

EFFECT OF PRICE HIKE OF COOKING OIL ON CUSTOMERS BUYING BEHAVIOR

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Abstract

Cooking oil is an integral part of every household. There are different types of cooking oil available in the world. Type of cooking oil and its consumption will vary from country to country.

India is a leading cooking oil consumer in the world along with USA, China. Providing cooking oil to a population over 1.3 billion is a one of many the challenges faced by the government of India. India is not self reliant in cooking oil production. It is highly dependent of import of edible oil from various countries to meet the country's demand.

There are many factors that can affect oil production and raw material. Natural or manmade event can create barriers in production, supplies and consumption of cooking oil. Famine, war, flood, famine, war, economic embargo are some examples of it. In 2022 War between Ukraine and Russia resulted in disruption in edible oil supply to India. As a result the prices of edible oil has a seen a price hike.

This paper is about finding out if the cooking oil price hike has any impact on the buying behavior of customers in Pune.

Keywords: *Vegetable Oil, War, pricing, buying behavior, consumer.*

Introduction

Before we begin the paper we should have understanding of following terms

Terms

Oil

An oil is a substance that is in a thick liquid state ("oily") and has temperature which is warmer. Which is both hydrophobic (don't mix with water) and lipophilic (can mix with other oils, literally).

Edible oil

Edible or cooking oil is fat extracted from plant, animal. It is a liquid at room temperature and is used in kitchen for various purposes. Around the world different kinds of edible or vegetable oils are used like olive oil, sunflower oil, palm oil, peanut oil, grape seed oil, sesame oil are some examples of vegetable oil.

People also used other kinds of vegetable oils for cooking. The term "vegetable oil" is used to label product refers to combine of a variety of oils often based on palm, corn, soybean or sunflower oils. Edible oil of animal origin is e.g. fish oil. Microbial oil is also covered.

What Is Cooking Oil?

It is liquid state of fat that is derived from edible fruits, nuts, and plants. There are three different types of fat namely saturated, monounsaturated, and polyunsaturated fats.

Saturated fat is essential for one's diet. It is essential to increase good cholesterol, and to improve blood pressure.

Monounsaturated fat or (MUFA): They are found in Plant food. It helps in lowering bad cholesterol. At room temperature monounsaturated fats stays as liquid but start to harden when chilled. Examples are sunflower oil, olive oil, sesame oil.

Polyunsaturated fat or (PUFA): It is found in animal and plant food. Polyunsaturated fats include omega-3 and omega-6 fats. These are vital for cell growth and brain functions. Omega 3 fatty acid helps reduce developing risk of irregular heartbeats. Whereas Omega 6 fatty acid controls your blood

sugar. Examples are soybean oil, fish oil like salmon and tuna oil.

Types of Cooking Oil

Coconut oil

It is popular in south India and used in their dishes. It brings wonderful smell and taste. This oil also has medicinal value so it is used for skin and hair care.

Mustard oil

This oil is very popular in North as well as Eastern India. It is rich in vitamin E. It has medicinal value like it helps in blood circulation, digestion and has a anti-inflammatory properties.

Rice Bran Oil

This is extracted from the outer layer of rice. It is not much popular in India. But this oil reduces weight and can help reducing cholesterol.

Sunflower oil

This is very commonly used cooking oil in India. It is made from sunflower seeds. It has vitamin E. it helps in increasing body immune system.

Peanut or Groundnut Oil

This oil is quite popular in Central India as well in the state of Gujarat. This oil is all-purpose cooking oil. It has Vitamin E intake. It is good for the heart and cure skin problem. It can improve bone strength. It is good for diabetes

Sesame Oil

This oil is famous in Rajasthan and in South India in making dishes It has a medicinal importance as it is advised for diabetes and can help in blood circulation and dental health.

Olive Oil

This oil is largely used in Mediterranean countries as prime cooking oil. Many Mediterranean dishes are made using olive oil. It helps to reduce cholesterol. Olive oil reduces joint pains and lowers the risk of Parkinson's and Alzheimer's.

Canola oil

European Union is a major consumer of canola oil. Canola oil is a good source of vitamin E and K. It is rich in omega-3 fatty acid. It is mostly used for deep frying. This oil can reduce blood sugar levels and cholesterols. It is recommended for diabetes and obese patients.

Desi ghee or Ghee

Unique and expensive item in India. It is unique as it carries importance in cooking, medicine and rituals. This can't be compared with other oil as it is not an extract from the seeds but extraction from butter. It has a unique taste, helps in gaining immunity and helps in digestion process

Causes of decline of edible oil in the world

Ukraine is a major sunflower seed producer in the world. In the world the largest exporter of sunflower oil is Ukraine. It is responsible for up to 46% of sunflower-seed and sunflower oil production.

The second largest producer is Russia, which exports about 23% of the world's supply. Both Russia and Ukraine are 75% exporter of sunflower seeds in the world.

Shortfall in sunflower seeds supplies resulted in higher demand for other edible oils. Indonesia declared a embargo on palm oil exports to protect domestic supplies. Disturbed markets worldwide were afraid that it would lead to food inflation.

Palm oil remains the most obsess edible oil in the world and up to 60% of the supply comes from Indonesia.

This act led soybean oil prices to soar to record highs as it profound concerns about already depleted supplies of alternative vegetable oils.

The Russia-Ukraine war has had an huge impact on the edible oil market and once again proved India's weakness to the global edible market.

More than 50% of the world's soybean supply comes from Brazil, Argentina and Paraguay.

Even before the war, global vegetable oil supplies had tightened due to a drought in South America which resulted in the reduction of soybean yield.

In year 2021-22 due to drought there was decline of 35 percent in Canadian rapeseed production from the previous year.

The war in Ukraine pushed prices of agricultural products to historically high levels and raised concerns about global food security. As with a number of other commodities, prices for many vegetable oils were at very high levels prior to the Russian invasion in February 22. From the time war started vegetable oil prices have raised by almost 30 per cent in average.

India's dependency

India is a second largest populous country in the world. Providing food to 1.3 billion people is a challenge. India the largest importer of edible oil (15 per cent globally) and import values ranges between 66,000-1,41,000 crore.

It is estimated that the edible oil requirement in India will go up from 267.1 lakh tonnes in 2021-22 to 300 lakh tonnes in 2030-31. The production of edible oil, however, will go up from 126.4 lakh tonnes to 228 lakh tonnes during the same period, leaving a gap of 72 lakh tonnes.

Palm oil (raw + refined) makes about 62 per cent of the total edible oils imported from Indonesia and Malaysia, while 22 percent soybean oil is imported from Argentina and Brazil. In India 15 per cent is sunflower oil is imported mainly from Ukraine and Russia.

International prices of edible oils are under pressure due to the shortfall in global production and an increase in export tax/levies by the exporting countries.

Consumption of Edible oil in India

India was more or less self-sufficient to fulfilling that need in 1980's and 1990s era, when edible oil consumption was at 6-7 kg per person per year. India is the world's second largest consumer and number one importer of vegetable oil. Due to urbanization food habits are changing very rapidly. Traditional meal patter is slowly shifting to processed food. All the process food has a high content of vegetable oil. In India Vegetable oil consumption will remain high due to high population growth in India. As per the Organization for Economic Co-operation and Development (OECD) Food and Agricultural Organization (FAO) Agricultural Outlook 2021-2030, India is projected to maintain a high per capita vegetable oil consumption growth of 2.6 per cent per annum reaching 14 kg/capita by 2030 calling for a high import growth of 3.4 per cent per annum.

Types of Oils commonly in use in India

India has a diverse physiographic features As a result varied climatic zone resulted in wide range of oilseeds crops grown in these fields. Groundnut, sunflower, mustard. Sesame, rapeseed, linseed, nigerseed, castor are the major traditionally cultivated oilseeds. Sunflower and Soybean became

importance in recent years. Coconut is most important amongst the plantation crops. Rice bran oil and cottonseed oil non-conventional oil which is also important in oilseed crops.

According to Statistica most commonly used edible oil in India is as below Till April 22

Sr.No.	Name of the Oil	Percentage
1	Sunflower	25
2	Peanut	21
3	Mustard	18
4	Coconut	9
5	Vegetable or Canola	7
6	Sesame	6
7	Olive	4
8	Palm	2

Edible Oil Manufacturing Process

The production practice of vegetable oil extraction starts from the removal of oil from plant components, typically seeds. It can be done using mechanical extraction in an oil mill or chemical extraction using a solvent. After the extracted of oil purification is required. It also undergoes refined or chemically altered if required.

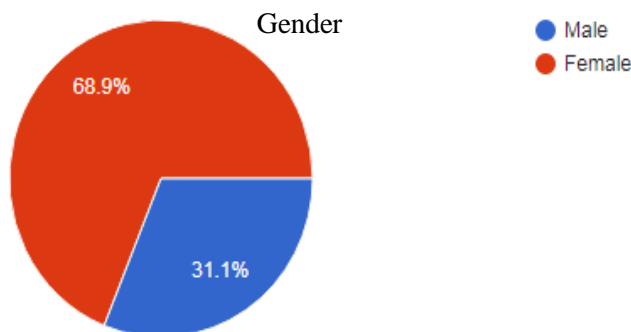
Mechanical Extraction: Generally termed “crushing” or “pressing.” India uses Ghani method.

Method	Extracted
Ghani	20-30%
Expeller	34-37%
Solvent	40-43%

Solvent Extraction: The processing of vegetable oil in commercial applications is commonly done by chemical extraction, using solvent extracts, which produces higher yields and is quicker and less expensive. The most common solvent is petroleum-derived hexane. This technique is used for most of the “newer” industrial oils such as soybean and corn oils.

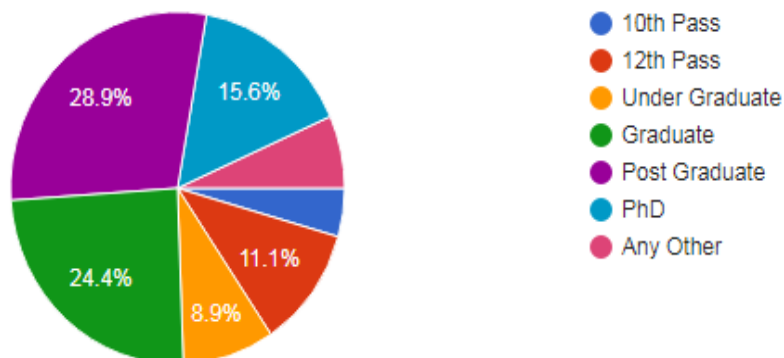
Data collection & Data Analysis

Data collection with the Google form sends to the respondent on their concern Email ID for 100 respondents. Out of which just 45 respondents gave all over and full answers. The 55 forms were incomplete. So for the analysis sample size is just 45.

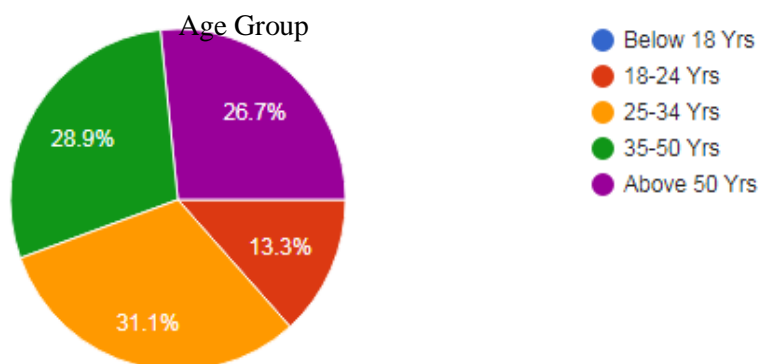


Out of 45 68.9% female & 31.1 % male responded. As we observed even though all gives the thoughts of Gender equality but here also the perfect inequality in the result only 31.1% male fill the

form of the edible oil where 68.9 % female think of all about the cooking oil as type ,brand ,price & quantity .

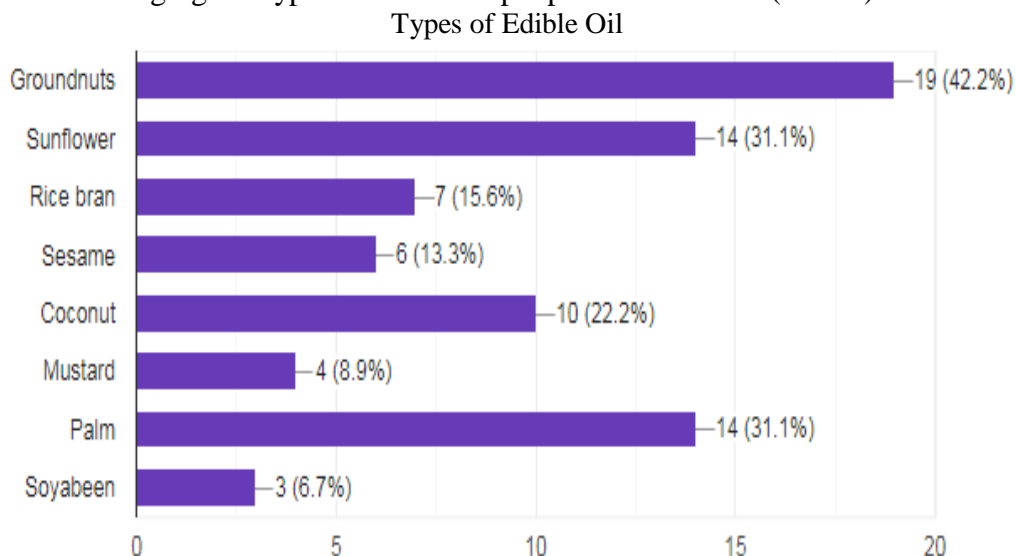


We want to check with the Education level and the use of edible oil .It gives the highly educated think of the type of oil and even the use of quantity of oil. There is positive correlation between the education & use of oil type and quantity even with cost. This generation is found of more fitness .Always think of the quantity of food than quality.



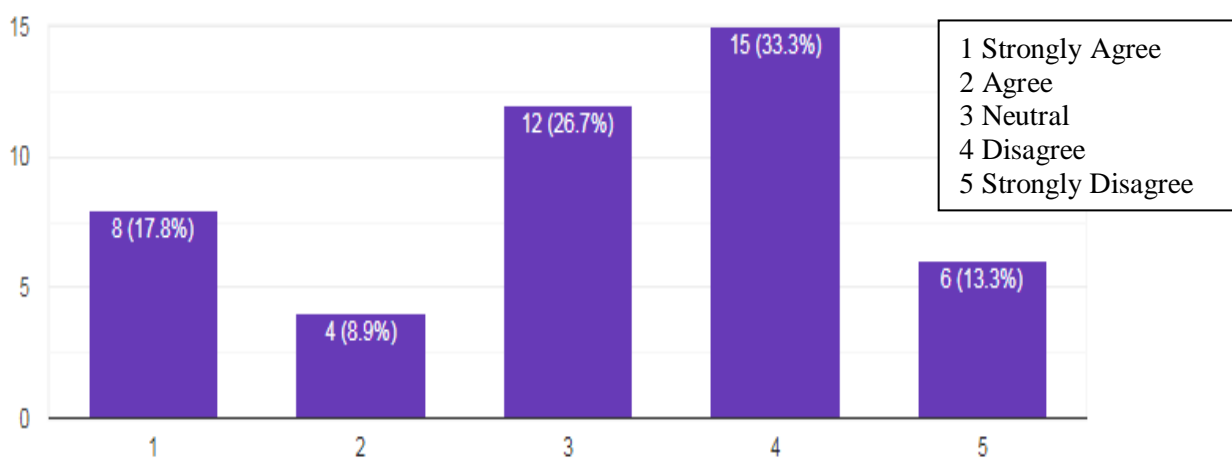
Age grouping revealed that respondents between the ages of 25 and 34 were more particular about how they used their oil and how much it cost. While this cohort has only recently completed their degree and begun their careers, carriers and businesses have had time to consider the oil use kind, price, and brand. Just 13.3% of respondents in the 18–24 age range and those under 18 did not reply. 35–50 annually respondents are knowledgeable about oil's quality, quantity, brand, and kind. This group as a whole considers the price of oil at 28.9%. When considering pricing, not just amount but also the brand of the oil, 26.7% of those who are 50 years and older who are planning to retire do so. Age group also affected the price and type of oil because people between the ages of 25 and 34 were particularly concerned with their health and appearance. Out of 45 replies overall, 26.7% mentioned the impact of the change and the type of oil.

Due to the population's origin in Maharashtra (Pune), a maximum of 42.2% of people use groundnut oil and a minimum of 6.7% use soybean oil. Since Pune is now a hub for the IT industry, a multicultural population may have contributed to the finding that 22.2% of people consume coconut oil. A portion of the population has also been proven to be more physically fit and healthy while using blended oils or changing the type of oil. These people use rice bran (15.6%) and sunflower oil

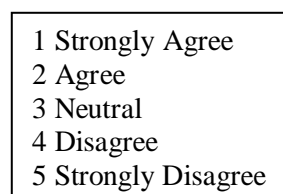


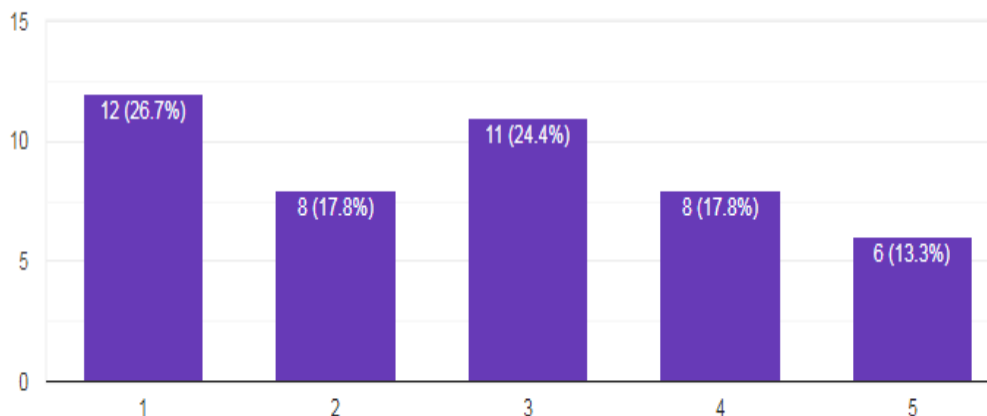
(31.1%) as substitutes for each other. Sesame oil is used in 22.2% of households for pickles, joint pain relief, and religious purposes. According to a poll, 22.2% of people use coconut oil for cooking, medical procedures, and cosmetic procedures. Today, mustard oil is also used for cooking, pickling, and massage. For roadside ramblings, 31.1% of the cooking is done with Pam oil. The most affordable foods include wada pav, bhaji, and samosa similar to varieties from Snacks. In the region where soybean oil is also used for cooking, it is used 6.7% of the time.

The Price of The Product Affects Consumer Purchases

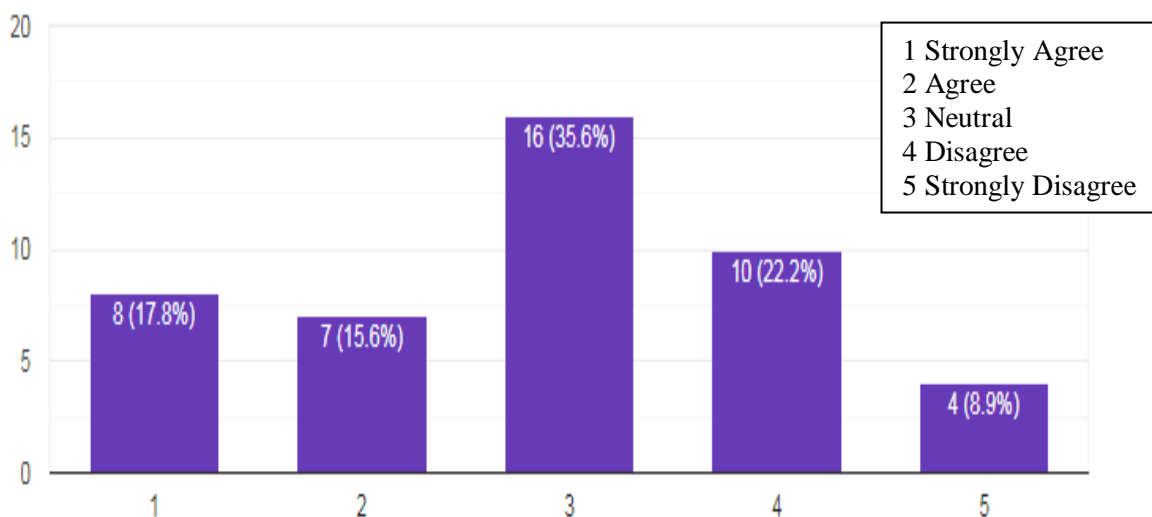


The Quality of Product Affects Consumer purchases





The Brand of Product Affects Consumer Purchases



1 Strongly Agree
2 Agree
3 Neutral
4 Disagree
5 Strongly Disagree

	1 The Price of the Product affects your purchases	2 The quality of the product affects your purchases	3 The brand of the product affects your purchases
Mean	3.16	2.73	2.89
SD	1.3	1.39	1.21
Correlation	r12=0.54	r13=0.53	r23= 0.73

With correlation coefficient test with the variables PRICE, QUALITY & BRAND shows r in price & quality is 0.54 greater than 0.50 so when price increases then also the consumers don't adjust much with the quality. Only 33% change the quality means the type of the oil. But maximum 77% go with the same quality.

When we see the Quality & Brand then the correlation coefficient is $r = 0.73$ much greater than 0.50 means there is high correlation between these two.

Price & Brand gave the correlation 0.53 means as price increases the brand change only by 30% consumers but 70% buy the same brand.

Conclusions

- 1) Survey gave the results of variables PRICE, BRAND, QUALITY & TYPE OF OIL.
- 2) Just 30% were change the brand and quantity when price hike.
- 3) Use of oil is concern with the health consumers not in mind set to change it.
- 4) Price & Brand are highly correlated.
- 5) Price & Quality are moderately correlated.

Limitations

Survey is just taken with the Pune city urban area so may change the results with the rural areas. The target audience is middle income group.

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