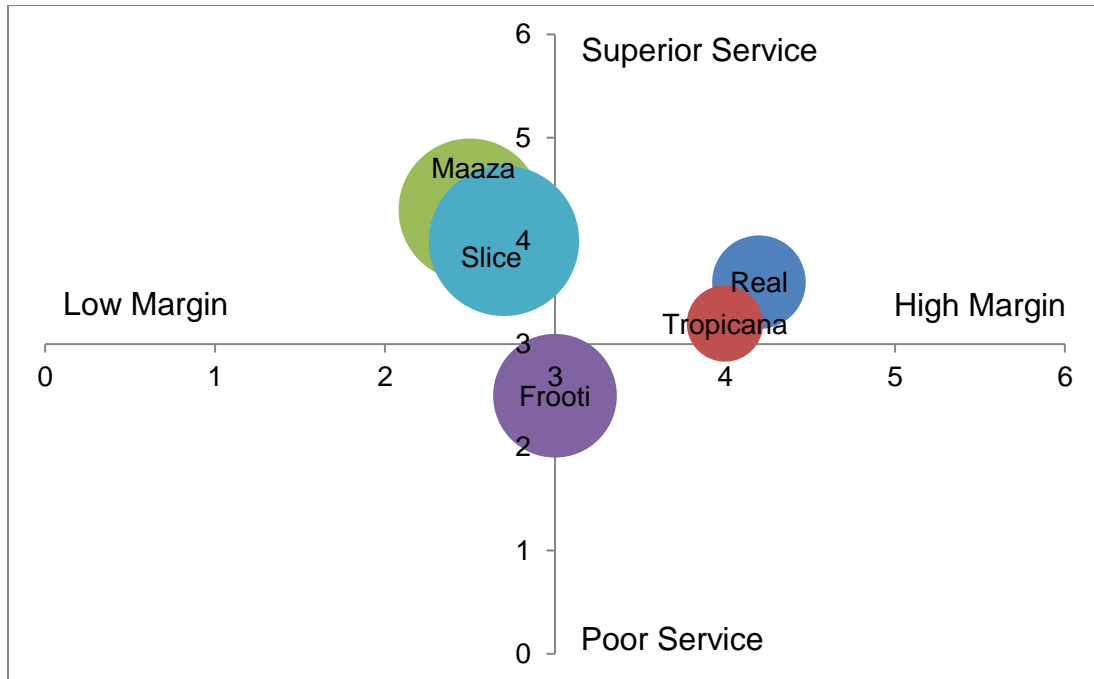
Source: Researcher's computation from field data

Figure 19 shows the perception of consumers in terms of price and quality. It reveals that, Tropicana is superior among all other competing brands in terms of price and quality. Hence the high price of Tropicana is justified by the company though ensuring high quality among consumers. The market share of this brand is very less compared to all other competing brands in the market shown by the small circle. Frooti and slice were perceived low quality by the consumers both in terms of low price and quality among consumers with a large market share.

4.4.2 Perception of retailers towards packed fruit juice

Perceptual map is prepared to the study positioning of a particular brand in retailers mind with in terms of services and margin. The brands considered were Real, Tropicana, Frooti, Slice and Maaza. The results are shown in figure 20.

Fig 20: Perception of retailers towards packed fruit juice



Source: Researcher's computation from field data

Figure 20 shows that, the Maaza and Slice were superior in terms of services among all other competing brands with a low margin on product. Hence the high margin of Tropicana and Real brands of fruit juice were ensuring among retailers mind. The market share of this brand was very high compared to all other competing brands in the market shown by the big circle. Frooti was perceived poor by the retailers both in terms of service and margin among retailers with a less market share compared to Maaza and Slice.

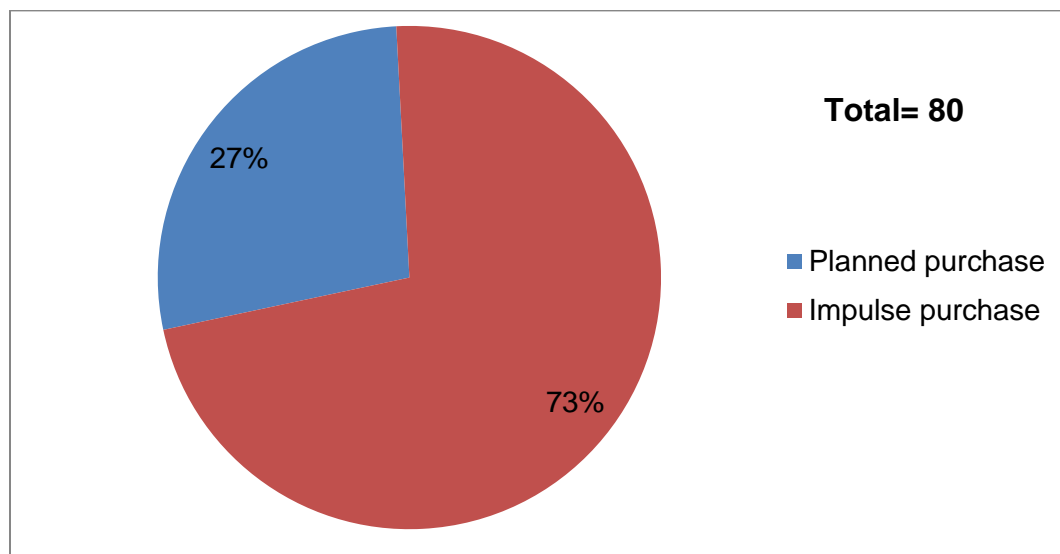
4.5 Factors Influencing the Consumers Buying Behaviour

Consumer buying Behaviour is the sum total of a consumer's attitudes, preferences, intentions, and decisions regarding the consumer's Behaviour in the marketplace when purchasing a product or service.

4.5.1 Nature of consumers' buying Behaviour

People make purchasing decisions for a variety of reasons. But, by and large, the Behaviour involved in any purchase usually falls under one of two different Behavioural types – logical (planned) or impulse-driven. The nature of purchase exhibited by the respondents during the study is depicted in figure 21.

Fig 21: Nature of consumers' buying Behaviour (%)



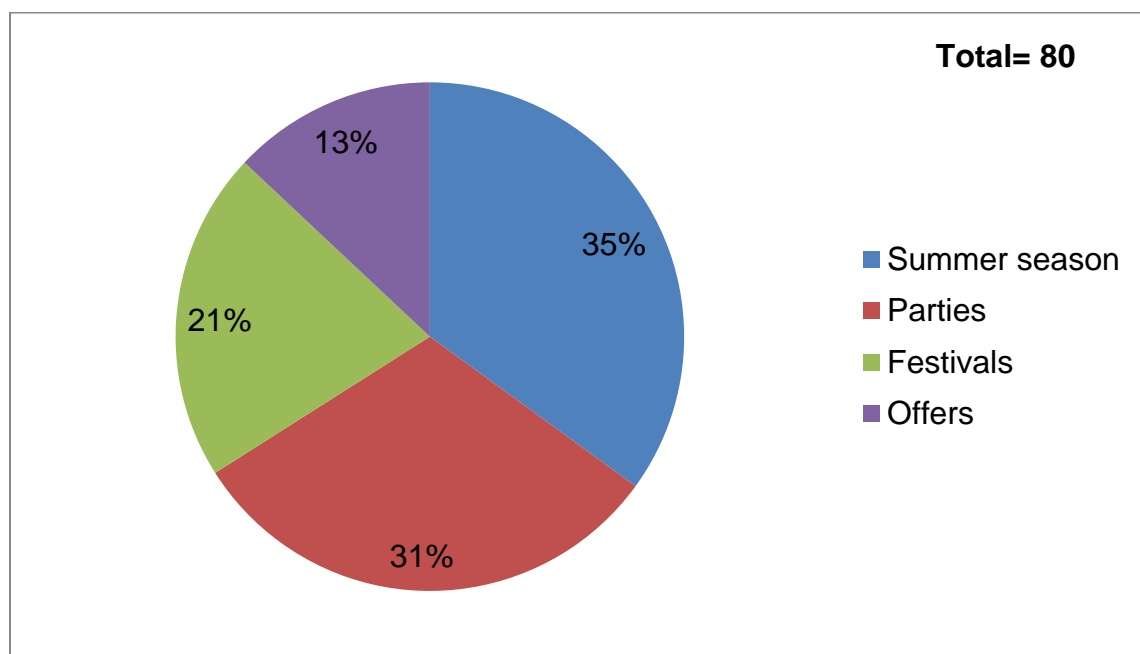
Source: Researcher's computation from field data

Figure 21 shows that, majority of the respondents (about 73 per cent) exhibiting an impulse nature of purchase behaviour as the demand for fruit juices mainly of impulsive in nature. The remaining 27 per cent were showing a planned purchase as they planned well in advance before purchasing the packed fruit juice.

4.5.2 Buying pattern of consumers regarding packed fruit juice

In buying pattern, the occasion of purchasing the packed fruit juice was identified. Here the respondents were asked regarding, for which occasion, the product was demanded. It might be for celebrating festivals, parties, or take the benefit of available offers, or quenching thirst during summer season. The results are shown in figure 22.

Fig 22: Buying pattern of consumers regarding packed fruit juice (%)



Source: Researcher's computation from field data

Figure 22 reveals that, majority of the respondents prefer to purchase the packed fruit juice to get rid of thirst during the summer. It accounts nearly 35 per cent of the total respondents under the study. 31 per cent were purchased the packed fruit juice for using in parties. Other reasons were celebrating festivals (21 per cent) and taking advantage of available offers (13 per cent).

4.5.3 Reason for the purchasing of packed fruit juice

Consumer behaviour can be broadly classified as the decisions and actions that influence the purchasing behaviour of a consumer. What drives consumers to

choose a particular product with respect to others is a question which is often analyzed and studied by marketers. The Table 2 shows the factors pertaining to the tendencies, attitude and priorities of people must be given due importance to have a fairly good understanding of the purchasing patterns of consumers.

Table 2: Reason for the purchasing of packed fruit juice

Sl. no	Factors	Garette score	Rank
1.	Flavour/ taste	84.2	1
2.	Value for money/Price	79.3	2
3.	Quality	76.5	3
4.	Nutrition value	69.5	4
5.	Brand name	62.1	5
6.	Fragrance	54.5	6
7.	Pack size	53.6	7
8.	Advertisement influence	48.2	8
9.	Packaging	46	9

Source: Researcher's computation from field data

Table 2 shows the factors influencing the purchase of packed fruit juices. Consumer gives higher importance to flavour or taste of the purchased product with a Garette score of 84.2 followed by price and quality of the product with Garette score of 79.3 and 76.5 respectively.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The whole study is based upon the comparative analysis of packaged fruit juice in Bikaner city. Tropicana, Real, Maaza, Frooti, and Slice were the five brands which were taken into consideration for the study. These five brands are identical with respect to different characteristics. Study was based on the consumer behaviour analysis which serves a great idea regarding consumer perception when they go for a particular brand to fulfill their needs.

- Majority of the consumers belonged to the age group of less than 30 years (40%) followed by the age group between 30 to 45 (30%). Only 11 per cent consumers were above the age of 60 who were likes to consume packaged fruit juice.
- Majority of the respondents interviewed were having the educational qualification of higher secondary with 29 per cent. Followed by consumers got education of graduation with 27 per cent.
- Only 36 per cent people like packed juices, whereas 64 per cent people like juices which were freshly prepared in front of their eyes by local juice venders.
- It was found that Slice has maximum number of customers (31%), where as other brands have lesser number of consumers. Tropicana has a very few number of consumers. About 8 per cent of consumers prefer to have Tropicana whereas Real have 12 per cent consumers in the market.
- Orange was the most preferred flavour among all other flavours available in the market. It was preferred by 26 per cent of the total respondents followed by mango flavour with 22 per cent respondents.

- Tetra pack was the most preferred packaging in the study area followed by plastic bottles, the least respondents preferred can. And most preferred quantity was 200-250 ml.
- 40 per cent consumers got the idea about fruit juices from newspapers. Hoardings and banners were plays important role in spreading product knowledge amongst customer.
- Regarding consumers awareness, consumers exhibit a good amount of their knowledge while ensuring of expiry date before purchase. Followed by origin of the product. The consumers were least aware about the weight of the product. Less of them were cross checked the quantity printed on the product was at par with the actual quantity provided.
- According to consumers' point of view, Tropicana was the superior brand among all other competing brands in terms of price and quality. Retailers' point of view Maaza and Slice were superior in terms of services among all other competing brands with a low margin on product.
- 73 per cent of the total respondents purchase the packed fruit juices without any planning and rest 27 per cent respondents purchase the product after planning. The majority of the respondents (35%) prefer the product during summer seasons.
- The major factor influencing the purchase of packed fruit juice was flavour and taste followed by value for the money with Garette score of 84.2 and 79.3 respectively. The least influencing factor was packaging of the product with Garette score of 46.

The following limitations are noteworthy:

- The behaviour of the consumer while approaching them to fill the questionnaire was unpredictable.
- The shortage of time was another constraint for the study.
- There may be error due to bias of respondents.

- The sample was restricted to 80 consumers and 20 retailers, which may restrict the scope.

5.2 Recommendations

- As the majority of the consumers belonged to the age group below 30 years, the marketers should target other age groups also.
- The higher educated persons who acquire Post Graduation were very less. Hence awareness should be created among this category regarding nutritional aspects and health benefits of packed fruit juices.
- The consumers highly prefer the loose fruit juices, which were made instantly at the time of demand. It was because, the consumer think that the packed fruit juices contains extraneous ingredients, which were not fit for health. Hence, knowledge should be imparted among the consumers that, the packed fruit juices are free from adulteration and foreign matters. And the standardisations like FSSAI, AGMARK, etc. should be strictly enforced.
- The customers highly prefer the quantity of 200-250 ml tetra packs. Hence, the companies should focus on this segment rather than spending more on high package size.
- Maximum number of consumers becomes aware about the packed fruit juice through newspapers and magazines. So the companies producing packed fruit juice should concentrate on this advertising media for getting maximum number of consumers.
- Majority of the consumers prefer the packed fruit juice during summer season, so the companies should ensure that the product be available with the retailers in time before the season.

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Appendix - 1

Questionnaire for Consumer

Name:

Contact no.

1. Gender of respondents

A) Male

B) Female

2. Your age group

A) Below 30

B) 30-45

C) 46-60

D) Above 60

3. Qualification:

Up to primary

Primary to secondary

Higher secondary

Graduate

Post graduate

4. Which juice you prefer to have?

A) Loose

B) Packed

5. Which type of fruit juice brand you are aware mostly?

A) Real (Dabar)

B) Tropicana (PepsiCo)

C) Minute Maid (Coca-Cola)

D) B Natural (ITC)

E) Safal (Mother Dairy)

6. Through which medium you come to know about your preferred fruit drink?

A) Hording and Banners

B) Newspaper and magazine

C) TV / Radio

D) Any Other

7. Which type of fruit juice brand you are prefer mostly?

A) Real (Dabar)

B) Tropicana (PepsiCo)

C) Maaza (Coca-Cola)

D) Frooti (Parle-Agro)

E) Slice (PepsiCo)

8. What quantity do you usually prefer to buy?

- A) 200-250 ml B) 300 ml
 C) 500 ml D) 1000 ml

9. Which flavor you like the most?

- A) Mango B) Orange C) Pineapple
 D) Mixed fruit E) Guava F) Litchi
 G) Any other

10. Which pack you like the most?

- A) Tetra pack B) Glass bottle C) Can
 D) Plastic Bottle

11. Rate the following parameters:

Parameters	SA	A	NO	D	SD
Cross checked weight of the product					
Check about quality standards					
Check the nutritional value of the product					
Checks MRP before purchase					
Aware about origin of the product					
Ensure expiry date before purchase					

(SA= Strongly Agree, A= Agree, NO= No Opinion, D= Disagree, SD= Strongly Disagree)

9. What is the type of your purchase?

- A) Planned Purchase B) Impulse Purchase

10. In which occasion, you would prefer to purchase packed fruit juices?

- A) Festivals B) Party
 C) Summer season D) Others

11. Rate the following parameters

Parameters→	Price					Quality				
Brands↓	HS	S	N	D	HD	HS	S	N	D	HD
Tropicana										
Real										
Slice										
Maaza										
Frooti										

(HS= Highly Satisfied, S= Satisfied, N= Neutral, D= Dissatisfied, HD= Highly Dissatisfied)

12. Rank the following factors as per the reason for purchasing packed fruit juices

Sl. no	Factors	Rank (1 to 9)
1.	Quality	
2.	Value for money/Price	
3.	Flavour/ taste	
4.	Brand name	
5.	Pack size	
6.	Advertisement influence	
7.	Nutrition value	
8.	Fragrance	
9.	Packaging	

Appendix -2

Questionnaire for Retailer

Personal Information

Name:

Outlet name:

Address:

.....

.....

Contact no:

Information related to packed fruit juice

1. Since how long you are selling fruit juice brand?

A) Less than 1 year B) 1-2 year

C) 2 -3 Year D) More than 3 year

2. Name of the brands you are dealing with

A) Real B) Tropicana C) Slice

D) Maaza E) Frooti E) Any other

Specify;

3. Rate the following parameters based on the brands of packed fruit juice

Parameters→	Margin					Service				
Brands↓	HS	S	N	D	HD	HS	S	N	D	HD
Tropicana										
Real										
Slice										
Maaza										
Frooti										

(HS= Highly Satisfied, S= Satisfied, N= Neutral, D= Dissatisfied, HD= Highly Dissatisfied)