

A Study on the Marketing Channels of Natural Rubber with Special Reference to Pathanamthitta District in Kerala

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Abstract: *The growth of rubber market in India is closely related to the development rubber plantation as well as rubber goods manufacturing industry. Due to the growth of plantation and industry rubber occupies an important position in the national economy with over 5000 manufacturing units (Both Tyre and Non-Tyre Manufacturers) producing a wide range of consumer and industrial products. Marketing of natural rubber is mainly through large growers, dealers and institutional agencies. Marketing functions add value to the produce to be sold but they also involve costs which have ultimate impact on the profitability of the setters. The producer has to transport the goods to the primary wholesaler marketing is case of channel II and III who is not always found near the place of production. The rejection loss in case of channel I, II and III is 24.15, 30.65 and 37.09 per cent respectively. The rejection loss in channel III is more. The cost involved in moving the rubber from point of production of the point of consumption known otherwise as the cost of performing marketing functions. The study of price spread in natural rubber marketing is an important aspect, as it reflects the shares of the producer and different intermediaries. The price spread varies depending on the number of intermediaries involved in the marketing channel. The producers share in the maximum (87.05 per cent) in channel III followed by Channel II (87.99 per cent). The producers price was the maximum in channel III with Rs.11,429 per quintal of natural rubber followed by Rs.11,350 per quintal in channel II. The price spread in channel I was the highest among all channels with Rs.1851 because of the existence of more number of marketing and higher marketing cost.*

Key Words: *consumer, dealers, consumption, cost, Marketing Channel and Price spread.*

1. INTRODUCTION:

The growth of rubber market in India is closely related to the development rubber plantation as well as rubber goods manufacturing industry. Due to the growth of plantation and industry rubber occupies an important position in the national economy with over 5000 manufacturing units (Both Tyre and Non-Tyre Manufacturers) producing a wide range of consumer and industrial products. Marketing of natural rubber is mainly through large growers, dealers and institutional agencies. During the last few decades the price of natural rubber was fixed by government of India from time to time on the advice of tariff commission. Rubber is a controlled commodity in India. Its production, consumption and sales have to be carried out under licenses issued by the rubber board under Rubber Act (Production and Marketing) 1947. One of the important functions is to promote the interest of rubber industry by such measures as it thinks fit for its development as far as the production and marketing of rubber are concerned. Pathanamthitta district enjoys technical advice and all other benefits of rubber board from regional development office situated in pathanamthitta and Rehabilitation Plantation Limited (RPL) situated in Punalur (Kollam District)

REVIEW OF LITERATURE

Dr. S. Jerome (2017) under his studies the agriculture is the backbone of every nation to meet its basic needs required for survival and aids in stability, sustainability and strengthens the economy. The agricultural marketing plays a vital role in easy way agro produce distribution to the customers. Like all the marketing activities, it also aims in profit making. It helps the farmers to reach their customers within very short lead time. In order to avoid isolation of small scale farmers from the benefits of agricultural produce they need to be integrated and informed with the market knowledge like fluctuations, demand and supply concepts which are the core of economy. India has huge potential for agricultural production, because it has a wide geographical range. As most of the rural people in India are engaged in agriculture and its allied activities, more and more provisions must be made available to integrate the marketing systems for agriculture, which must be available all over the country.

M.B. Dastagiri et.,al(2012)their study estimates the market costs, market margins, price spread, the producer's share of the consumer's rupee and the market efficiency of horticultural commodities under different supply chains, and suggests measures to improve marketing efficiency. The study was conducted in the states of Andhra Pradesh, Karnataka, Tamil Nadu, Punjab, Rajasthan, West Bengal, Manipur and Mizoram, covering 29 crop types. The results show that, in the case of most commodities, marketing costs, marketing margins, transport costs and labour charges adversely affect marketing

efficiency, and open market price, volume of produce handled and net price received increase market efficiency or have a positive effect. The highest marketing efficiency was found in the producer-to-consumer channel. Government policies should promote direct marketing models for more efficient horticultural marketing.

1.1. OBJECTIVES OF THE STUDY:

- To know the attitude of the planters towards the existing marketing pattern in natural rubber.
- To study the problems in natural rubber marketing.

1.2. DESIGN OF THE STUDY:

The present study was carried out in Pathanamthitta district in Kerala. Methodology adopted in the study is important for drawing generalisation and therefore sampling design, methods of conduct of field study and the tools of analysis used and discussed. To study the marketing of natural rubber at village level dealers, town level dealers, primary co-operative societies, taluk level co-operative dealers, and state co-operative societies were contacted. Ten village level dealers, ten town level dealers, ten primary co-operative societies, ten taluk level co-operative dealers, and ten state co-operative societies were chosen randomly from all taluk in pathanamthitta district for this study. The selected respondents were contacted individually and the required information to work out marketing cost and price spread were gathered. The selected respondents were contacted individually for the collection of data on marketing of natural rubber with the help of a pre-test and well-structured comprehensive interview schedule.

2. METHODOLOGY:

The study has been used both primary and secondary data. The first-hand information has been collected from market intermediaries through interview schedule. The secondary data has been collected from the official publications of the central and state government, journals such as Yojana, Rubber Asia and The Hindu Survey of Agriculture and several of rubber board in India like Indian Rubber Statistics, Rubber Board bulletin in Rubber Research Institute of India (RRII) and Rubber Statistical News.

2.1. FRAMEWORK OF ANALYSIS:

Appropriate statistical techniques price spread, Shepard’s method, composite index method and Garret ranking method have been used to analyse various categories of data collected from primary sources.

3. RESULT AND DISCUSSION:

The producers in the study area sell their produce through different channels. The channel of marketing of natural rubber identified in the study areas are:

- Producer - Village Level Dealers – Town level Dealer – Taluk level co-operative society – Industrial user.
- Producer – Primary Co-operative society – Taluk level co-operative society - State Co-operative Rubber marketing federation
- Producer – Taluk level co-operative society – State Co-operative Rubber marketing federation – Industrial user.

Marketing functions add value to the produce to be sold but they also involve costs which have ultimate impact on the profitability of the setters. The cost involved in moving the rubber from point of production of the point of consumption known otherwise as the cost of performing marketing functions is discussed below:

3.1. Marketing Cost of the Producer:

The cost incurred by the producer for one quintal which include the cost of preparation to market, packaging transporting loading and unloading, commission and rejection loss. The data collected from the sample respondents for the three channels are presented in table 1

Table 1
Cost incurred by the producer in marketing of natural rubber (100 kg)

Particulars	Channel I		Channel II		Channel III	
	Cost (Rs/Quinta I)	Per cent	Cost (Rs/Quintal)	Per cent	Cost (Rs/Quintal)	Per Cent
Preparation to Market	117	24.73	118	21.26	118	19.99
Packaging	79	16.81	79	14.27	79	13.42
Transporting, loading and unloading	162	34.31	187	33.82	174	29.50
Rejection	114	24.15	170	30.65	218	37.09
Total	472	100	554	100	589	100

Source: Primary Data

It is observed from table 1 that the cost incurred by the producer in marketing of one quintal of natural rubber amount to Rs.472 in channel-I, Rs.554 in channel-II and Rs.589 in channel-III obviously these costs incurred by the producers are essential to prepare natural rubber for sales to the intermediaries. The variation in the above percentage is caused by the difference in transporting loading and unloading charges. This is understandable as the producer has to transport the goods to the primary wholesaler marketing is case of channel II and III who is not always found near the place of production. The rejection loss in case of channel I, II and III is 24.15, 30.65 and 37.09 per cent respectively. The rejection loss in channel III is more.

3.2. Marketing cost of Intermediaries:

The details of marketing cost incurred by the intermediaries for one quintal of natural rubber were collected from the sample respondents and they are presented in table 2.

Table 2

Marketing Cost incurred by the Intermediaries 100 Kg

Particulars	Village Dealer		Town Level		Primary Co-operative society		Taluk level Co-operative society		State Co-operative Society	
	Cost (Rs/Quintal)	Per cent	Cost (Rs/Quintal)	Per Cent	Cost (Rs/Quintal)	Per cent	Cost (Rs/Quintal)	Per Cent	Cost (Rs/Quintal)	Per cent
Transporting loading unloading	63	31.94	43	32.21	48	29.18	35	22.67	25	12.56
Packaging	18	9.03	09	6.36	10	5.73	12	7.76	40	19.73
Storage	25	13.19	12	8.75	12	7.54	18	11.72	26	12.84
Staffing and communication	38	19.44	30	22.66	59	35.74	55	35.17	62	30.95
License fee	15	7.64	15	10.93	15	9.02	15	9.49	-	-
Rejection and weight loss	37	18.75	26	19.09	21	12.79	21	13.19	48	23.92
Total	196	100	135	100	165	100	156	100	201	100

It is observed from table 2 that the cost incurred by the intermediaries range from Rs.196, Rs.135, Rs.156, Rs.165 and Rs.201. out of the total marketing cost by the village level dealer transportation loading and unloading charges formed largest share of 31.94 per cent followed by staffing and communication at 19.44 per cent, this constitute 51.38 per cent of the total marketing cost. The marketing cost incurred by the producer is the lowest in channel II and III.

3.3. Price spread in natural rubber trade:

The difference between the price paid by the consumer and the price received by the producer for an equivalent quantity is known as price spread. The study of price spread in natural rubber marketing is an important aspect, as it reflects the shares of the producer and different intermediaries. The price spread varies depending on the number of intermediaries involved in the marketing channel. Hence more the number of intermediaries higher is the price spread and vice versa generally the channel having the lowest price spread is preferred. The price spread has decisive impact on the profit margin of the producer. Hence, an attempt is made to study the price spread. The cost incurred and margin earned by various market intermediaries in different channel in the process of marketing of one quintal of natural rubber study area are presented in table 3 It could be observed from table 3 that the producers share in the price paid by consumer varies from 85 per cent to 88 per cent in the three channels. It is also observed that the producers share in the maximum (87.05 per cent) in channel III followed by Channel II (87.99 per cent). The

producers price was the maximum in channel III with Rs.11,429 per quintal of natural rubber followed by Rs.11,350 per quintal in channel II. The price spread in channel I was the highest among all channels with Rs.1851 because of the existence of more number of marketing and higher marketing cost.

Table 3
Price Spread for Natural Rubber in Different Channels

S.No	Name of Functionary/Items of cost	Channel I		Channel II		Channel III	
		Cost (Rs/Quintal)	Per Cent	Cost (Rs/Quintal)	Per Cent	Cost (Rs/Quintal)	Per Cent
1	Producer						
	Net price received	11,187	85.80	11,350	87.05	11,429	87.66
	Marketing Cost	472	3.62	554	4.25	589	4.52
	Gross price received	11,659	89.42	11,904	91.30	12,018	92.18
2	Purchase price of village level dealer	11659	89.42	-	-	-	-
	Price paid	196	1.50	-	-	-	-
	Marketing Cost	266	2.04	-	-	-	-
	Marketing margin	12,121	92.96	-	-	-	-
	Price received						
3	Purchase price of Town level dealer	12,121	92.96	-	-	-	-
	Price paid	135	1.04	-	-	-	-
	Marketing Cost	351	2.69	-	-	-	-
	Marketing margin	12,607	96.69	-	-	-	-
	Price received						
4	Purchase price of Primary Co-operative society	-	-	11,904	91.30	-	-
	Price paid	-	-	165	1.27	-	-
	Marketing Cost	-	-	172	1.32	-	-
	Marketing margin	-	-	12,241	93.89	-	-
	Price received						
5	Purchase price of Taluk Co-operative society	12,607	96.69	12,241	93.89	12,018	92.18
	Price paid	156	1.20	156	1.20	156	1.20
	Marketing Cost	275	2.11	166	1.27	389	2.97
	Marketing margin	13,038	100.00	12,563	96.36	12,563	96.36
	Price received						
6	Purchase price of State Co-operative society	-	-	12,563	96.36	12,563	96.36
	Price paid	-	-	201	1.54	201	1.54
	Marketing Cost	-	-	274	2.10	274	2.10
	Marketing margin	-	-	13,038	100.00	13038	100.00
	Price received						
7	Purchase Price of the Industrial User	13038	100.00	13038	100.00	13038	100.00

3.4. Channel Efficiency:

The channel efficiency refers to the effectiveness or competence with which intermediaries in the channel perform their designated functions. It is directly related to the cost involved in moving goods from the producer to the consumer and the level of consumer satisfaction. At higher marketing cost might have been the result of increased efficiency if the additional satisfaction derived by consumer out weights the additional cost incurred on the marketing process. But a charge that reduces cost as well as consumer satisfaction may not indicate increase in the channel efficiency. In the present study the channel efficiency of the different channel has been studied using Shepherd method and Composite index method.

3.5. Shepherd Method:

The economic efficiency of the marketing system can be measured as the ration of the consumer price per unit of natural rubber of marketing cost per unit the higher the ratio, the higher is the efficiency of marketing system. In order to assess the channel efficiency in the sale of natural rubber Shepherd formula of the following is used

$$CE = \frac{V}{I}$$

Where

V = Value of produce sold (or) Consumer price of natural rubber

I = Total marketing cost

CE = Channel efficiency

The channel efficiency of the different channel is worked out using shepherd method and the results obtained are shown table 4:

Table 4
Channel Efficiency

	Channel I	Channel II	Channel III
Consumer Price (V) (Rs.Per Kg)	130.4	130.4	130.4
Total Marketing Cost (I) (Rs.Per Kg)	9.59	10.76	9.46
Channel Efficiency (CE)	13.59	12.11	13.78

The table 4 reveal that amongst the three channels, channel-III is the most efficient, the efficiency index for channel III is the maximum with 13.78 followed by channel I with 13.59. The channel efficiency in channel III is better than that of the other two because of lower marketing cost. This method does not take into account producers share and marketing margin which also the important components for calculating the channel efficiency.

3.6. Composite Index Method:

Composite index method is a comprehensive method which takes into account producers price, marketing cost and marketing margin to analyse the channel efficiency of the different marketing channels. The percentage of producers price, marketing cost and marketing margin to consumer final price per quintal of natural rubber are calculated and assigned with ranks. The scores are given based on the highest producers share in the consumer price, the lowest marketing cost incurred by the producer as well as by the intermediaries and the highest margin earned by the intermediaries. The efficiency of a market channel is evaluated by the mean scores. The channel which has the least mean score is considered to be the most efficient channel for the marketing of natural rubber. The composite index method was used to get the final ranks which provide indications of channel efficiency in various channels and the formula is

$$R = R_i/N_i$$

Where

R= Composite Index

R_i = Sum of ranks in each Channel

N_i = Number of performance indicators

The results of the analysis of channel efficiency for different channel are furnished in table 5.

Table 5
Channel Efficiency Analysis Using Composite Index Method

Marketing Channel	Producers share in consumer price (per cost of consumer price)	Marketing cost (Per cent consumer price)	Marketing margin (per cent consumer price)	Mean score	Rank
III	1	1	3	1.67	I
I	2	2	1	2.00	II
II	3	3	2	3.33	III

Source: Primary Data

The producers share marketing cost and marketing margin are ranked according to their expenses per quintal. It is inferred from table 5 that channel III is the most efficient with mean score of 1.67 followed by channel I with mean score of 2 comparing shepherd methods and composite index method the channel III again proves to be more efficient.

3.7. Problems of Marketing of Natural Rubber:

To analyse the problems faced by rubber marketing and the traders in marketing Garrett ranking techniques was used. The orders of merit given by the respondents were converted to rank using the formula:

$$100 (R_j - 0.5)$$

$$\text{Per cent Position} = \frac{\text{-----}}{N}$$

R_j = Rank given for a factor by an Individual

N = Number of Individual ranked

The identified problems of growers were ranked and the details are presented in table 6

Table 6
Problems of Marketing of Natural Rubber

S.No	Problems	Garrett Score	Rank
1	Price fluctuation	57.45	I
2	Dominance of private dealers	55.35	II
3	Inadequate market finance	53.42	III
4	Lack of standardisation and grading	47.66	IV
5	Lack of marketing information	44.43	V
6	Storage facility	43.63	VI
7	Changes in the import policy of the government	42.98	VII

Source: Primary Data

It is observed from table 6 that the price fluctuation was the major problem faced by the marketing of natural rubber. In another problem was dominance of private dealers. Down grading of rubber was the major problem faced by marketing channels lack of marketing information and storage facility are ranked in Vth and VIth respectively

4. FINDING AND CONCLUSION:

A majority of the producers (small holding (below 20 Hectare)) prefer to sell their produce to the village traders who visit the interior areas of cultivation. Marketing of rubber through cooperative was found to be efficient among the different market channels used. But only 25 per cent of the respondents used cooperatives to dispose of their rubber. Hence efforts must be made to make the functioning of cooperatives more effective to enable planters to reap a better price for their rubber.

4.1. LIMITATIONS OF THE STUDY:

The survey is to conducted only one district in Kerala

AUTHOR CONTRIBUTION:

Author only framed the conceptual framework, collecting the data through interview schedule, performed the qualitative and quantitative analysis and wrote manuscript.

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