

# Production and Marketing Practices on Tender Coconut Farmers in Tamilnadu

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**ABSTRACT:** To retrieve important images from a dissimilar collection by using visual queries as search arguments are the arduous and substantial open problems. In this paper the writers have mentioned the designs and implementations of a simple yet very effective Content-Based Image Retrieval (CBIR) system. The colors, textures and the shapes features are the vital parts of this system. With the three main consequent searching steps the searching becomes multilevel. Such propounded systems are very unique as they consider one feature at each step and use the results of the previous step as the input for the next coming step in multilevel pattern whereas in the earlier methods all the features are combined at once for the single-level search of an average CBIR system. The propounded method is very simple and comfortable to adopt. The retrieval grade of the propounded method is valued using bi-benchmark datasets for an image classification. The above system of methods shows very good results in terms of amelioration in retrieval qualities, when compared with the literature. In proposed work we get accuracy like between 68.15 % to 94.86% in used different features.

**Key Words:** Image Retrieval, Image Features, Feature Representation, Image Searching, Recall, Precision.

## Introduction

Coconut palm provides food security and livelihood to large size of population in the world particularly in Asia Pacific Countries. Coconut is a source of food, beverage, medicine, natural fiber, fuel, wood and raw materials for units producing a variety of goods. Coconut is interlinked with socio economic life of large number of small and marginal farmers in the peninsular India. It is estimated that about 11 million people in India are dependent on the coconut sector in areas of cultivation, processing and trading activities. With an annual production of around 16,000 million nuts, coconut contribution to nation's GDP is about 16,000 crores rupees.

## Integrated farming and Agro-ecosystems

Coconut farmers in many parts of the world including Asia find it difficult to sustain their families' livelihoods from coconut income. They often face limited landholding, declining productivity and volatile coconut prices, resulting in poverty, food insecurity and a low nutritional status. To address this problem coconut based integrated farming systems are often viewed as a sustainable alternative farming systems particularly on small and marginal lands. The common coconut based Integrated farming observed in the Asian countries are 1) Animal integration (cow, goat, poultry, duck and rabbit, etc 2) Agriculture/Tree crops Integration (multiple species crop, mixed crop sequential, fruit and timber yielding trees etc) and 3) Integration of aquaculture (shrimp farming, fish farming, prawn culture etc). The economic status of farmer does not only define the quantity of food production but also the system that go along with its effective product and bi-product utilization and rising public awareness on the importance of integration and waste utilization.

## Production and Supply of Tender coconuts

The term 'production' so far as the study is concerned, refers to the whole of the tender coconuts that can be harvested by coconut growers at their farms, while the term 'supply' refers to the actual quantity of tender coconuts that are harvested at the farms for sale to re-sellers/ consumers at any given point of time.

In the agricultural marketing system, wholesalers / commission agents occupy a very significant place as their need is all through in the marketing processes viz., Concentration, Equalization and Dispersion. They constitute the secondary market and therefore they are found in all important urban / city centres (taluk / district / regional centre's).

The issues addressed here are: Where are the wholesalers/ commission agents found for tender nuts? What are their significance in marketing of tender coconuts and such other related issues.

## Statement of the problem

Tamil Nadu stands second amongst the coconut growing states in India with respect to the area under cultivation and the production of coconuts. It does also mean that the State deserves its credentials with respect to production of tender coconuts too. Tender coconut, the God given natural soft drink to humanity, is abundantly offered particularly in its natural form in markets. The increased demand coupled with development of marketing channels for tender coconuts has accounted for large-scale supply and sale of tender coconuts in recent years. Tender coconuts witness an increasing demand as well as expanded markets.

Perhaps, we may face shortage in the supply of copra meant for coconut oil production. This is what we aim at for coconut development. Therefore, besides the measures for promotion of off-farm value addition activities on coconuts through product diversification, it is equally very important to promote the marketing of tender coconuts as it can not only facilitate enhancing the livelihood security to farmers, but also lay a strong foundation for the creation of sustainable domestic markets for coconuts in the long run.

In this regard, understanding the marketing of tender coconuts through addressing the following issues .

The issues are:

- Who are the producers of tender coconuts?
- What is the estimated production and supply of tender coconuts?
- Where does the demand for tender coconuts exist?

## Objectives

To assess the production and the supply of tender coconuts by farmers in Tamil Nadu.

1. To study the delivery system and the role of marketing functionaries in serving the markets under entrepreneurship practices.
2. To examine the issues and challenges of production and better marketing of tender coconuts.

**Scope of the study:** The entire system of the tender coconuts economy viz., production, distribution and consumption , Pattern and extent of production including the supply, the existing delivery system, the role of marketing functionaries, consumers purchase behavior etc., are assessed. Problems in production, supply, distribution and segments are disclosed. Thus, it discloses a wide range of ground realities pertaining to the production and the marketing of tender coconuts in Tamil Nadu.

## Methodology

This study is based on descriptive cum Field survey with empirical in nature. Primary data was gathered from the Tender coconut Growers

### Sampling procedure for the selection of coconut farmers

Multi-stage stratified proportionate random sampling procedure was employed for the selection of,

- i. Geographical area and
- ii. Sampling units i.e., coconut farmers

### Stratification of the geographical area of the district

The study presumed that though palm population is widespread throughout the district, the density of it is very high in areas that are far away from the district headquarters and it is very less in areas that are within/near the district headquarters town/city. Therefore, considering the district headquarters town/city as the base, the geographical area of the district selected for the study was stratified into the following three regions

Geographical region I includes coconut gardens located within the urban limits,

Geographical region II refers to coconut gardens located in a geographical area covering 8 – 10 kms away from the urban limit,

Geographical region III includes coconut gardens located far away from the urban limits, say 30-40kms away from the district head quarters town/city.

### Selection of coconut farmers

The study presumed that production of tender coconuts varies among coconut farmers primarily due to differences in their palm population/area under coconut garden. Four categories of coconut growers were found based on land holdings/area under coconut garden viz., marginal, small, medium and big farmers. Similarly, differences in palm population are also found within the geographical regions in the district. Villages with coconut gardens and villages without coconut gardens are found.

**ANALYSIS**  
*Types of retail outlets*

Duration in years	Permanent			Temporary			Grant total (i+ii)
	Number of retail outlets						
	Operating within urban limit	Operating out side the urban limit	Total (i)	Operating within urban limit	Operating out side the urban limit	Total (ii)	
< 5 years <sup>1</sup>	21 (18.42)	10 (11.67)	31 (15.44)	08 (55.56)	07 (33.33)	15 (41.67)	46 (19.38)
5-10 years	42 (36.84)	39 (43.33)	81 (39.70)	06 (44.44)	13 (60.00)	20 (54.17)	101 (41.88)
> 10 years	51 (44.74)	41 (45.00)	92 (44.85)	--	02 (6.67)	01 (4.17)	93 (38.75)
<b>Total</b>	<b>114</b>	<b>90</b>	<b>204</b>	<b>14</b>	<b>22</b>	<b>36</b>	<b>240</b>
<b>Mean years</b>	<b>&gt;10</b>	<b>&lt; 10</b>	<b>&gt; 10</b>	<b>&lt; 5</b>	<b>&lt; 6</b>	<b>&lt; 6</b>	<b>&lt; 10</b>

Figures in brackets are percentages to column total.

As given in table 1, out of 240 retail outlets under study, 204 are operating throughout the year while the other 36 operate only during summer (*from February to June months*). A large number of seasonal retail outlets are found in places outside the urban area, whereas, permanent retail outlets are found in large numbers in urban centres.

This may indicate the existence of stable demand for tender coconuts throughout the year in urban area, whereas emergences of seasonal demand for tender coconuts (*summer Season*) in areas other than urban centres. Majority of the vendors owning temporary retail outlets have taken-up vending business to earn additional income during seasonal days.

Further, with regard to the existence of outlets, it is noticed that majority of permanent retail outlets have a long years of existence (*above 10 years*), whereas, a majority of temporary retail outlets have less than six years of existence (*mean years*). This may also indicate that the demand for tender coconuts (*consumption*) is picking up particularly in areas outside the urban limits only recently.

Thus, it may be stated that there are two types of tender coconut retail outlets in Tamil Nadu viz., permanent existence type and temporary existence type. Permanent existence type retail outlets i.e., operating throughout the year are found more in numbers in urban centers whereas, the temporary existence type retail outlets i.e., operating during a particular season are found more in numbers in places outside the urban centers.

**Seasonal variations in sales**

S. No.	Category Season	Number of tender coconuts sold		
		operating within the urban limit	Operating outside the urban limit	Daily average
1.	<b>During winter (daily average)</b>			
	▪ Minimum	260	150	175
	▪ Maximum	450	350	410
2.	<b>During summer (daily average)</b>			
	▪ Minimum	260	150	185
	▪ Maximum	600	450	520

There is a significant association between Season with sales of Tender coconut at 0.01 per cent level. Chi-square value is 213.532

**Sale of tender coconuts:** It is learnt that the demand for tender coconuts exists throughout the year except during incessant rainy days. As shown in table, the number of tender coconuts sold per retail outlet per day (*mean value*) ranges between 260 and 600 during summer for retail outlets located in urban centres, and it is between 150 and 350 during winter and between 150 and 450 during summer for retail outlets located outside the urban centres.

The above analysis indicates that the minimum sales in terms of nuts, effected in both the seasons seem to be equal / constant; whereas, the maximum sales effected in both the seasons vary.

#### *Sources of procurement of tender coconuts*

S. No.	Sources	Number of retail vendors	
		Frequency (N= 240)	% of 'N'
1.	Coconut growers	32	13.12
2.	Traders	72	30.00
3.	Commission agents	56	23.13
4.	More than one sources	81	33.75
Total		240	100

There is a significant association between retail vendors with source of procurement at 0.01 per cent level. Chi-square value is 142.869

**Sources for procurement of tender coconuts:** It is found that the retail vendors have three major sources of coconut growers traders and commission agents for the procurement of tender coconuts for their business. As shown in table shows traders and commission agents (*mandis*) occupy the prominent place in supplying tender coconut retail vendors in urban centres.

**Grading:** The study finds that none of the retail vendors operating in urban centres are permitted to grade tender coconuts at the farmers field. On the contrary, retail vendors avail trade discounts (*5-8 tender coconuts free of cost for sale of every 100 tender coconuts*) besides the price reduction from farmers. Whereas, such discounts are not availed from other sources i.e., traders and commission agents.

#### **Findings & Conclusion**

**Less production:** Coconut palms are not raised with the primary intension of harvesting tender coconuts. Only 12.48 per cent of the yielding coconut palms are used for tender coconut harvest. However, only 3.59 per cent of the coconut palms are regularly used for the harvest of tender coconuts throughout the year and 17.83 per cent of the farmers harvest tender coconuts regularly throughout the year. It is estimated that only 15.14 per cent of the total nuts production was harvested as tender coconuts during the year 2016-17 in Dindigul, Coimbatore, Theni Districts.

**Operational problems:** Although the price of tender coconuts is more rewarding than that of matured coconuts, harvest of tender coconuts is constrained due to the incidental (*operating*) problems like non-availability of labour for harvesting, lack of dependable and stable buyers (*traders etc.*), far-away locations of markets and lack of infrastructures facilitating the logistics for better marketing of tender coconuts.

**Problems in the sale of tender coconuts:** The prime source available for sale of tender coconuts to traders under procurement category is the commission agents/mandis. It is reported that commission agents/mandis do not pay the full price for the stock sold in large scale. It is observed that on an average, one-thirds of the sale price is held pending with wholesale/commission agents for a period of 5–6 months.

**Increased cost of maintenance:** It is reported that retailers find it difficult in maintaining the retail outlets throughout the year due to low business volume compounded by wide fluctuations in the sales turnover. The average net earning per retail outlet is estimated at Rs.465/- per day during summer and it is less than Rs.185/- per day during winter. Majority of retail outlets located in sub-urban and rural area have net earnings below the average figure. Thus, it does not permit the retailers to invest more capital on the establishment of retail outlets.

**Single product offer:** More than 90 per cent of retail outlets are Exclusive Type. i.e., deal on single product item viz., tender coconuts only. They are constrained due to problems related to inventory stock, overhead cost and customer services. However, the retail outlets located in motels / cool drink stalls seem to be Inclusive Type i.e., deal on similar/related products (*single line product mix*) viz., tender coconuts besides other soft drinks. It is found that only 8.75 per cent of retail outlets offer tender coconuts along with similar/related products.

### Conclusion.

**Production enhancement strategy:** The study finds that only 12.48 per cent of the yielding palms are used for tender coconut harvest. Moreover, production of tender coconut is constrained due to poor quality which refers to small size/less water content in tender coconuts. Only 2.16 per cent of the palms are reported to be hybrid variety producing good quality tender coconuts. Statistical test indicates that tender coconut is likely to be harvested from hybrid variety palms and not from indigenous palm varieties. Hence, as a long term strategy the study suggests carving appropriate programmes to increase adoption of hybrid palm varieties by farmers. Financial support for raising coconut gardens including nursery establishment with indigenous varieties may be avoided.

**Distribution channel promotion strategies:** Significance of the indirect channels of distribution in the context of serving wide markets and mass marketing of tender coconut needs no emphasis. The study finds that the indirect channels are very popular and have been operating through networking among several marketing functionaries. These results in two fold problems viz., widening the price spread and increasing the consumers price for tender coconuts particularly in distant markets (*urban centres where the demand for tender coconuts is high*)

### Market Promotion Strategies

Since primary groups play a major role in the buying decisions of consumers, market promotion communication addressing the primary groups need to be developed and executed. To enable for wide publicity and propaganda, buzz word/ catch word may be popularized.

The study finds that tender coconuts suffer from marketing myopia due to lack of /absence of market promotional efforts. The Board may invest on market promotion through advertisement, publicity and propaganda.

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