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ORIGINAL ARTICLE

AN EMPIRICAL ANALYSIS OF TEA PRODUCTION AND PRICE IN SOUTH INDIA

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Abstract:

The ancient Chinese society first encountered the tea plants,the British introduced tea to India, in order to compete with the Chinese monopoly on tea. India is the world's largest tea drinking nation and the second largest producer of tea, Indian tea production during the year 2011 was 988.3 M.Kgs compared to 966.4 M.Kgs in 2010, an increase of 21.9 M.Kgs. In 2011, India contributes the share of 23.4 percent in the world tea production. Time Series Analysis is used to compute the tea production and price. The domestic tea production during 2010 was lower by 12.6 M.Kgs and was placed at 966.4 M.Kgs. The south India production was estimated at 243.4 M.Kgs and the price of the year was Rs. 76.69 per Kgs.

KEYWORDS:

Tea Production, Price, Fluctuation, Time Series Analysis.

1. INTRODUCTION OF TEA

Tea contains catechins, type of antioxidant, in a freshly picked tea leaf. In one popular Chinese legendShennong, the legendary Emperor of China, inventor of agriculture and Chinese medicine, was drinking a bowl of boiling water, sometime around 2737 BC. The wind blew and a few leaves from a nearby tree fell into his water and began to change its colour.The ever inquisitive and curious monarch took a sip of the brew and was pleasantly surprised by its flavour and its restorative properties.In the 1880's, America came to the forefront as the biggest importer of tea due to faster clipper ships and the ability to pay its debts in gold.Assam tea, Darjeeling tea, Nilgiris tea cultivation flourished in India under the British, today China and India are the largest producers of tea in the world.Tea plants are native to East and South Asia and probably originated around the meeting points of the lands of northeast India, north Burma and southwest China. Tea was first introduced to Portuguese priests and merchants in China during 16th century. Nowadays tea is grown on tea estates and 70 percent of the tea we drink is grown in Sri Lanka, India, Indonesia, Kenya, Argentina and China.

2. SIGNIFICANCE OF TEA

Tea is an aromatic beverage commonly prepared by pouring hot or boiling water over cured leaves of the tea plant. Tea is the most popular manufactured drink in the world in terms of consumption. Switzerland is considered as the motherland of bottled iced tea. The plucking of the two leaves and a bud involves a number of processed to produce the black tea. Tea has promoted for having a variety of positive health benefit. Teas can be generally being divided into categories based on how they are processed. They

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are at least six different types of tea white, yellow, green, oolong (or wulong), black (called red tea in China), and post-fermented tea (or black tea for the Chinese) of which the most commonly found on the market are white, green, oolong and black.

3. TYPES OF TEA

3.1 Black Tea

Black tea manufacturing is normally carried out in two ways, CTC and Orthodox. CTC refers to the crush, tear and curl process where there is a certain amount of moisture loss. Then the withered leaves are passed through the two rollers rotating in opposite direction. Here the leaves are crushed, torn and curled. In orthodox type manufacture, the withered leaves are rolled on specially designed orthodox rollers which twist and crush the leaves thereby rupturing the cells.

3.2 Green Tea

Green tea is mainly manufactured by two methods namely steaming and panning. Green tea differs from black tea in so much oxidation is not allowed to occur. After withering process the leaf enzyme is destroyed by heating with either steam or dry heat (panning).

3.3 Oolong Tea

Oolong tea is semi oxidised tea. The plucked leaves are initially withered in the sun for an hour. Then they are withered again indoors at room temperature.

3.4 Silvertips Tea

Silvertips are generally produced by plucking only buds and drying in natural sunlight. This allows the tips retain their covering of velvety silver colour. The buds are allowed to dry till they attain the silvery colour.

3.5 Yellow Tea

This tea is processed in a similar manner to green tea, but instead of immediate drying after fixation, it is stacked, covered and gently heated in a humid environment. This initiates oxidation in the chlorophyll of the leaves through non-enzymatic and non-microbial means, which results in a yellowish or greenish-yellow colour.

4. OBJECTIVES

The important objective is to analyses the tea production and price in South India.

5. PROBLEMS OF THE STUDY

The study is engaged on the problem of the fluctuation in tea production and price of South India.

6. METHODOLOGY

6.1 Collection of Data

Secondary data was collected from tea statistics to analyses the tea production and price in South India.

6.2 Time Series Analysis

A time series is the data on any variable recorded over a constant time interval. The period of data recording may be an hour, a day, a week, a month or a year, depending on the type of event the data refer. Thus, a time series consists of four components. a) Secular variations/secular trend b) Cyclical variations c) Seasonal variations and d) Irregular variations.

7. LEAST SQUARE METHOD

The estimation of the straight line trend values by least square method requires determining a straight line equation is Tt = a + bX which consists of obtaining the values of a and b.

South Indian tea production, gives an equation of a straight line is Y = a + bX ; When X = 0, Value of a = 218.82; Value of b = 3.91
Therefore, the trend line is Y = 218.82 + 3.91 X
To find out the trend values of Y from different values of X, for the year 1996 the value of X = -7
While substituting the value of X in the above equation we get the following results.
When X = -7; Y= 218.82 + (-7 x 3.91) = 191.45
Correspondingly, other values are calculated. We get the computed values for the year 1996 to 2010 by substituting the value of X; from these computed values we can get a straight trend as given in the table 2.

South Indian tea price, gives an equation of a straight line is Y = a + bX; When X = 0, Value of a = 53.62; Value of b = 1.03
Therefore, the trend line is Y = 53.62 + 1.03 X
To find out the trend values of Y from different values of X, for the year 1996 the value of X = -7
While substituting the value of X in the above equation we get the following results.
When X = -7; Y= 53.62 + (-7 x 1.03) = 46.41
Correspondingly, other values are calculated. We get the computed values for the year 1996 to 2010 by substituting the value of X; from these computed values we can get a straight trend as given in the table 2.

8. FINDINGS OF THE STUDY

8.1 Tea production

World tea production during the year 2011 was 4217.1 M.Kgs compared to 4162.5 M.Kgs in 2010, an increase of 54.6 M.Kgs. Indian tea productions during the year 2011 was 988.3 M.Kgs compared to 966.4 M.Kgs in 2010, an increase of 21.9 M.Kgs and the domestic tea production in Tamilnadu, Kerala and Karnataka was 167.2 M.Kgs, 68.4 M.Kgs and 5.3 M.Kgs.

8.2 Tea Price

In the year 1996, South India tea auction price at Cochin was Rs 44.42 Coimbatore tea price was Rs 41.30 and Coonoor tea price was Rs 38.40; in the year 2010, tea price at Cochin was Rs 77.45, Coimbatore tea price was Rs 63.49 and Coonoor tea price was Rs 61.11, in the year 2009 tea price was Rs.81.03 per Kgs recorded as the highest price in the past fifteen years.

9. SUGGESTION AND MEASURES

Recentequipment should be upgraded to increase the tea production and to get a fair price for tea.
Government or tea organization must give appropriate information to the growers and manufacture to increase tea production.
Reduction in tariff for tea and financial assistances bring the variation in tea production and price level.
Factories should be maintained properly and tea manufacturing to be in hygienic process
Regular maintenance of tea estates by using fertilizer, pesticide and organic manure bring angrowth in tea production.
Typical weather brings the change in tea production, so manufacture has to sustain the tea production by adopting various precaution measures.
Tea board of India must have a regular inspection to the factories, to produce good quality of tea.

10. CONCLUSION

In India tea production and tea price varies according to the region and depends on the natural climate.Thefluctuations in tea production, quality and exports or imports influence the tea price.

In south India we have three auction centres such as Coonoor, Coimbatore and Cochin.Fifteen years, the average tea production in south India 218.8 M.Kgs and the average tea production of Tamilnadu was 148M.Kgs, Kerala 65.1 M.Kgs and Karnataka is 5.5 M.Kgs. The domestic tea production during 2010

was lower by 12.6 M.Kgs and was placed at 966.4 M.Kgs. The south India production was estimated at 243.4 M.Kgs and the price of the year was Rs. 76.69 per Kgs.In 2011, India's share in world tea production is 23.4 percent, Increase in tea production will not bring an economic change in life of the tea labourers, Government should take proper measures to get reasonable price for the small farmers and provide monetary aids to employeesin tea estates, who are below the poverty line. Yet we have to implement various technologies to improve tea production and to regulator the tea price fluctuation.

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11. TEA PRODUCTION AND PRICE IN SOUTH INDIA

Table: 1

Year	Production (M.Kgs)	Price (Rs/Kgs)
1996	182.00	41.41
1997	205.30	59.31
1998	203.40	68.79
1999	202.70	57.10
2000	206.20	44.63
2001	203.10	46.02
2002	206.70	41.62
2003	229.80	40.28
2004	230.80	47.03
2005	227.60	42.69
2006	228.60	50.79
2007	221.70	49.70
2008	246.90	66.27
2009	244.10	81.03
2010	243.40	67.69
Source: Tea Statistics		

12. TREND VALUE OF TEA PRODUCTION AND PRICE

Table: 2

Year	Computed Value of Production	Computed Value of Price
1996	191.45	46.41
1997	195.36	47.44
1998	199.27	48.47
1999	203.18	49.50
2000	207.09	50.53
2001	211.00	51.56
2002	214.91	52.59
2003	218.82	53.62
2004	222.73	54.65
2005	226.64	55.68
2006	230.55	56.71
2007	234.46	57.74
2008	238.37	58.77
2009	242.28	59.80
2010	246.19	60.83

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