

ECONOMICS OF COCONUT PRODUCTS – AN ANALYTICAL STUDY

Introduction

Coconut is an important tree crop with diverse end-uses, grown in many states of India. Coconut palm is the benevolent provider of the basic needs of millions of people across the globe for their livelihood security. Globally it is grown in 93 countries and in 12.29 million hectare, producing 11.04 million MT (copra equivalent). India, Indonesia, the Philippines, Thailand, Sri Lanka are the five major players and contributing 78 per cent of the world area and production. In India, coconut is grown in an area of 1.90 million hectares with Kerala accounting for 7.81 lakh hectares, covering 38 per cent of the net cropped areas of the State.

The major portion of coconut production is from the four South Indian states, viz. Kerala, Karnataka, Tamil Nadu and Andhra Pradesh, which comes to more than 90 per cent of the total production of coconut. The crop has a significant impact on the social and cultural lives of the people in the country. The marketability and the price realization of coconut and coconut products determine the financial security of the people. The price behaviour of coconut and its products has a profound influence on the rural economy of many states, especially Kerala, the land of 'Kera' (coconut tree).

Objectives of the study

1. To study the area, production and productivity of coconut in India with special reference to Kerala.
2. To study the effect of Liberalisation on the prices of coconut products in Kerala.
3. To study the trend in export and import of coconut products during the study period.
4. To forecast the prices of coconut products using Time Series Model.

Hypotheses of the study

1. There is a significant price difference in coconut products during pre and post-Liberalisation periods.
2. Price variations among different market segments in Kerala are not significant.

Scope and coverage of the study

The present study has analyzed the area, production and productivity of coconut in India with special reference to Kerala, In the case of Kerala, all the fourteen districts have been selected for making a detailed study. The study analysed the fluctuations in the prices of coconut products such as such as coconut oil, copra and coconut oil cake in the Alappuzha, Kochi and Kozhikode markets. It also discusses the trend in export and import of coconut products, the issues associated with and the scope for diversification of coconut products and forecast the prices of coconut products.

The study covers a period of 34 years from 1974-75 to 2007-08, dividing it into - pre and post-Liberalisation period covering 17 years, before and after 1990-'91. The scope of the study is limited to only three markets-Kochi, Alappuzha and Kozhikode and three coconut products- coconut oil, copra and coconut oil cake. For forecasting the prices of coconut products such as coconut oil, copra and coconut oil cake, the study is restricted only to the Kochi market.

Data source

The present study has been done mainly with secondary data. Secondary data was mainly collected from Coconut Development Board, Ministry of Agriculture, Government of India, Kera Bhavan, Cochin. Other relevant data were collected from various government reports

like Economic Reviews, Economic Surveys, Data published by the Directorate of Economics and Statistics, Centre for Monitoring Indian Economy, Agricultural Statistics and Various Reports of the Commission on Agricultural Costs and Prices.

Tools of Analysis

The study has used simple statistical techniques like Percentage, Ratio, Average, One-way ANOVA, Co-efficient of Variation and Trend Analysis to present and draw inference from the data produced. To forecast the prices of coconut products a Time Series Model based on Auto Regressive Integrated Moving Average Method (ARIMA) and Holt-Winters Exponential Smoothing Models are used.

Major Findings of the study

It is observed that the trend and rate of growth of the area, production and productivity of coconut become slower in the post-Liberalisation period than pre-Liberalisation period at the all India level. The total area and production of coconut in Kerala was the highest, compared to other Indian States during the pre-Liberalisation period. The analysis of the percentage area of coconut cultivation during the post-Liberalisation period reveals that in Karnataka and Tamil Nadu states the percentage shows an increasing trend. Whereas in Kerala, though the percentage of total area of cultivation is the highest among the states (55.35 per cent in 1991-'92), the growth rate shows a decreasing trend, which decreased to 43.02 per cent in 2007-08.

In the post-Liberalisation period Kerala benefited mainly due to the increase in productivity even if the area under coconut cultivation declined in the post-Liberalisation period. The monopoly of Kerala in coconut production of India is receding.

The area under coconut cultivation in the State during the pre-Liberalisation period is positive for all the districts except for Kollam, Alappuzha, Kottayam and Kannur districts. But during the post-Liberalisation period, all the districts showed a negative growth rate except Idukki, Palakkad, Malappuram, Kozhikode Wayanad and Kasaragod.

The coconut production in Kerala during the pre-Liberalisation period is positive for all the districts except Thiruvananthapuram, Kollam, Pathanamthitta, Alappuzha, Kottayam and Idukki. But during the post-Liberalisation period, all the districts showed a positive growth rate except Pathanamthitta, Ernakulam and Kozhikode. In pre-Liberalisation period, most of the districts showed a negative growth in productivity, whereas in the post-Liberalisation, the productivity is positive for almost all the districts of Kerala, except for a few districts like Idukki, Ernakulam and Kozhikode.

It is revealed that there is no significant difference in the price of coconut products such as copra, coconut oil and coconut oil cake among the three markets – Kochi, Alappuzha and Kozhikode in the pre and post-Liberalisation period. The fluctuation in the prices of coconut products was very severe in the post-Liberalisation period and it adversely affected the price of the coconut products in the three markets in Kerala.

During the pre-Liberalisation period the coconut products are mainly imported by the government agencies according to the market needs on the basis of pre agreement and treaties with selected countries and private ventures have no right to import these products as a result the growth rate in import during these period shows a negative trend as India being a leading producer of these product.

A similar pattern is followed in the case of exports result in a slow growth in this case also. But in the post-Liberalisation period where the open market system was introduced, changes the situation and both the import and export increased. Hence we can conclude that Liberalisation results in healthier market earning

Coconut prices are usually low during April, May and June while they peak in November, December, and January. Lower availability of milling copra for crushing puts oil at its peak price during the months of November, December and January. The foremost price driver of coconut oil price is the upcountry demand at any given point of time.

The price of copra, coconut oil and coconut oil cake in Kochi market is expected to express an upward trend from 2011 to 2015. The study also found that the best model for forecasting the coconut products price is the Holt-Winters exponential smoothing model than the seasonal ARIMA model.

Limitations of the Study

The study 'Economics of Coconut Products – An Analytical Study' has been conducted based on secondary data. All the limitations and drawbacks of a study while using secondary data can be seen in this study also.

The study has selected the period of analysis only from 1974-75 to 2007-08. The impact of global warming and climate changes are other factors which have led to changes especially in production and productivity. This study has not made any attempt to understand their impact on the study.

Only three coconut products such as copra, coconut oil and coconut oil cake have been considered for the purpose of study.

The study is limited to three markets, viz. Kochi, Alappuzha and Kozhikode.

Conclusion

The price of all coconut products including raw coconut is determined by the price of coconut oil which is in turn influenced by the prices of other vegetable oils and the international price of coconut oil. The changes in the consumption pattern of coconut oil may result in huge hike in the price of coconut oil in the domestic and international market. The increase in the price of other edible oils such as soybean oil, palm oil, palm kernel oil and sunflower oil due to increased demand for them and shortage in its supply are likely to continue for the coming years also. Hence, the price of coconut oil may also continue to rise at an increasing rate in the coming future.

In beauty and utility, coconut crop surpasses all other crops. The crop is gaining world wide acceptance not only as a food, beverage and oil seed crop but also as a renewable source of raw material for diversified uses. Coconut industry in the country at present is on a revival path for product diversification and value addition. The coconut has been a growing success since the time it was first discovered and to this day this very diverse plant is showing great potential. “Our thanks to the Divine Providence which made this tree well worthy of the title of the king of vegetable, with its sap, its fruits, its leaves, its stem, its roots and all its parts, to feed, appease, shelter, cure and carry mankind”. Jose ‘Maria de Sa’ Lisbon 1908.