Market Segmentation

Analyzing the respective market in India using Segmentation analysis for a Tea Company .
By Apram Singh Bhatia, Caina Rose Paul, Siva Narayana Mamidi

Overview

Analyzing the tea market in India using Segmentation Analysis to come up with a feasible strategy to enter the market, targeting the segments most likely to use their product.

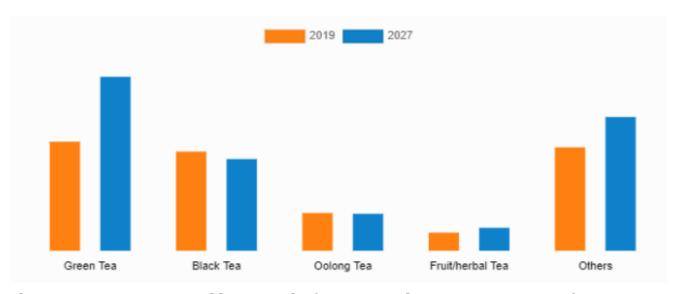
Market segmentation is a decision-making tool for the marketing manager in the crucial task of selecting a target market for a given product and designing an appropriate marketing mix. Market segmentation is essential for marketing success, the most successful firms drive their businesses based on segmentation. Segmentation analysis is an important step before we embark on a marketing plan. It is important to learn how to analyze your audience and market. The tea market has been segmented based on type, packaging, distribution channel, application, and region. By type, the market has been divided into green tea, black tea, oolong tea, fruit/herbal tea, and others. Based on packaging, it is fragmented into plastic containers, loose tea (packets and pouches), paperboards, aluminum tins, and tea bags. By distribution channels, the tea market is categorized into supermarkets/hypermarkets, specialty stores, convenience stores, online stores, and others. Applications covered in the study include residential and commercial.

Market Overview

Tea is an aromatic beverage derived from the Camellia Sinensis plant. It is one of the most consumed beverages in the world. Black tea and green tea are the most popular tea while herbal tea is gaining popularity. Tea is considered a healthy beverage owing to the presence of several potent antioxidants, and minerals such as potassium, manganese, magnesium, & calcium.

The global tea market size was valued at \$55,144 million in 2019 and is projected to reach \$68,950 million by 2027, registering a CAGR of 6.6% from 2020 to 2027. The green tea segment was the highest contributor to the market, with \$16,362 million in 2019, and is estimated to reach \$26,110 million by 2027, at a CAGR of 9.8% during the forecast period. China is one of the prominent regions in the market that accounted for a sizable share of the total market in 2019.

Tea Market (By Type)

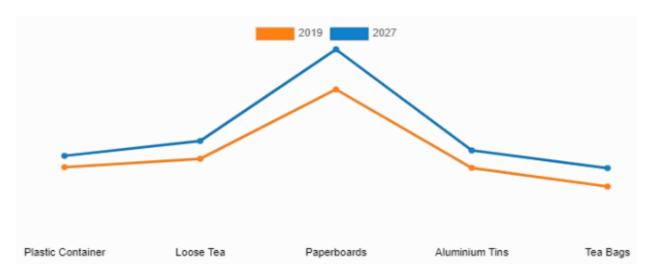


The Green Tea segment would witness the fastest growth, registering a CAGR of 9.8% during the forecast.

Based on the tea market analysis, the black tea segment generated the highest revenue in 2018 and is expected to remain dominant throughout the forecast period. This can

be attributed to the rise in the number of tea drinkers worldwide. Furthermore, a high concentration of antioxidants and polyphenols makes black tea very popular. However, the green tea segment is expected to grow at the highest CAGR throughout the forecast period. This can be attributed to a rise in awareness about health and fitness and a rise in the number of educated tea consumers. Moreover, an increase in the frequency of direct-to-customer advertising and celebrity endorsements also boosts the growth of this segment in the tea market.

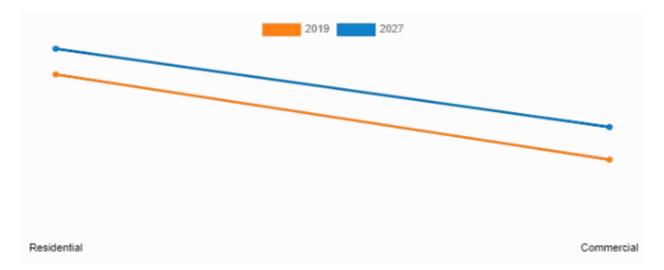
Tea Market (By Packaging)



The tea bag segment would witness the fastest growth, registering a CAGR of 7.7% during the forecast.

Based on the tea market forecast, the paperboards were the most prominent segment accounting for the highest share in the global tea market. This can be attributed to their remarkable design flexibility and excellent barrier properties. However, the tea bags segment is expected to witness the highest growth, owing to the convenience it offers over loose or differently packaged tea as brewing tea with tea bags is very easy as well as disposal of the used tea bag is even more convenient.

Tea Market (By Application)



The commercial segment would witness the fastest growth, registering a CAGR of 8.5% during the forecast.

By application, the residential segment is the most prominent regional market. This can be attributed to the surge in consumption of caffeine beverages at home. However, the commercial segment is expected to grow with the highest CAGR throughout the forecast period, owing to increased spending of the consumers on cafes and hotels as well as increasing tea and coffee available at the workplace.

Market Segmentation

The tea market has been segmented based on type, packaging, distribution channel, application, and region. By type, the market is divided into green tea, black tea, oolong tea, fruit/herbal tea, and others. Based on packaging, it is fragmented into plastic containers, loose tea (packets & pouches), paperboards, aluminum tins, and tea bags. By distribution channel, the tea market is categorized into supermarkets/hypermarkets, specialty stores, convenience stores, online stores, and others. Applications covered in the study include residential and commercial.

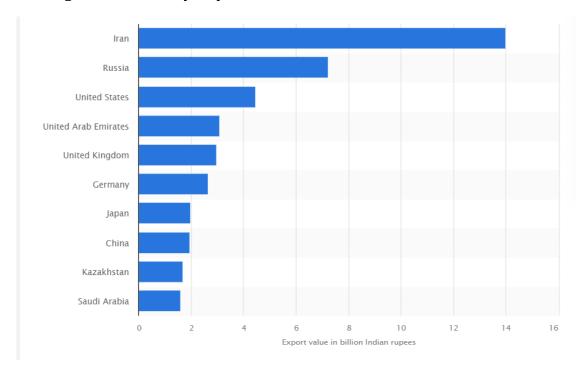
Increasing demand for natural food products has contributed towards increasing market revenues of the tea market. Furthermore, the rise in café culture, growth in disposable income, change in tastes of people, and introduction of additional healthy ingredients in tea by different market players are some other factors that drive the growth of the market. However, an increase in the cost of raw materials due to unpredictable weather, high cost of production, and increase in trend of coffee consumption are expected to hamper the growth of the market during the forecast period. Growth in demand from a health-conscious young population and introduction of new flavors & variety is anticipated to provide lucrative opportunities for expansion in the market.

Segmentation Analysis

Export

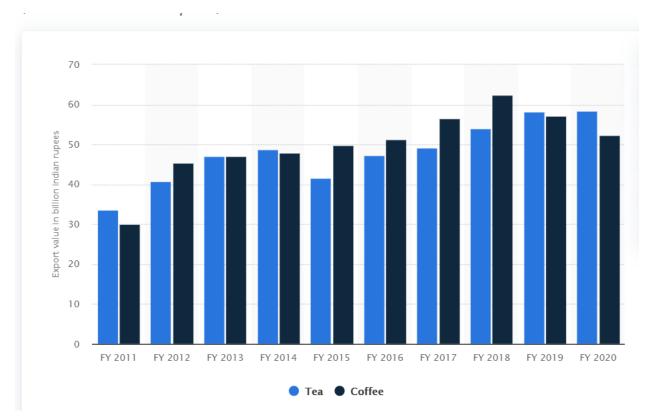
India stands fourth in terms of tea export after Kenya (including neighboring African countries), China, and Sri Lanka. Total tea export stood at US\$ 830.90 million in FY19 and US\$ 826.47 million in FY20. As of 2019, India was the second-largest tea producer in the world with a production of 1,339.70 million kgs. In April 2021, estimated tea production in India stood at 73.44 million kgs. The total tea export was US\$ 755.86 million from April 2020 to March 2021 and for March 2021 it was US\$ 53.35 million. In April 2021, the export of tea stood at US\$ 49.73 million.

Looking into the country imported the Indian tea:



India exported tea worth 13.98 billion Indian rupees to Iran in the financial year 2020. Even though Iran imported the highest worth of Indian tea, Russia imported the highest volume of tea-producing Indian tea that same year.

Value of tea and coffee exported from India from the financial year 2011 to 2019, with an estimate for 2020



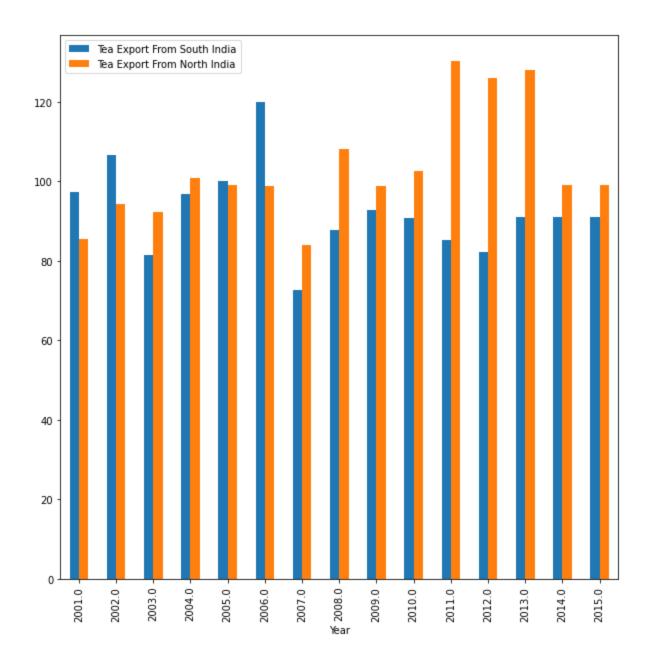
(In billion Indian rupees)

In the fiscal year 2020, the export value for Indian tea was over 58 billion rupees. The value of coffee exported was about 52 billion rupees from the south Asian country, a decline from the previous year. This seemed to be because of torrential rains and flooding in the coffee plantation regions of the country.

Tea Export

Year	Tea Exports from South India	Tea Exports from North India	Tea Exports from Indiaproducing Indian area producing Indian
2001	97.2	85.4	182.6
2002	106.6	94.4	201
2003	81.5	92.2	173.7
2004	96.8	100.8	197.6
2005	100.1	99	199.1
2006	119.9	98.8	218.7
2007	72.7	84.1	156.8
2008	87.8	108.2	196
2009	92.7	98.8	191.5
2010	90.8	102.5	193.3
2011	85.2	130.2	215.4
2012	82.3	125.9	208.2
2013	91	128	219
2014	N/A	N/A	207.4
2015	N/A	N/A	228.6

Tea Export(in M.kgs)



The null data is replaced with median.

```
for x in df.columns:
if (np.dtype(df[x]) == 'float' or (np.dtype(df[x])) == 'int64'):
     df[x] = np.where(df[x].isnull(),df[x].median(),df[x])
```

The tea export from India has increased over the years. India is the fourth largest exporter of tea in the world tea market, India's tea is still highly demanded in the international market. It exported 182.6 m kgs in 2001 and it has increased to 228.66 m.kgs in 2015.

As far as South India is concerned, there has been a decrease in the quantity of tea exported over the years. In 2001, the total quantity of tea exported was 97.2 m.kgs. which has decreased to 91 m. kgs.in 2013.

The fall in tea exports from South India has been compensated by North India, where there has been a continuous increase in tea exports. It has increased from 85.4 m.kgs. in 2001 to 128.06 m.kgs. in 2011. This is because of the continuous increase in tea production supported by the leading tea producers namely Assam and West Bengal. South India is a leading exporter of tea in the world. It is meeting 17 percent of the world's demand for tea. The tea exported from South India is meeting the requirements of the people of 30 countries

The Area Under Tea Cultivation

	Area Under Tea In	Area Under	Area Under Tea In	Area Under Tea	Area Under Tea
Year	Tamil Nadu	Tea In Kerala	Karnataka	In South India	In India
2001	75625	36940	2128	114693	509806
2002	75619	36967	2128	114714	515832
2003	75619	36967	2128	114714	519598
2004	75978	37107	2128	115213	519598
2005	80939	36772	2112	119823	521403
2006	81279	36236	2137	119649	567020
2007	80903	37139	2141	120181	578458
2008	80903	37139	2141	120181	579353
2009	80903	37139	2141	120181	579000
2010	80903	37139	2141	120181	579400
2011	80903	37139	2141	120181	579400
2012	80460	37140	2140	119740	579350

2013	NA	NA	NA	NA	NA
2014	NA	NA	NA	NA	NA
2015	69620	35010	2220	106850	566660

The area under tea cultivation(in Hectare)

The above table reveals that there is an improvement in the area under tea at the national, regional, and state levels. At the national level, the total area under tea cultivation shows a positive sign. It has increased from 5, 09,806 hectares in 2001 to 5, 66,660 hectares in 2015. At the regional level, the total area under tea cultivation in South India has declined from 1,14,693 hectares in 2001 to 1,06,850 hectares in 2012.

At the state level, the area under tea cultivation has declined both in Tamil Nadu and Kerala and increased marginally in Karnataka. It has decreased from 75,625 hectares in 2001 to 69,620 hectares in 2015 in Tamil Nadu, from 36940 hectares to 35010 hectares in Kerala, and from 2128 hectares to 2220 hectares in Karnataka.

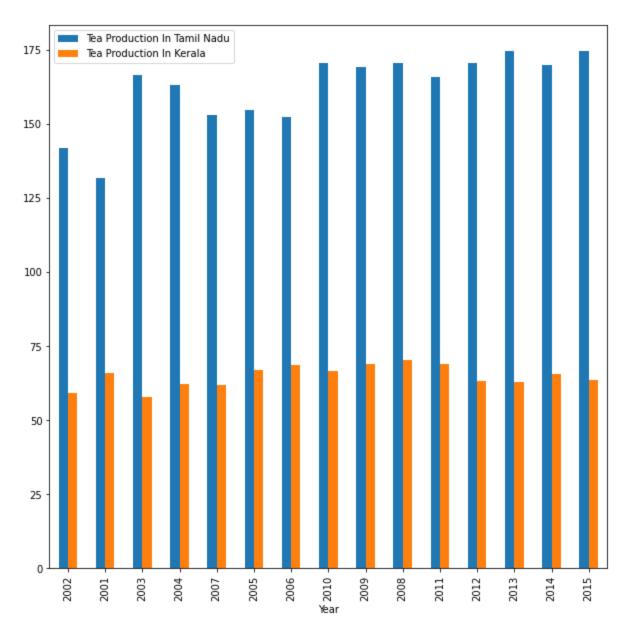
It is clear that among the tea-producing states in South India, the area under tea cultivation has fallen at a higher rate (7.94%) in Tamil Nadu. This is because cultivators who are unable to bear the loss and are not fetching good prices for the products are selling their lands for the construction industry. This has not only reduced the area under tea cultivation but also the production and productivity of the factors.

Tea Production

Year	Tea Production In Tamil Nadu	Tea Production In Kerala	Tea Production In Karnataka	Tea Production In South India	Tea Production In India
2001	131.83	65.85	5.44	203.12	853.7
2002	141.84	59.18	5.71	206.73	838.5
2003	166.57	58.01	5.27	229.85	878.1
2004	163.02	62.15	5.62	230.78	893
2005	154.6	67.03	5.38	227.01	946
2006	152.27	68.76	5.26	226.29	955.9

944.7	220	5.03	61.83	153.13	2007
980	246.9	6.08	70.29	170.53	2008
979	244.13	5.81	68.96	169.36	2009
966.4	243.37	5.9	66.75	170.72	2010
988.3	240.9	5.43	68.88	165.89	2011
1126.3	239.4	5.72	63.1	170.56	2012
1200.41	241.8	5.59	62.84	174.46	2013
1207.31	242.11	6.74	65.58	169.79	2014
1208.78	243.71	5.52	63.48	174.71	2015

Tea production (in M.kgs.)



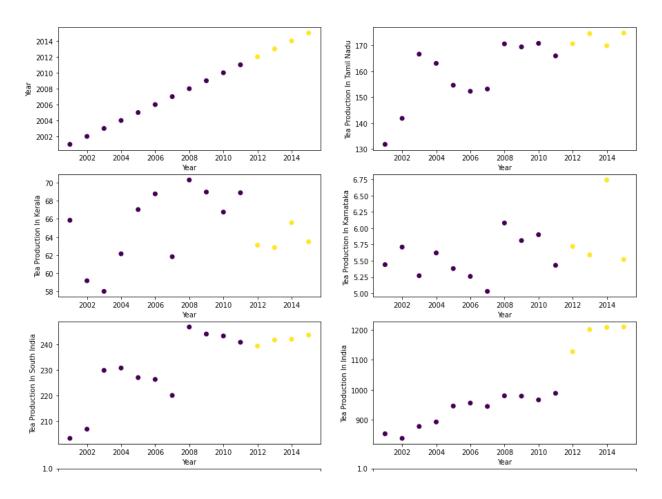
Tea production in Tamil Nadu and Kerala

The production of tea at different levels. At the national level, India has progressed in the production of tea as the second leading producer of tea in the world tea market. The total production of tea was 853.7 million kgs. in 2001 and it has increased to 1208.66 million kgs, in 2015. At the regional level, the contribution of South India to the national tea production has improved. In 2001, the total production was 203.12 million kgs. and it increased to 227.57million kgs. in 2015.

Amongst the tea-producing area states in South India, the share of Tamil Nadu is impressive when compared to the share of Kerala and Karnataka. In the year 2001, the

total tea production of Tamil Nadu was 131.83 million kgs. and it has increased to 163.09 million kgs. in 2015. The contribution of Kerala was 65.85 million kgs in 2001 and it has declined to 57.97 million kgs. in 2015 which shows negative progress by 11.97 percent.

The share of Karnataka has marginally improved. In 2001, the total production of tea was 5.44 million kgs and it increased to 6.51million kgs in 2015. The The area producing the Indian share of Tamilnadu in South Indian tea is impressive because of the large area under tea cultivation and prevailing suitable weather conditions.



Result After Cluster

Results

- Tamil Nadu is the leading producer of tea both at the regional level (South India) and at the national level (India). It contributes 71.68 percent and 14.45 percent to the total tea production of South India and India respectively. The tea production in Tamilnadu has increased by 23.71 percent between 2001 and 2015 which is higher than Kerala's (11.97%) and Karnataka's (19.67%) tea production during the same year.
- It is found that the area under tea cultivation has decreased by 7.94 percent in Tamilnadu, 5.22 percent in Kerala and increased by 4.32 percent in Karnataka between 2001 and 2015. Though the proportion of the area under tea cultivation has fallen in Tamil Nadu over the years, it is one of the leading states in total area under tea cultivation. Its share at the South Indian level is 65.16 percent and 12.29 percent at the national level.

References

https://www.statista.com/statistics/624439/export-value-of-tea-by-country-india/

https://www.ibef.org/exports/indian-tea-industry.aspx

https://www.statista.com/statistics/623655/tea-and-coffee-export-values-india/

https://www.researchgate.net/publication/343879180_PERFORMANCE_OF_TEA_INDUST RIES IN SOUTH INDIA -A COMPARATIVE ANALYSIS