Marketing Of Grapes In Tamil Nadu: A Case Study Of Coimbatore District

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INTRODUCTION

Many Indian policymakers and trade analysts today realize that the horticulture development has increased employment and foreign exchange earnings for the country. This realization is evident from the budgetary support that the horticulture department received, which was a meager ₹ 5 lakh only in the fourth five-year plan, but in the seventh five-year plan, the same amount rose to ₹ 24 crores. In terms of horticulture crop production, India is considered to be the most important country of the world. In India, Maharashtra is considered to be the most important state in the country among other horticulture products producing states. This state leads the country in the production of grapes, bananas, oranges and onions[1]. Grape is an important commercial fruit crop in India. Grapes are widely cultivated in India because of the prevalence of congenial agro climate conditions in our country. In India, Tamil Nadu is one of the most important states in our country in terms of grape production after the states of Maharashtra and Karnataka. In Tamil Nadu, Grapes were cultivated in 2400 hectares (Hort Stat -2003), with the input of 54,800 Tonnes. Tamil Nadu achieved the highest grape productivity among other grape producing states of India. The grape cultivation is mainly concentrated in three districts of Tamil Nadu - Madurai, Theni and Coimbatore.

Even though the productivity and production of horticulture products is high in India, the economic condition of the growers is not favorable. It is because of growers' weak bargaining power and poor economic conditions, that the marketing intermediaries are harassing and cheating them in different ways (Deepak M., et al., 2006). The previous studies show that the earning potential in grape cultivation is high. Even if grape cultivation allows the growers to earn more, the growers are not interested in cultivating grapes, as they face a large number of marketing problems. In order to understand these problems, a study about the marketing practice of grape growers, marketing cost, margin, price spread and marketing efficiency of grapes in Tamil Nadu was needed, so as to exhibit many facts relating to producers' share in the consumer's rupee and marketing channels involved in marketing of grapes.

REVIEW OF LITERATURE

The review of the earlier studies and experience of the past research works were of gigantic help in evaluating the soundness of the concepts used and the methodology followed. This section briefly reviews the concepts adopted in the previous studies and specifies appropriate concepts as applicable to the present study.

According to Dr. S.Raju[2], marketing margins and costs are relevant, as they reveal many facts of marketing and the price structure as well as efficiency of the system. To analyze the marketing efficiency of the various marketing channels, Shepherd's Formula and Acharya and Agarwal's formula were used.

According to Sreenivasa et al.,[3] the cost and efficiency of marketing depend primarily on the channels of marketing. Their study shows that marketing efficiency of grape market is higher because of lower marketing cost and intermediaries' margins. The Acharya and Agarwal formula was used to estimate of efficiency of marketing.

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[1] Shah & Deepak, *Assessing Economics of Grape Cultivation in India*, http:// mpra.up.uni-muenchen.de/3927. accessed on 10 November, 2011.

[2] Dr. S. Raju (2008), "Marketing Cost, Margin, price Spread and Marketing Efficiency of Paddy- An Analytical Study" , *Marketology*, Special Issue 2008, pp. 44-49.

[3] D.Sreenivasa Murthy, et al. (2009), "Marketing & Post-Harvest Losses in fruits: Its Implications on Availability & Economy" , *Indian Journal Of Agricultural Economy*, Vol.64, No.2, April-June-2009, pp.259-275.

According to Prof.M. Devajar et al[4]., for marketing of grapes in India, four different marketing channels are used by the growers and further, they found that marketing cost differs from person to person, place to place and time to time and further, they used the output to input ratio technique for measuring the efficiency of marketing channels.

J.M. Talathi, et al.,[5] observed that the ratio of the total value of goods marketed and total marketing cost is used as a measure of efficiency. For measuring the efficiency, they used the Shepherd's formula.

All the previous studies concluded that the marketing cost, marketing margin of intermediaries and marketing efficiency are varying and depend on the agricultural produce, place, time and person. Hence, in the present study, the researchers used the Shepherd formula and Acharya Formula to find out the marketing efficiency of various marketing channels of grapes in the study area.

STATEMENT OF THE PROBLEM

The studies on marketing cost and margin include many facts i.e., marketing practice, price structure and efficiency of the marketing system[6]. The magnitude of the marketing margin relating to the price of the product indicates the efficiency of the marketing system. The Marketing margin reveals the efficiency of the intermediaries between the producer and the consumer in respect of the services rendered and remuneration received by them. The approximate figure of the marketing margin helps in finding the cost involved in the marketing process. If the higher magnitude of marketing margin is not adequately shared by the actual producer, it severely affects the growth of production. In the present study, the producers' share in consumer's price for grapes has been measured in the three channels found in the study area.

OBJECTIVES OF THE STUDY

The present study has the following objectives :

1. To work out the marketing cost, marketing margin and price spread in marketing of grapes in the study area.

2. To find out the growers' share in a consumer rupee in the sale of grapes.

3. To analyze the marketing efficiency of different channels of grapes.

4. To give suitable suggestions for efficient marketing of grapes in the study area.

CHOICE OF THE STUDY AREA

Among grapes producing states of India, Tamil Nadu stands first in terms of productivity. Nearly 3000 hectors are used for grape cultivation. In Tamil Nadu, climatic conditions favour the harvest of three crops possible in a year or five crops in two years. Thus, the crop is available in the market almost throughout the year[7]. In Tamil Nadu, seven districts are involved in grape cultivation, but grapes are widely cultivated in three districts - Madurai, Theni and Coimbatore. These districts have a very good irrigation system and the Coimbatore district shows the highest productivity of grapes as compared with other districts. This is the reason for selecting Coimbatore as the study area.

COLLECTION OF DATA

A pilot study was conducted to develop comprehension of the marketing processes and activities involved in the sale of grapes by growers in the study area. Based on the information gathered from growers, a detailed interview schedule was drafted, pre - tested and used in the field survey. For collecting data, an Interview schedule was administered among 50 growers, who were selected from the study area by applying convenient sampling technique. In order to study the marketing channel, price spread, and to depict the growers' share in the consumer rupee, 10 market intermediaries from identified market functionaries were selected and necessary information were collected. The main

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[4] Prof. M. Devajar, et al. (2008), "Marketing Of Grapes In Karnataka: A Case Of Bangalore And Bijapur District", *Indian Journal of Marketing,* Volume 38, Number 2, pp. 36-41 & p. 48.

[5] J.M.Thalathi, et al. (2002), "Price Spread in Marketing of White Onion in Raigad District of Maharastra", *Agricultural Marketing*, October-Decmber,2002, pp.22-26.

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[7] K.G. Shanmugavelu (1998), *Viticulture in India*, Agro Botanica, New Delhi, p. 2.

source of secondary data was Directorate Of Agricultural Marketing Statistics Year Book, books, journals and the internet.

TOOLS FOR ANALYSIS

Frequency analyses were used to test the marketing cost and marketing margin of grapes. Besides, Shepherd's Formula and Acharya & Agawal's Formula were used to examine the marketing efficiency of the various marketing channels.

GRAPE PRODUCTION

In India, nearly 2 million tonnes of grapes are produced annually. Maharashtra is having a major share (75%) in the area and production of grapes in India. Grape cultivation occurs in 33 thousand hectares and produces an output of 1452000 tonnes, Tamil Nadu is also having a significant share in the area (3000 hectors) and production of grapes (92000 tones) and other grape producing states are Karnataka, Punjab, Andhra Pradesh and Jammu & Kashmir. Nearly 85 per cent of the total production is consumed as table grapes in India and approximately, 3 per cent of fresh grapes are exported to the Middle East and European countries and 2 per cent of the produce is used for the manufacturing of Juice and Wine, and the produce is also dried for raisin production. The following Table 1 shows the area and production of grapes in India and Tamil Nadu.

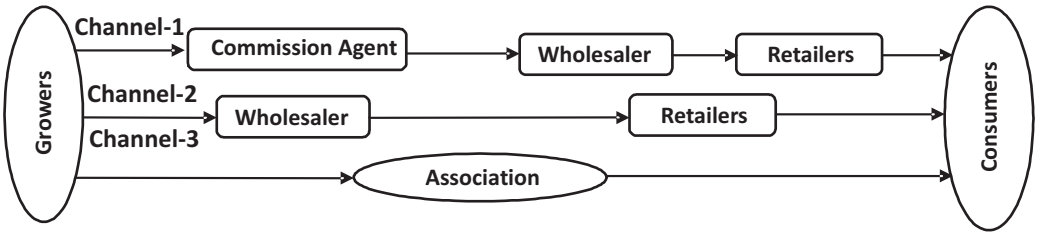
Table 1 : Grape Production During 2001-02 To 2008-09

Year	India		Tamil Nadu	
	Area (000'ha)	Production in '000MT	Area (ha) (000'ha)	Production '000MT
2001-02	47.5	1184.2	2.354	51.73
2002-03	52.1	1247.8	2.444	35.67
2003-04	57.8	1474	2.484	59.90
2004-05	60.5	1546	2.475	69.70
2005-06	64.3	1650	2.611	84.80
2006-07	65.0	1685	2.8	91.61
2007-08	68.0	1733	2.607	83.50
2008-09	69.0	1764	3.1	91.01

Source: 1. FAO Statistics, 2009
2. Directorate of Economics and Statistics, websites

❁Marketing Channels: The marketing channel is the conduit through which grapes are being moved from the production place to a consumption place. Four different marketing channels are used by Indian grapes growers to move products from the point of production to the point of consumption. They were identified[8] and categorized in the

Figure 1 : Marketing Channels Used By Grape Cultivators In The Study Area



Source : Indian Journal of Marketing, Volume 38, Number 2 , p. 37

[8] B. Sowmya Shankar and et al. (2008), "Marketing Of Grapes In Karnataka: A Case Of Bangalore And Bijapur District", *Indian Journal of Marketing,* Volume 38, Number 2, pp. 36-41 & p. 48.

following manner.

1. Cultivators - Pre-harvest contractor - Wholesaler - Retailer - Consumers.

2. Cultivators - Commission Agent - Wholesaler - Retailer - Consumers.

3. Cultivators - Growers Association - Consumers.

4. Cultivators - Consumers.

But in the study area, Marketing channels were limited to only three channels. They are identified and categorized in the Figure 1. In the study area, most of the growers (80% of the produce) sold their products through Channel- 2, 15 % sold their produce through Channel-1and the remaining 5% of the products were sold through the Growers' Association.

ANALYSIS AND INTERPRETATION OF DATA

❁**Price Spread For Farmers:** Price-spread is the difference between the actual price received by the producers and the price paid by the consumers. The net price received by the producers, marketing cost and margins were analyzed for farmers in order to evaluate the marketing efficiency of the different marketing channels.

Table 2 : Marketing Cost Incurred By The Grape Growers (for 100 Kg) In Various Channels

S.No	Particulars	Channel I		Channel II		Channel III	
		In ₹	%	In ₹	%	In ₹	%
1	Cleaning & grading	13.50	3.17	13.50	3.40	10.50	2.68
2	Packaging	200	46.89	200	50.35	200	50.9
3	Loading & Unloading	22	5.16	22	5.54	22	5.61
4	Transportation	100	23.45	100	25.17	130	33.1
5	Commission	52.50	12.31	31.5	7.93	-	
6	Post harvest loss incurred during marketing of grapes (2%)	38.50	9.02	30.25	7.61	30.25	7.71
	Total Marketing Cost	**426.50**	**100**	**397.25**	**100**	**392.75**	**100**

Source: Field Investigation

❁**Marketing Cost:** Table 2 indicates that the grape growers were incurring the total marketing cost of ₹ 426.50, ₹ 397.25 and ₹ 392.75 for 100 kg in Channel-I, Channel-II and Channel-III respectively. On their total marketing cost, magnitude of packaging expenses were very high, as compared with other components of marketing cost, with 46.89, 50.35 and 50.90 per cent on Channel-I,II and III respectively, followed by transportation expenses of 23.45, 25.17 and 33.10 per cent respectively. In the study area, growers normally didn't incur any cleaning & grading expenses during

Table 3 : Marketing Cost Incurred By The Intermediaries (For 100 Kg)

S.No	Particulars	Agent & Wholesaler ₹	%	Retailers ₹	%	Association ₹	%
1	Labour	17.5	4.52	75	22.76	20	8
2	Cold storage	12.5	3.23	25	7.59	-	-
3	Loading & Unloading	34	8.76	15	4.55	15	6
4	Transportation	140	36.08	80	24.28	160	64
5	Commission	100	25.77	-	-	-	
6	Post harvest losses incurred during marketing of grapes	54 (2% Loss)	13.91	94.5 (3% loss)	28.68	25	10
7	Other Miscellaneous (Shop Rent, Phone & Electricity, etc.,)	30	7.73	40	12.14	30	12
	Total Marketing Cost	**388**	**100**	**329.50**	**100**	**250**	**100**

Source: Field Investigation

the normal climatic conditions, however, during winters and rainy season, they incurred cleaning and grading expenses. On an average, 9.02, 7.61 and 7.71 per cent post harvest losses were incurred by the growers at the farm and the assembly level.

Table 4 : Price Spread Analysis for 100 Kg

PARTICULARS	Channel I	Channel II	Channel III
PRODUCER			
Net Price Received	1673.50	1702.75	1707.25
Marketing Cost	426.50	397.25	392.75
Gross price received from Association/ wholesalers/ Commission Agent	2100	2100	2100
CONTRACTOR/ COMMISSION AGENT			
Marketing Cost	388	--	--
Marketing Margin	124.40	--	--
Gross price received from Association/ wholesalers/ Commission Agent	2612.40	--	--
WHOLESALER			
Marketing Cost	388	398	--
Marketing Margin	120.02	374.86	--
Gross price received from Association/ wholesalers/ Commission Agent	3120.42	2872.86	--
RETAILERS			
Marketing Cost	329.50	329.50	250
Marketing Margin	137.99	385.55	200
Consumer price for 100 Kg grapes	3587.91	3587.91	2550
Source: Field Survey			

The Table 3 shows that the total marketing cost for wholesalers, retailers and association were ₹ 388, ₹329.50 and ₹ 250 respectively and also shows evidence that the transportation and commission costs occupy 36.08 per cent & 25.77per cent cost in the total marketing cost for the agents & wholesalers and for retailers, high post-harvesting losses lead to high marketing cost followed by transportation and labour charges. In case of growers' association, transportation expenses were more. It can be inferred that the post harvesting losses accounted for 7.73 per cent, 28.68 per cent and 10 per cent respectively for wholesalers, retailers and growers' association.

Table 5 : Price-Spread For Farmers Under Different Channels

Particulars	Channels		
	I	II	III
Producers Price	1673.50	1702.75	1707.25
Marketing Margin	382.41	760.41	200
Marketing Cost	1532	1124.75	642.75
Consumer's Price	3587.91	3587.91	2550
Price Spread	1914.41	1885.16	842.75
Source: Computed data			

The Table 4 exhibits about the price spread from consumers to farmers. In the fruit market, consumers paid a price of ₹ 3587.91 for 100 Kg. of grapes in the first and the second channel. But they were paying only ₹ 2550 in the third channel. Even though the association offers the produce for a low price, the consumers normally were not entertained to purchase the produce from the association, as the association shop is situated out of the city only. In the Channel I, II and III, the producers were getting a net price of ₹ 1673.50, ₹1702.75 and ₹1707.25 respectively. The total marketing cost involved in the marketing process accounted for ₹ 1532, ₹ 1124.75 and ₹ 642.75 in Channel I, II and III respectively. In the study area, normally, the growers were getting the same gross price from each intermediary, as they

incurred different marketing costs of ₹ 426.50, ₹ 397.25 and ₹ 392.75 respectively in the marketing channels.

❁ **Price Spread:** The Table 5 exhibits the price spread in the different marketing channels. Price spread in the Channel I, II and III was ₹ 1,914.41, ₹ 1,885.16 and ₹ 842.75 respectively.

Table 6(a) : Marketing Efficiency

Particulars	I	II	III
Consumer price for 100 Kg Grapes	3587.91	3587.91	2550
Total Marketing Cost	1532	1124.75	642.75
Shepherd's Marketing Efficiency	1.34	2.19	2.97
Source: Computed data			

❁ **Marketing Efficiency :** Marketing practice is to be efficient if the total marketing margin is reduced for the given marketing cost. Marketing efficiency was measured by using Shepherd's formula, and Acharya & Agarwal's Formula.

❁ **Shepherd Formula:**

$$ME = (V / I) - 1$$

Where: *ME*: Index of Marketing Efficiency;
V : Value of Goods sold or Consumer Price;
I : Total Marketing Cost or Marketing Cost per Unit.

Table 6(b) : Marketing Efficiency

Particulars	Marketing System		
	I	II	III
Total marketing Cost (I)	1532	1124.75	642.75
Output of the Marketing System (O) (Consumer Price - Producer Price)	1914.41	1885.16	842.75
Marketing Efficiency (O/I)	1.25	1.68	1.31
Marketing Efficiency Index (ME * 100)	125	168	131
Source: Computed data			

It is observed from the Table 6(a) that the marketing efficiency in Channel III (2.97) was greater than it was in Channel I and II (1.34 & 2.19). More number of intermediaries were involved in the Channel I, which lead to a high marketing cost .

❁ **Acharya & Agarwal's Formula:** The marketing efficiency was measured by using the following formula as suggested by Acharya and Agarwal (2001).

$$E = (O / I) \times 100$$

Where: *E* : Marketing Efficiency;
O : Output of the marketing system (value added, that is, Difference between Consumer's price and producer's price OR Marketing Margin plus Marketing Cost) ;
I : Total Marketing cost .

It is observed from the Table 6(b) that the marketing efficiency index of Channel I, II and III was 125, 168 and 131 respectively. Marketing efficiency index of Channel II was greater than that of Channel I and III, but value added in Channel I was greater than it was in Channel II and III.

FINDINGS

❁ Tamil Nadu has a significant share in India's grape production, with a cultivation area of 3000 hectors and output of 92000 tones.

❁ The grape production showed an increasing trend in Tamil Nadu, as well as in India, during the study period.

❁ In the study area , the Marketing channels were limited to three channels. The growers mostly (80% of produce) sold their products through Channel- 2, another 15 % sold their produce through Channel-1, and the remaining 5% of the produce was sold through the growers' association.

❁ The grapes growers incurred the total marketing cost of ₹ 426.50, ₹ 397.25 and ₹ 392.75 for 100 kg in Channel-I, Channel-II and Channel-III respectively.

❁ On the total marketing cost, the magnitude of the packaging expenses were very high as compared with other components of the marketing cost, which were ₹ 46.89, ₹ 50.35 and ₹ 50.90 per cent on Channel-I,II and III respectively.

❁ The Total marketing cost for wholesalers, retailers and association were ₹ 388, ₹ 329.50 and ₹ 250 respectively.

❁ In the Channel I, II and III, the producers got a net price of ₹ 1673.50, ₹ 1702.75 and ₹1707.25 respectively.

❁ The Total marketing cost in the Channels involved in the marketing process was ₹ 1532, ₹ 1124.75 and ₹ 642.75 in Channel I, II and III respectively.

❁ The price spread in the marketing Channels I, II and III was ₹ 1,914.41, ₹ 1,885.16 and ₹ 842.75 respectively.

❁ As per the Shepherd's formula, the marketing efficiency in Channel III (2.97) was greater than it was in Channel I and II (1.34 & 2.19).

❁ As per Acharya and Agarwal's formula, the marketing efficiency index of Channel I, II and III was 125, 168 and 131 respectively.

❁ Marketing efficiency index of Channel II was greater than it was for Channel I and III, but value added in Channel I was greater than it was in Channel II and III.

SUGGESTIONS

❁ As the marketing cost is low in case of sale of grapes made through outlets run by grapes growers' association, the growers should strengthen this channel further. The growers should try to offload most of their produce through this channel. This results in more return to growers out of grape cultivation.

❁ The growers should interlink the different associations formed at different districts by having common federations at the state level. This federation may run sales outlets for selling grapes throughout the country.

❁ The set up of federation common to grape growers may give them financial strength to establish cold storage facilities for stocking the grapes till they find remunerative prices for their produce.

❁ The growers should try to establish common facilities for having value added products out of use of grapes, which will open up new and export markets for grapes. The growers could earn more profit out of these value added products.

❁ The growers should form co-operatives among themselves. The growers could buy all the inputs for grape cultivation through these co-operatives, which will result in low cost of inputs. In the same way, sales outlets may be established through these co-operatives, which will facilitate quick sales and better price for their produce.

CONCLUSION

The grapes being perishable goods, the government should extend a helping hand to the growers. The government should establish cold storage facilities at the district headquarters, where there is a large state production of grapes - such facilities will help the growers in solving their storage related problems. The growers could also avoid distress sale of their produce. These steps on the part of government will increase the profits for the growers. The government should instruct banks to be liberal in granting loans to the grape cultivators, which ultimately presents in increase in number of growers opting for grape cultivation. As grapes are one of the important horticultural products, the Government should encourage more research on grape cultivation, so that production and productivity of the grapes could be enhanced.

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