

RESEARCH PAPER

# Marketing management of tamarind in Karnataka

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## ABSTRACT

Tamarind (*Tamarindus indica* L.) grows especially in parts of sub-continent and it is a significant indigenous fruit tree. The origin of tamarind is from Eastern Africa in the place of Madagascar. But now it is grown in all over the world and extensively cultivated in India. For collection of primary data, the respondents were selected by random sampling method. The present paper reveals that the study area of Kolar, Bengaluru, Tumkur and chikkaballapura were growing districts of tamarind in Karnataka. In Karnataka four processing units were selected and 25 farmers, 10 traders, 10 wholesalers, and 10 retailers were selected in each district. The producer's share of consumer rupee was found highest for channel -I at 81.49 per cent, followed by 71.02 and 68.00 per cent in channel -II and III, respectively. The price spread was for 2263.94 in channel-III followed by 1,915.62 in channel-II and 1,067.19 in channel -III, respectively. The wholesaler incurred marketing cost was due to processing, packaging and grading at Rs. 331.84 for channel -II followed by Rs. 330.09 in channel -III. The very low price of tamarind, lack of transport, storage and finance facilities followed by high level of exploitation by traders often discourages the gatherers interest for tamarind marketing. The price spread of tamarind was observed as high as 1,067 per quintal along with producer share in consumer's rupee was highest (81 %) in channel-I compared to all other three channels. Hence channel-I needs to be recommended and adopted for increased the increased profits in tamarind production. Tamarind growers expressed 82 per cent in the major problem of price fluctuation particularly ending with low price when compared with other problems like storage and commission. Hence government needs to initiate measures to protect the farmers from price fluctuations by way of giving minimum support price or taking measures for stabilized price.

**KEY WORDS :** Tamarind, Tamarind dried, Tamarind fresh, Tamarind seed, Marketing problems, Marketing channels, Processing unit problems

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Tamarind (*Tamarindus indica* L.) grows especially in parts of sub-continent and it is a significant indigenous fruit tree. The tamarind fruit is a seed vessel like fruit which consist of edible mush used in different methods of cooking in over the entire world. The tamarind fruit was well known to the bygone Egyptians and Greeks during 4<sup>th</sup> century B.C. The origin of tamarind is from Eastern Africa in the place of Madagascar. But now it is grown in all over the world

and extensively cultivated in India. It is widely distributed throughout the tropical belt from Africa to South Asia, Northern Australia. In the 16<sup>th</sup> century tamarind was introduced to Mexico and lesser degree to South America by Spanish and Portuguese colonists to the degree that it became a staple ingredient in the region's cuisine. India is the largest tamarind producer, accounting for about half of the global tamarind production. The tamarind primary processing and value addition activities have potential of improving livelihood. Its collective marketing and little primary processing can significantly improve family income. The tamarind was clearly the choice of community in view of availability in large quantity in cluster. The trade of tamarind after collection is entirely in the hands of middlemen at present. Currently, large quantity of tamarind is collected by community and immediately sold to middlemen as raw tamarind pods. In this process entire profit goes to middlemen. In view of this, it is decided to start primary processing and trade of tamarind through groups which excludes middlemen. The raw pods were distributed by group to any farm family who were interested in dehulling and deseeding of tamarind. They were paid wages for tamarind dried processing. This helped in creating employment at village itself for a period of about 4 months. The processed material is returned back to group who pack it in 15 kg bags for marketing. Tamarind is an important ingredient in cosmetic and fragrance industry. The upsurge in consumer demand for organic food and Ayurveda medicines is expected to propel the growth of global tamarind market. But, less than ten per cent of the tamarind produced is processed and tamarind pulp is the main export product both in terms of volume and value. Lack of customer awareness, insufficient demand for processing products and lack of equipment's to perform. This paper attempts to study about the type of marketing systems existing at present in India and suggestions to realize higher value for the produce.

The tamarind production is relatively greater size in India. As stated by the spice board of India, the tamarind area was 74.20 (000' ha), production was 309.44 (000' MT) and the productivity was 4.0 (MT/ha) in 2017-18. Kolar, Tumkur, Bengaluru, Chikkaballapura and Mysore are the major producing districts in Karnataka. In Andhra Pradesh and Karnataka there are several tamarind crop growers available, because these states having more dry land area and the land is more suitable for tamarind tree,

but soil type is different in Andhra Pradesh but in case of Karnataka states soil fertility more suitable and the quality of fruits are good. About 258.70 (000' MT) to 272.85 (000' MT) of tamarind is processed and lot of labor is engaged in this processing in India. Even though, traditional processing is widespread, its commercial uses are unknown and underdeveloped.

Tamarind crop is a minor crop and it is notable product. Major markets available for tamarind are Andhra Pradesh, Karnataka, Tamil Nadu and Maharashtra. Tamarind is largely available in unorganized markets and branded segment in the market constitutes about 15 per cent. The branded market is dominated by players such as Everest, Catch, Badshaah, Ramdev, MTR etc. Recently, Tata Chemicals has launched Tata Sampann Spice with the name of spices brand. The tamarind dried or pulp has good export potential and also having good scope for tamarind based products in the market. Tamarind is exporting internationally in the form of tamarind fresh, tamarind dried, tamarind kernel powder and also processed products and similar findings has been in Velavan, C., 2004. The tamarind dried is a cheapest multi-vitamin and multi-mineral diets for the poor people. During the months of March to May the ripened tamarind fruit is harvested, since harvesting of tamarind fruit is labour intensive, poor people can earn by involving in harvesting activity. They also earn money at the time of lean season during plucking fruit from trees as well as de-seeding of tamarind fruit. Processing of 1kg of tamarind fresh will give 55 per cent pulp, 34 per cent seed, 6 per cent shell and 5 per cent fibre. The seed is major by-product of tamarind and it contains about (70 %) kernel and (30 %) of hard brown testa. In general processing units procure tamarind from pre-harvest contractors in India. The procurement and processing will start from March. Tamarind fresh is processed to tamarind dried, since in India tamarind dried is used commonly for preparation of dishes. So, demand is more for tamarind dried when compare of other tamarind processing products except by-product of tamarind kernel powder. Village level traders and wholesalers procure tamarind fresh from farmers in village itself then fruit shell and seed is removed after sundry. Later tamarind will be sieved, weighed and then few processing units transport to other states and districts. These people make processed tamarind dried in to different shapes like chapathi or round shape and square

shape. These findings were explained similarly in Rao *et al.* (2015). Another factor which increases price of the tamarind dried is higher length and breadth the fruit, higher the price of the product. This kind of cleanly processed tamarind dried products are available in organized retail outlets. The specific objective of investigation is to study the marketing management of tamarind.

## METHODOLOGY

To fulfill the specific objectives of Karnataka was selected for the study. The state is having dry land area and having highest production of tamarind. In Karnataka, four districts namely Bengaluru, Kolar, Tumkur and Chikkabalapura were selected. From each district one processing unit was selected. For collection of primary data, the respondents were selected by random sampling method. In Karnataka four processing units were selected and 25 farmers, 10 traders, 10 wholesalers, 10 retailers were selected in each district. Thus the total sample size is 224. To evaluate present objective, marketing management of tamarind in Karnataka was selected from study area. However, for understanding the marketing management of tamarind and to arrive at valid conclusion.

## ANALYSIS AND DISCUSSION

The findings of the present study as well as relevant discussion have been summarized under the following heads :

### Marketing management of tamarind in the study area:

Table 1 discussed that about marketing management of tamarind, among 25 famers in Bengaluru mainly observed that 13 members were going for pre-harvest sale with the share of (52.00 %), According to time of sale in Chikkaballapura, farmers has been sold tamarind in village itself contributing majorly 12 farmers within a month of harvest (48.00 %), Corresponding the share of village sale in Kolar 3 farmers, within a month of harvest 15 (60.00 %). The share is the case of pre-harvest sale farmers with (44.00 %), Corresponding to time of sales out of four districts, Bengaluru showing highest number of farmers, 15 farmers with the contribution of (60 %) showing the time of sold of their commodity at pre-harvest sale. Tamarind sold most of the farmers in village itself and it has been varied based on district. That tamarind was sold to village trader with contribution of 32 per cent, in Bengaluru. In Chikkaballapura, the wholesalers were 40 per cent, the tamarind seed was sold to wholesalers with 36 per cent in Kolar. Tamarind has been transport through tractors with the share of 60

**Table 1 : Marketing management of tamarind in the study area**

Sr. No.	Particulars	Bengaluru (n=25)		Chikkaballapur (n=25)		Kolar (n=25)		Tumkur (n=25)	
			Per cent		Per cent		Per cent		Per cent
1.	<b>Time of sale</b>								
	Pre-harvest sale	13	52.00	6	24.00	3	12.00	11	44.00
	Within a month of harvest	7	28.00	12	48.00	15	60.00	8	32.00
	After 2-3 months	1	4.00	4	16.00	5	20.00	2	8.00
	After 3 months	4	16.00	3	12.00	2	8.00	4	16.00
2.	<b>Place of sale</b>								
	Village itself	6	24.00	10	40.00	5	20.00	7	28.00
	Regulated markets	11	44.00	5	20.00	13	52.00	14	56.00
	Personal selling	8	32.00	10	40.00	7	28.00	4	16.00
3.	<b>To whom sold</b>								
	Village Trader	5	20.00	5	20.00	5	20.00	5	20.00
	Commission agent cum trader	7	28.00	3	12.00	4	16.00	6	24.00
	Wholesalers	5	20.00	10	40.00	7	28.00	5	20.00
	Retailer	8	32.00	7	28.00	9	36.00	9	36.00
4.	<b>Means of transport</b>								
	Tractor	15	60.00	12	48.00	16	64.00	14	56.00
	Mini truck	10	40.00	7	28.00	5	20.00	9	36.00
	Bullock cart	0	0.00	6	24.00	4	16.00	2	8.00

per cent and mini truck was shared with 40 per cent in Bengaluru. In Chikkaballapura respondents were used to transport the commodity through tractors. In Kolar, transporting through tractors majorly with 64 per cent, mini tractors 20 per cent and through bullock cards 16 per cent. In Tumkur transportation was mainly through tractors with the share of 56 per cent, mini truck share was 36 per cent and through bullock card with the share of 8 per cent, respectively. These all shares were worked out from 100 respondents of four districts Chogou *et al.* (2019).

### Marketing cost incurred by farmer to processing unit in channel - I :

As indicated in results from Table 2, the following three channels of marketing of tamarind are in four the districts. Tamarind and its products produced in four districts are marketed in the study area, and the produce passes through the intermediaries. So, marketing costs were computed from one quintal of tamarind. The producers sell their produce directly to the village level cum retailers and finally the produce reaches the processing unit in channel-I, whereas in channel-II, the producers sell their produce to wholesaler through commission agent and then it moves to processing unit to prepare tamarind products.

The study revealed that grading (Including weighing), packaging cost, storage charges, loading and unloading, transportation charges were the major functions involved in the process of marketing of tamarind were transported by trucks/lorries. Maximum quantity of tamarind has been going to tamarind dried processing unit through village level trader cum retailer in channel-I. In channel-I, the village trader played a role of retailer. From Table 2 broad observing of channel -I farmers to processing unit through

village level trader cum retailer; the highest total marketing cost was incurred by processing unit. It means the highest cost was gaining from cold storages followed by miscellaneous, grading (Including weighing) and transportation, respectively. Then, because of involving of these costs, the total marketing cost of processing unit was high followed by village level trader cum retailers, because village level trader cum retailers also incurred all above mentioned cost. So, it shows that the highest marketing cost was incurred by purchasing of tamarind from tamarind growers or farmers. After purchasing the commodity has been sold to processing unit, Because of this more cost was incurred through transportation 46.34 contribution of 33.60 per cent followed by miscellaneous, these were due to long distance and to survive themselves outside while transportation of commodity more miscellaneous has been faced. For farmers also same transportation cost incurred more, because from trees were somewhat far from village level trader, so, to transport logistics cost was high. The similar findings were identified by Mathi and Pandey (2008).

### Marketing cost incurred by wholesaler to processing unit in channel - II:

The Table 3 described that the farmers sell their produce directly to the processing through wholesaler in channel-II. The marketing cost was more in case of wholesaler 331.84 followed by processing unit and farmers. In this channel-II while commodity moving from farmer to processing unit in middle wholesaler incurred the marketing cost because that out of wholesaler incurred cost, highest cost was gained through commission with the contribution of 29 per cent followed by shop rent Rs. 67 contributed 20.19 per cent, respectively. In channel-II commission charges were more. So, through this

Table 2 : Marketing cost incurred by farmer to processing unit in channel – I							(Rs./q)	
Sr. No.	Particulars	Farmer	Percentage	VLT cum retailer	Percentage	Processing unit	Percentage	
1.	Grading (Including weighing)	11.40	10.09	9.10	6.60	28.50	17.43	
2.	Packaging cost	11.40	10.09	11.60	8.41	12.02	7.35	
3.	Storage charges	14.75	13.06	15.14	10.98	47.90	29.29	
4.	Loading and unloading	10.68	9.46	16.52	11.98	8.50	5.20	
5.	Transportation charges	40.12	35.52	46.34	33.60	26.10	15.96	
6.	Commission	-	-	-	-	-	-	
7.	Shop rent	-	-	10.00	7.25	-	-	
8.	Miscellaneous	24.60	21.78	29.20	21.17	40.50	24.77	
	Total	112.95	100.00	137.9	100.00	163.52	100.00	

Note: VLT - Village level trader

channel-II processing unit incurred highest cost than channel-I because in channel-I no commission charges compare to channel-II. The similar findings were identified by Sarode 2009.

### Marketing cost incurred by different intermediaries in channel - III:

The Table 4 results revealed by analyzing of one quintal of tamarind, in channel-III, that the farmers can't sell their produce directly to the retailers. Because retailers have been always sell the tamarind to the customers in the form of small quantity. The marketing cost was more in case of wholesaler 330.09 followed by retailer and farmers. In this channel-III while commodity moving from farmer to retailer, it was crossed through wholesaler incurred the marketing cost. The total wholesaler incurred marketing cost was high; because of high commission charge has been paid to commission agent. It was also observed that the farmer, wholesaler, processing and retailer incurred the almost very slight variation of costs in channel-II and channel-III. The similar findings were identified by Joshi (2010).

### Marketing cost, margin and price spread of tamarind in different channels in the study area:

Total marketing cost incurred in different channels in the study area was observed in the Table 5. The Table reveals that high marketing cost was incurred in channel-II. Because, in channel-II sold their produce through commission agents. So, commission agents received more and also incurred high marketing cost where storage charges were more. The purchase price of consumer was more in channel-III in the study area. Because, in channel-III pre harvester contractor or traders sold their produce to distant retailers and the number of market intermediaries present were more in this channel. The results revealed from the Table that, in channel-III the farmers sold their produce to the retailers at the farm gate itself. Then the farmer received gross price was Rs. 4,810 per quintal and there was no cost incurred by farmers. Because farmers has been sold the trees to pre-harvest trader or contractors.

The producers share in consumer's rupee was found to be more in channel-I of marketing which is a local marketing channel and it accounted for around 81.49

Sr. No.	Particulars	Farmer	Percentage	Wholesaler	Percentage	Processing unit	Percentage
1.	Grading (Including weighing)	11.80	10.32	10.80	3.25	30.10	16.78
2.	Packaging cost	11.00	9.62	12.00	3.62	12.50	6.97
3.	Storage charges	14.75	12.90	50.00	15.07	50.00	27.87
4.	Loading and unloading	10.68	9.34	18.00	5.42	10.00	5.57
5.	Transportation charges	41.50	36.30	42.00	12.66	30.00	16.72
6.	Commission	-	-	96.24	29.00	-	-
7.	Shop rent	-	-	67.00	20.19	-	-
8.	Miscellaneous	24.60	21.52	35.80	10.79	46.82	26.10
	Total	114.33	100	331.84	100	179.42	100

Sr. No.	Particulars	Village level trader	Percentage	Wholesaler	Percentage	Retailer	Percentage
1.	Grading (Including weighing)	9.50	7.19	10.80	3.27	3.70	2.32
2.	Packaging cost	10.70	8.10	12.00	3.64	12.40	7.78
3.	Storage charges	15.24	11.54	50.00	15.15	-	-
4.	Loading and unloading	16.10	12.19	17.75	5.38	20.00	12.55
5.	Transportation charges	40.50	30.67	42.50	12.88	45.20	28.37
6.	Commission	-	0.00	96.24	29.16	-	-
7.	Shop rent	10.00	7.57	65.00	19.69	58.00	36.41
8.	Miscellaneous	30.00	22.72	35.80	10.85	20.00	12.55
	Total	132.04	100.00	330.09	100.00	159.30	100.00

per cent in the study area and channel-II computed for 71.02 per cent whereas, in channel-III, it accounted for 68 per cent. The above discussion indicate that the superiority of channel-I over channel-II and channel-III in terms of producer share in consumer rupee and hence, the hypothesis that, fewer the intermediaries efficient would be the channel, is established in marketing of tamarind also. Price spread was more in channel-III in the study area as the number of market intermediaries present were more and this channel operated during the surfeit period in the market and hence farmers received

lower price per quintal. The price spread in channel-III of the study area was Rs. 2,263.94 per quintal of tamarind. Whereas, the price spread in channel-I was Rs. 1,067.19 per quintal and channel-II spread with the price of Rs. 1,915.62 per quintal in the study area of tamarind. The purchase price of consumer in channel-I and channel-II was Rs. 5,764.24 per quintal and Rs. 6,611.29 per quintal in the study area, respectively. Hence, channel-I was considered to be the best marketing channel as the price spread was less in the study area. The results are in conformity with a similar study

Table 5 : Price spread in marketing of tamarind dried				(Rs./q)
Sr. No.	Particulars	Channel -I	Channel -II	Channel -III
1.	Gross price received by producer	4810	4810	4810
2.	Cost incurred by producer	112.95	114.33	-
3.	Net price of producer	4697.05	4695.67	4810
4.	Purchase price of trader	4697.05	-	4810
5.	Cost incurred by trader	137.90	-	132.04
6.	Profit margin of trader	241.75	-	247.10
7.	Selling price of trader	5076.70	-	5189.14
8.	Purchase price of wholesaler	-	4810.00	5189.14
9.	Cost incurred by wholesaler	-	331.84	330.09
10.	Profit margin of wholesaler	-	257.09	275.96
11.	Selling price of wholesaler	-	5398.93	5795.19
12.	Purchase price of retailer	-	5398.93	5795.19
13.	Cost incurred by retailer	-	-	159.30
14.	Profit margin of retailer	-	431.91	476.36
15.	Purchase price of processing	5076.70	5830.85	6430.85
16.	Cost incurred by processing	163.52	179.42	-
17.	Profit margin of processing	524.02	601.03	643.09
18.	Purchase price of consumer	5764.24	6611.29	7073.94
19.	Price spread	1067.19	1915.62	2263.94
20.	Producer share in consumer rupee	81.49	71.02	68.00

Table 6 : Constraints faced by intermediaries in tamarind marketing			
Sr. No.	Particulars	Average	Garrett ranking
1.	Lack of labour	70.33	I
2.	Low quality/grade/size of produce	68.98	II
3.	Market price fluctuations	53.05	III
4.	Low margin and high operational cost	49.38	IV
5.	Non-availability of specified markets	49.13	V
6.	Lack of cold storage facilities	42.63	VI
7.	Lack of market information	38.40	VII
8.	Delay in payment	36.53	IX
9.	Lack of transportation facilities	37.15	VIII

**Table 7 : Constraints faced by processing units**

Sr. No.	Particulars	Average	Garrett ranking
1.	Lack of customer awareness	91.00	I
2.	Insufficient demand for processed products	79.00	II
3.	Lack of equipment's to perform	77.25	III
4.	Lack of labour availability	63.00	IV
5.	Difficulty in procurement state of alter modern machinery	52.00	V
6.	Use of old machinery	48.00	VI
7.	High marketing costs	39.00	VII
8.	Low profit margin	23.50	VIII
9.	Very high level of competition	4.50	IX
10.	High commission	9.00	X

conducted by Kolar *et al.* (2012) on marketing efficiency in arecanut processing units.

### Marketing problems:

The results of the random sample presented in Table 6 are discussed here. An informal discussion with the sample farmers revealed that with the marketing of tamarind had problems. The random sampling method was conducted on constraints of marketing was lack of labour, market price fluctuations and low quality/grade/size of produce having major problem. Intermediaries facing mainly lack of labour it is because wages were less and work was more so, labour are shifting to other works. Tamarind was low quality /grade/size because it depends on soil fertility. Lack of transportation facilities was the last problem because already intermediaries were located in semi urban and general they has been maintain own vehicles. These were sample farmers who sold their produce to the wholesaler or retailer to know the problems in marketing of tamarind. The similar findings were declared in marketing problems encountered by coconut growers in Thanjavur district of Tamil Nadu. The similar findings were observed by Anavrat (2017).

### Processing problems:

Table 7 explains problems on processing units was lack of customer awareness (91 %), insufficient demand for processing products (79.00 %) and lack of equipment's to perform (77.25 %). The major problem was lack of customer awareness because tamarind processing units were less and mainly in India tamarind has consume directly as a tamarind dried in culinary purpose. So, like tamarind concentration, tamarind sauce,

and tamarind juice etc. these products have no awareness in our India but more demand and good awareness in other countries. Because of direct consuming as tamarind dried demand for various products of tamarind were less and lack of equipment because in marketing there is no required equipment to remove shell, fibre and seed in the market. To come out this problem, technology should develop required equipment's for tamarind process. Due to lack of required technology developed equipment, the process units were using old machineries. The similar findings were recognized by Olaosebikan *et al.* (2019).

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