

Business Economics Research Project

Basmati Rice

Roll No. :- 08

Jash Dattani



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Introduction

India possesses an immense wealth of Basmati and non-Basmati aromatic rice varieties exhibiting a wide variability in their grain quality and cooking characteristics. India is a major producer of basmati rice and accounts for almost 70% of the world production and nearly two-third of the country's produce is exported.

In this study, you will find all the necessary information about Basmati rice cultivated in India, its SWOT analyses, availability and export imports. Along with all of these you will also find a survey conducted which is restricted to females living in Mumbai, Maharashtra to better understand the consumer behavior and their buying habits with regards to Basmati rice.

Methodology

Survey method was executed to collect primary data from consumers. (Refer: [Survey Link - Demand](#) for the demand survey questionnaire and Refer: [Survey Responses - Demand](#)). Conducting primary research is necessary for this study as there is little secondary information available for analysing demand, supply and other characteristics of Basmati Rice. Surveys offer a way to measure the opinions and interests of a specific group. As a result of the lack of secondary data, surveys were designed and aligned with the research objectives. An online survey was designed with the help of Google Forms to analyze the product features, availability, demand, etc of Basmati Rice and was intended to target consumers who purchase Basmati Rice. The main modes used to distribute the survey URL were WhatsApp, E-Mail and Instagram. The mediums used to approach the suppliers were emails, Instagram and physical approach. The survey designed to analyze the demand of Basmati Rice was targeted only to individual consumers, mainly females and not to restaurant or other eateries.

Assumptions

- ❖ It is assumed that the respondents have understood and completely interpreted any and all of the questions and information provided.
- ❖ It is assumed that each response is truthful and honest.
- ❖ The study is based on the primary data collected and the sample is assumed to be the sample population.
- ❖ It is assumed that the economy is a closed economy which means that there are no imports and exports.
- ❖ After a primary research and physical enquiry, it is assumed that the current market price of one Basmati Rice is ₹150/kg.

Limitations

The survey that was targeted to consumers received a total of 38 responses. The study is restricted to consumers and suppliers in Mumbai. This makes the study specific to the smaller sample populations instead of being more general conclusions. By using WhatsApp, E-mail, Instagram, etc to distribute the survey, it subjects the survey to what is known as the snowball effect. Instead of attaining a random sample, the survey uses a convenience sample method and is subject to exclusion of those people without access to a phone or internet that actually are consumers of Indian Basmati Rice. Like the survey was only sent to females residing in Mumbai as they are assumed to have complete knowledge about the product, but this adds gender and geographical barrier to our primary information collected.

Product Analysis

Basmati Rice is a variety of long, slender-grained aromatic rice, which hails traditionally from the Indian subcontinent. ‘Basmati’ derives from the Sanskrit word ‘*basamati*’, which literally means ‘fragrant’. It is believed to have been cultivated in the Indian subcontinent for centuries and is an important part of various cuisines of the Indian subcontinent. It is also used extensively in Central Asian, Persian, Arab, and other Middle Eastern cuisines as well. This rice is grown and exported from the Indian subcontinent to various other countries.

India accounts for over 70% of the world's basmati rice production. As of 2018-19, India exported to 65% of the overseas basmati rice market, while Pakistan accounted for the remainder.

Some facts to know about Basmati are:

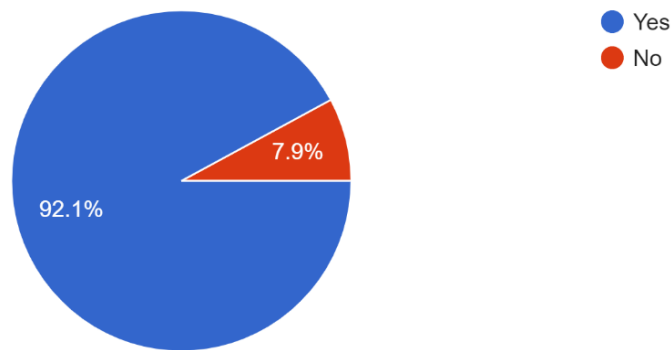
- Basmati Rice gets its unique aroma from a cocktail of 100 different compounds like hydrocarbons, alcohols, aldehydes and esters. 2-acetyl-1-pyrroline plays the main role in constituting the aroma.
- Basmati Rice can be grown only in the Northern Indian states of Punjab, Delhi, Himachal Pradesh, Haryana, Uttarakhand, and parts of western Uttar Pradesh and J&K.
- Several varieties of Basmati are now grown in the U.S., such as ‘Texmati’ and ‘Kasmati’, and all are growing in popularity. Their flavor is very good, but not quite up to real Indian Basmati.
- Basmati rice contains high nutritional value because it is rich in vitamin B and antioxidant elements.
- According to the Diabetes Association of Canada, Basmati rice has a lower glycemic index than any other rice. It does not increase the blood sugar, which means lower insulin responses within a meal.
- As compared to any other brown rice, Basmati rice contains nearly 20% more fiber. The biggest benefit of fiber is its ability to prevent the formation of cancerous cells especially colon cancer.
- The earliest reference to Basmati rice could be found in the Punjabi tragic romance ‘Heer Ranjha’ (1766) by Waris Shah.

Consumer Behavior

This study has been taken up to understand the consumer awareness levels, purchase pattern, preference for brands and attributes they look for in a brand with respect to basmati rice.

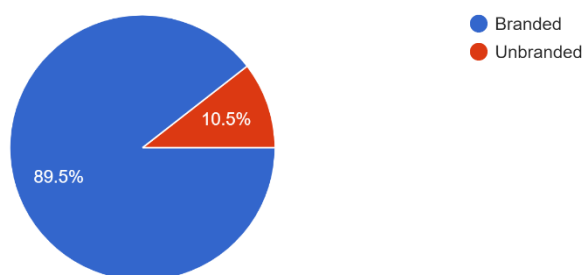
The survey conducted among females living in Mumbai were asked if they consume Basmati rice and was noticed that out of total 38 respondents, 35 of them consume Basmati rice on regular basis.

Do you consume Basmati rice?

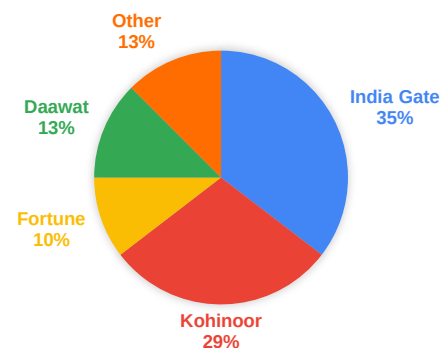


Rice is the largest wholesome food in the entire Indian subcontinent, and eating it, is like maintaining a traditional value. Understanding this, we have variety of rice produced in India regards to seller (branded or unbranded) and types like white, brown, basmati, etc. According to the survey, almost 90% of the respondents consume branded Basmati rice only. Kohinoor, Daawat, India Gate and Fortune are among the top brands in India and the rest of the respondents consume unbranded or local rice available at the 'Kirana Stores' near them. Among these, India Gate and Kohinoor are among the most preferred brands.

Do you prefer Branded or Unbranded Basmati rice?



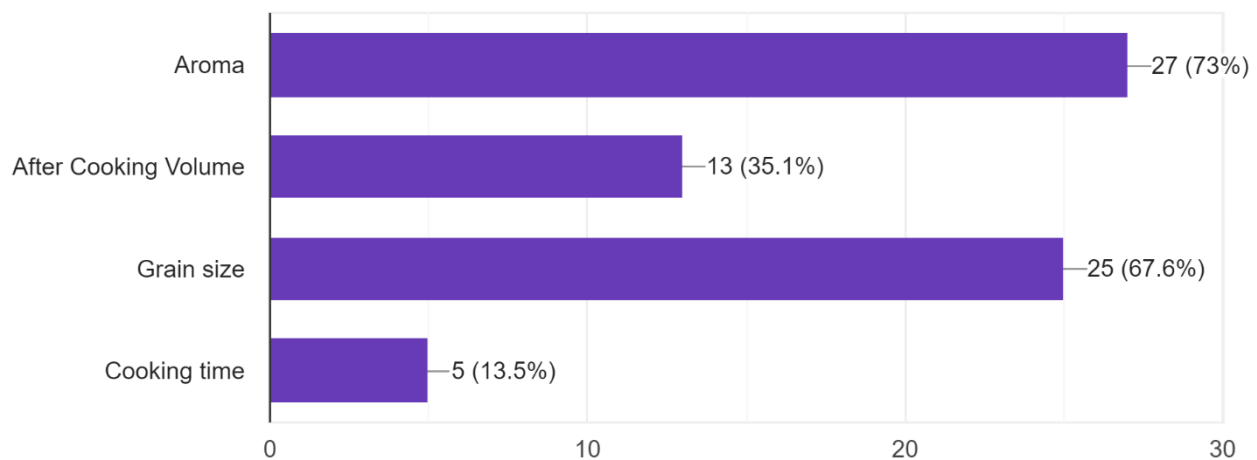
Which brand do you prefer?



Reasons for buying Basmati rice

There are various attributes that are preferred by consumers while purchasing basmati rice. The aromatic rice grown at the Himalayan foot-hill is blessed with characteristics extra- long slender grains with characteristics of soft and fluffy texture upon cooking, delicious taste, superior aroma and distinct flavor, Basmati rice is unique among other aromatic long grain rice varieties. Upon cooking, basmati rice elongates to almost twice its size while not fattening significantly. Hence, it maintains its elongated shape even after cooking. At first glance, basmati rice likely doesn't look all that different from other types of rice. Basmati rice has a very distinct smell that many describe as being similar to popcorn when it's cooked. In fact, the word "basmati" in Hindi means "full of aroma" or "fragrant." In some places, it's called the "queen of perfumed rice." Upon asking what are the attributes one searches for while purchasing Basmati rice, it was found that the aroma and grain size are one of the most wanted qualities followed by after cooking volume.

What are the qualities you like in Basmati rice?

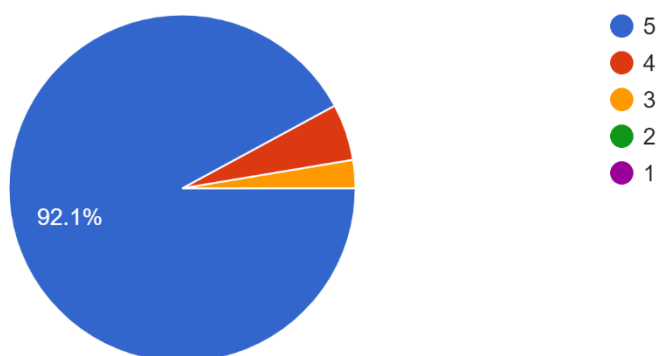


Ease of Availability

Rice is a staple food in India and is generally easily available. So is the case with Basmati rice. With various options in branded and unbranded rice, and different variety of basmati rice in each brand, the reach to the consumers is pretty good as seen in the survey as it is observed that over 92% of respondents have rated 5 points on availability of Basmati rice.

How easily is Basmati rice available to you?

(5 = Easily available, 1 = Not easily available)



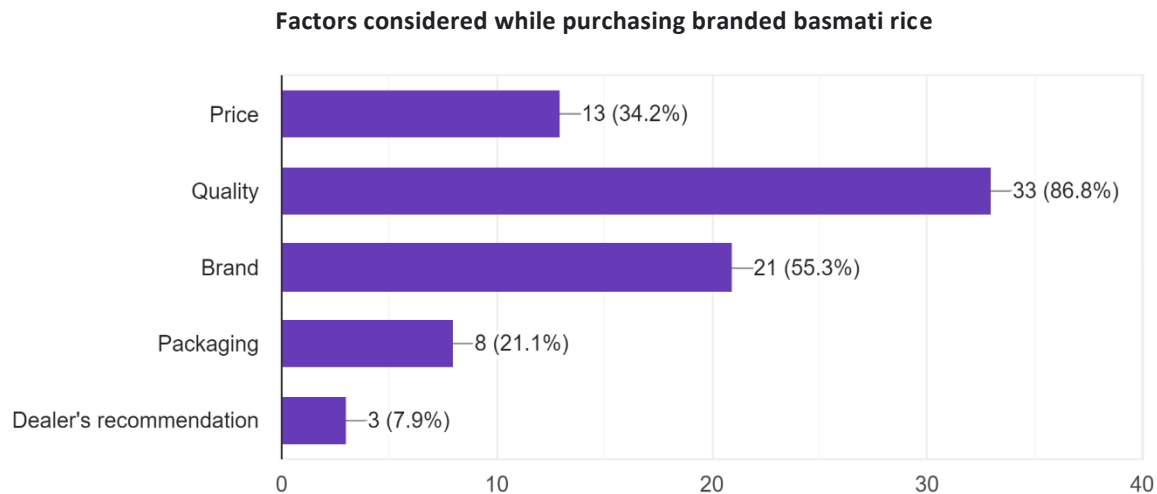
So far 34 varieties of Basmati rice have been notified under the seeds Act, 196. And all the brands have different types of products under sale depending upon the place of production and its characteristics.



Demand Analysis

One of main purpose of the study was to understand the demand for Basmati rice and the factors driving it. India produced 8 million tonnes of Basmati in the year 2020 which was 7% higher than last year despite the pandemic.

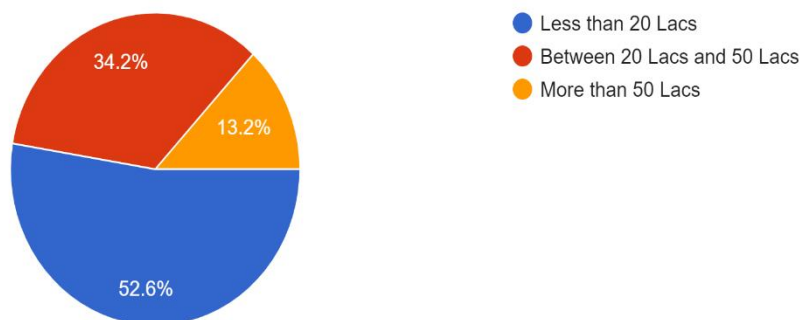
To understand the thought process of the consumers, we tried to figure out what are the factors that affect the buying of Basmati rice. It was recorded that the quality of the basmati rice stood as the most important factor while buying followed by brand and then price.



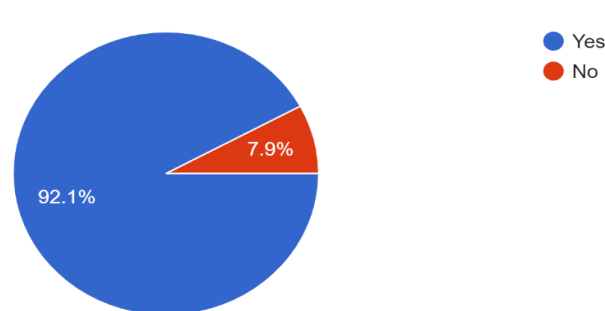
This shows that price is not the most important factor in purchasing Basmati rice, which proves that rice is the staple food of India and Asia.

This can also be seen in another question asked in the survey, the respondents were asked about their family income range and was noticed that more than 50% had income below 20 Lacs and more than 85% had income less than 50 Lacs. While majority had relatively low income, as discussed earlier, more than 90% consumed Basmati rice.

Family Income Range

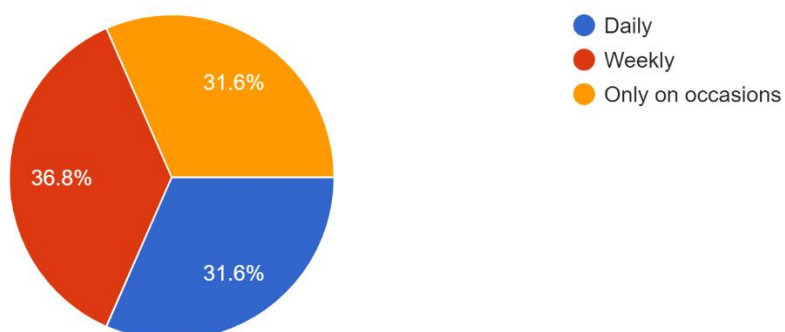


Do you consume Basmati rice?



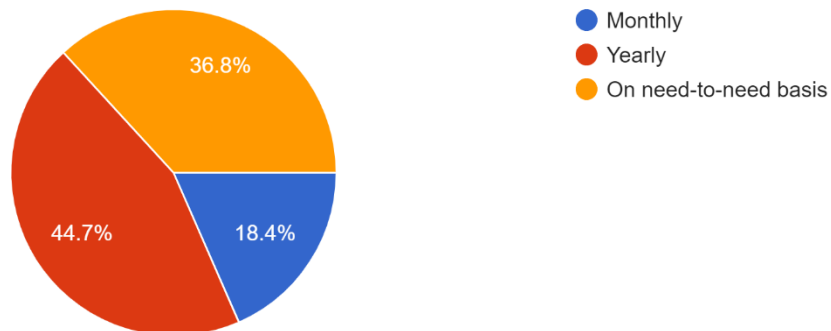
Another major factor affecting the demand of a product is frequency of consumption. As we already know, it is an integral part of the staple diet of Asians, it is regularly consumed in day-to-day meals.

How often do you consume Basmati rice?



Although most of the consumers consume Basmati rice regularly, the buying is not frequent. Eventually the demand of Basmati is mainly on annual basis, as it is a culture in India to store grains at the start of the years. This is another testament of why price is not a major factor affecting demand of Basmati.

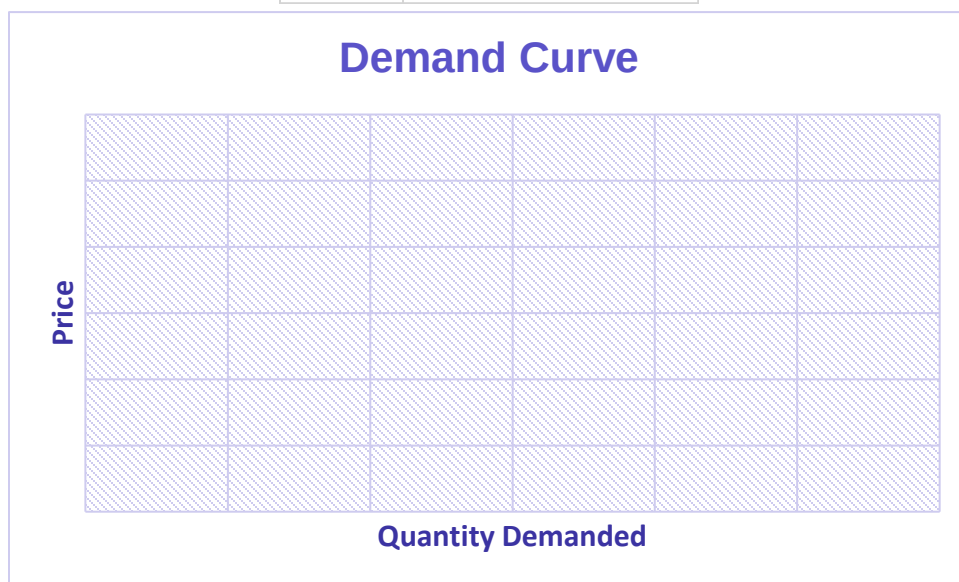
How often do you purchase Basmati rice?



Demand Curve

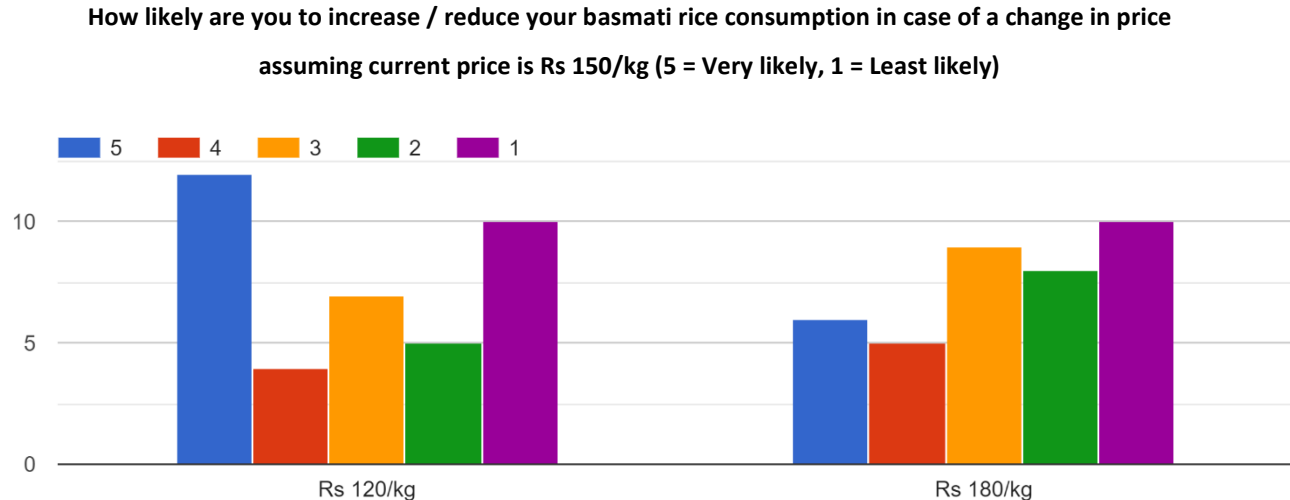
According to factors affecting demand and the dependency on price, we have seen above that the demand is not greatly affected. The demand curve of Basmati rice would be a relatively gentler slope. Thus, it proves the law of demand that demand is inversely proportional to the price of the product under the assumption of *ceteris paribus*. The schedule and graph of the same would look something like,

Price	Quantity Demanded
110	480
100	500
90	520



Elasticity of Demand

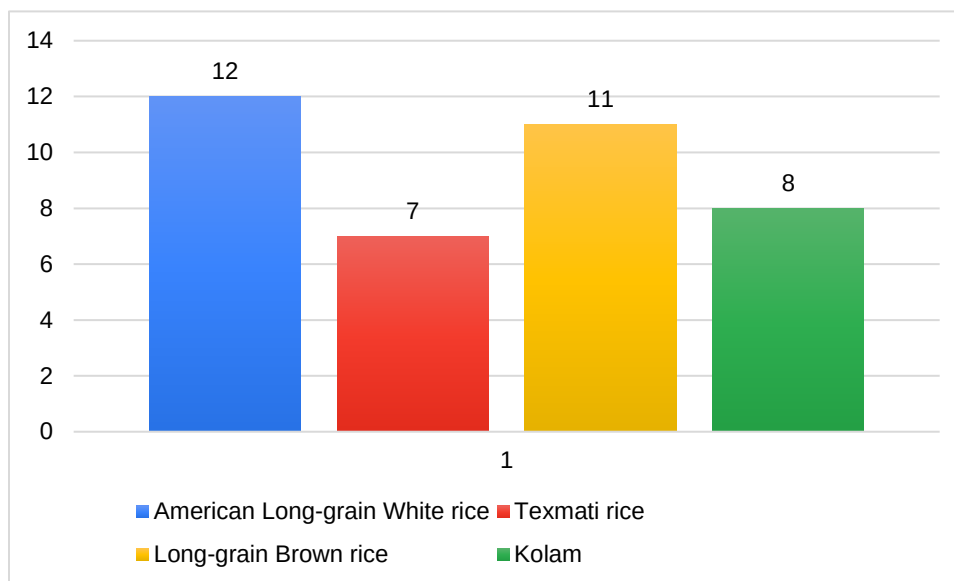
As discussed earlier, Basmati rice is relatively inelastic to price and income. That being said, Basmati rice still comes under a premium category of rice and thus is not completely inelastic. The price of rice is controlled by the APEDA (Agricultural and Processed Food Products Export Development Authority) or the Ministry of Commerce & Industry, thus it is very unlikely to see a high shift in the prices. The respondents were asked how likely they are to increase or decrease their demand if the price changes. The average price is assumed to be Rs 150/kg according to the market conditions. It was observed that if the price is reduced to Rs120/kg, the consumers are very likely to increase their demand, but if the price increases to Rs 180/kg they are not as likely to decrease their demand.



Other factors affecting the elasticity of demand are the availability of Substitute goods and Complementary goods. Since Basmati rice is a little premium quality of rice produced in India, the direct substitute of it would be the regular white rice. They are extensively consumed in all parts of the country in daily meals. Other substitutes that have emerged are American long grain white rice, Brown rice, Texmati rice, etc. They have grown in popularity due to their distinct

features like the brown rice which is a rich source of dietary fiber, which can reduce your risk of death from heart disease. Brown rice also contains high levels of magnesium, which can help make you less vulnerable to heart disease and stroke.

Substitutes available for Basmati rice



When asked what is Basmati rice consumed with, majority answered with Tuvver dal and lentils. A consumer durable, convenience good complements with one of its kind of good. Thus, a change in price of its complementary would not have a significant impact on Basmati rice.

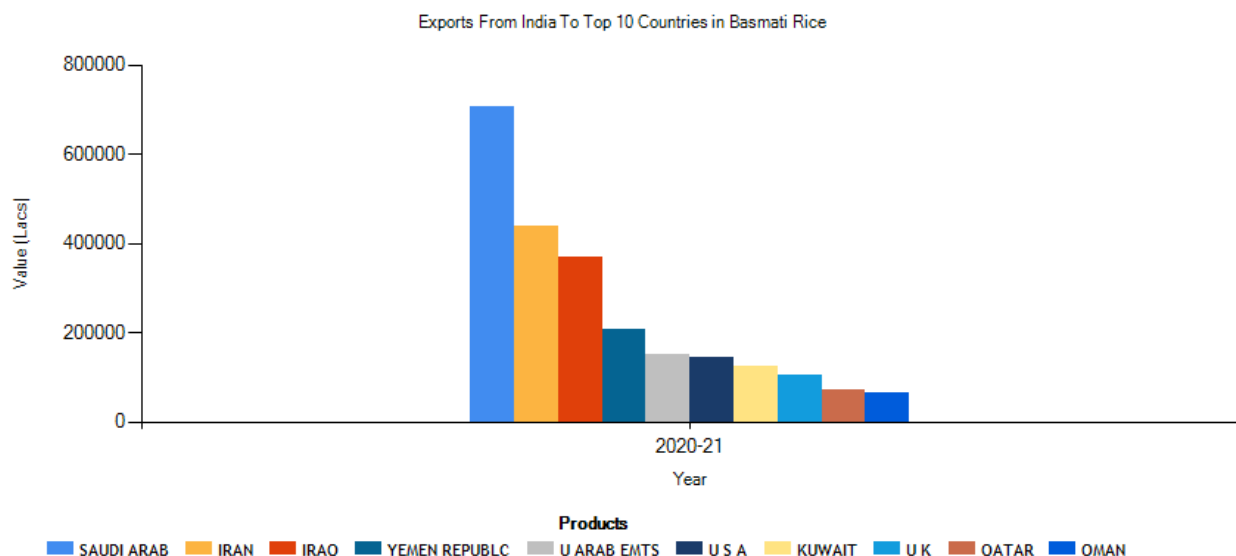
Market Analysis

India is suitable to cultivate almost all the fruits, vegetables and cereals because of its wide range of climatic conditions. India is not only abundant in various agricultural resources but its most important economic activity is agriculture. Agricultural activity accounts for about 43% of the land in India.

The global basmati rice market is being aided by the superior quality, taste, and aroma of the product, which are driving the consumer preference for the product. The basmati variety forms an integral part of the Middle Eastern cooking. It is used to cook lavish dishes which contain

layers of rice, meats, and dried fruits. It also forms a part of the staple diet of many cultures, thus, further aiding the industry growth. The increasing export demand from the Middle Eastern countries is also propelling the global basmati rice market forward. The US and Europe, too, are significant importing countries.

The rising population is also acting as a catalyst for the growth of the global basmati rice market. The increasing disposable income in the major consuming nations is driving the market growth. The rising disposable income is leading to increased consumption of premium products and, thus, is providing further impetus for the global basmati rice market growth as basmati rice is perceived as a premium variety. With the increasing health consciousness among the consumers, the basmati variety is being increasingly preferred due to being rich in nutritional value and having a lower fat content.



Regulations on Sale of Basmati rice

The manufacturers of rice who sell rice under Registered Brand name are liable to GST @ 5% on such sale of rice. Those manufacturers who sell rice under unregistered Brand name foregoing their actionable claim or enforceable right on such brand name by filing an affidavit and printing disclaimer on unit container to that effect are exempted from GST.

Supply of Basmati Rice

Basmati rice availability in Mumbai is very good with rating of 5 in the survey as discussed earlier. And most of the consumers prefer branded Basmati which also helps in ease of availability.

India is the leading exporter of the Basmati Rice to the global market. In 2018, its production attained almost 5.03 million tons. The country has exported 46,30,463.14 MT of Basmati Rice to the world for the worth of Rs. 29,849.89 Crores during the year 2020-21. Thus, it is seen that more and more producers are entering the Basmati rice market and subsequently the price has also risen over the years. Empirically and logically, it can be inferred that the supply curve is upward sloping. Which means that suppliers sell more quantity of Basmati rice at higher prices and less quantity of Basmati rice at lower prices.

The global basmati rice market is being aided by the rising export demand for rice, globally. Basmati rice accounts for 2.1% of the total rice production. In 2020, the global production of rice reached almost 497.76 million metric tons. The Basmati rice market is projected to register a CAGR of +6% during the forecast period (2019- 2024).

Conclusion

- Rice is a very important part of the diet in the Asia Pacific region and India is the second largest producer of rice after China.
- Basmati rice is a premium variety of rice produced only in India and Pakistan of which, India contributes 70% of the global output.
- It is mainly produced in the north and north-eastern region of India and has 34 identified varieties produced.
- Consumption of Basmati rice is majorly branded and a few of the major brands are India Gate and Fortune.
- Basmati rice is famous for its aroma and its elongated shape which it maintains even after cooking.
- Demand for Basmati rice has been increasing as the disposable income has been increasing and people are getting more and more aware about its health benefits.
- Basmati rice is a Consumer durable good and thus is not price elastic or income elastic to a great extent.
- Middle East and Iran are among the major output centers for India and the global demand is increasing.
- Basmati rice growth is projected at 6% CAGR for next few years.

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