MARKETING OF TURMERIC PRODUCTION IN MIDDLE GUJARAT

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ABSTRACT

In this study, an attempt has been made to study the marketing cost, margin and price spread in marketing of turmeric. The per quintal total marketing cost incurred by different market functionaries in channel-I was Rs. 840.01 and it was Rs. 89.25 in channel-II. The difference in marketing cost was due to the less number of intermediaries are involved in channel-II. Similarly, the total margin earned by different functionaries was Rs. 809.33 per quintal in channel-I and Rs. 1619.71 in channel-II. In channel-I the margin was higher at retailers' level compared to wholesaler-cum-commission agents, constituting 20.41 per cent and 8.39 per cent of consumer's price, respectively. Further, it was noticed that the producer's share in consumer's rupee was high in channel-II (44.90 per cent) than channel-I (41.31 per cent). The most significant production and marketing constraint being faced by farmers were labour shortage, high cost of planting material, high cost of labours, non availability of quality planting material, low price of the product, facility of curing /processing is not available, lack of market information lack of developed market for processed turmeric and high cost of processing etc.

Keywords: turmeric, marketing channels, marketing cost, price spread, constraints

INTRODUCTION

The Indian turmeric is well known by the name of 'Indian Saffron' scientifically it is known as *Curcuma longa* L, belong to family: Zingiberaceae. It is a spice used as dried rhizome by native of South Asia particularly India from ancient time. Turmeric is a important and commercial crop grown in India. With respect to production and export India is a leader in the world accounting about 78 per cent of world turmeric production and 60 per cent of world export (Tholkappian and Rukmani, 2013). It is used in diversified forms as a condiment, flavouring and colouring agent and as a principal ingredient in Indian culinary as curry powder (Naik, 2013). It has anti-cancer and anti-viral activities and hence finds use in the drug and cosmetic industries in addition to its use in religious ceremonies. 'Kum-kum', popular with every house wife, is also a by-product of turmeric. It finds a place in offerings on religious and ceremonial occasions. A type of starch is also being extracted from a particular type of turmeric. Indian turmeric is known for best quality cur cumin content. The increasing demand for natural products as food additives makes turmeric as ideal produce as a food colorant (http://agritech.tnau.ac.in/banking/PDF/Tumeric.pdf).

United Arab Emirates (UAE) is the major importer of Indian turmeric accounting for about 16 per cent of the total exports, followed by United States of America with about 10 per cent (Reddy, 2014). In India Andhra Pradesh, Tamil Nadu, Orissa, Karnataka, West Bengal, Gujarat, Meghalaya, Maharashtra, Assam are some of the important states cultivates turmeric, of which, Andhra Pradesh alone occupies 35.0 % of area and 47.0 % of production (http://vikaspedia.in/agriculture/crop-production/package-of-practices/spices/turmeric). During 2015-2016, the country produced 943 thousand tons of turmeric from an area of 186 thousand ha. This increased from 1077 thousand tons from an area of 223 thousand ha in the year 2017-18. (http://agricoop.nic.in/statistics/horticulture, Horticulture Statistics Division, Dept. of Agriculture, Cooperation &Farmers Welfare)

In Gujarat the major turmeric cultivating districts are Navasari, Dahod, Surat, Mahisagar, Panchamahal, Dang, Chhota Udepur and Anand. Gujarat produces 69.25 thousand tons from the area of 3.55 thousand during 2015-16 which has increased from 78.911 thousand tons from the area of 4.005 thousand ha during 2017-18 (https://doh.gujarat.gov.in/index.htm, Directorate of Horticulture, Agriculture farmer's welfare and Co-operation Department, Government of Gujarat).

The increase in production is possible mainly through improvement in productivity of the crop that could be achieved by efficient utilization of available resources efficient marketing system. In this context, the present study was planned to analyze the marketing system of turmeric.

OBJECTIVE

To study the marketing of turmeric production in middle Gujarat

METHODOLOGY

Selection of area, respondents and marketing functionaeries

From nine districts in the Middle Gujarat, two districts namely Mahisagar and Anand and from each selected districts, two talukas were selected purposively on the basis of concentration of area and farmers involved in turmeric production. From Mahisagar district Lunawada and Santrampur taluka and from Anand district Anand and Borsad taluka were selected for detailed study. From each selected taluka 15 respondents were selected randomly those who are engaged in turmeric cultivation with direct sale in the market without processing and 15 respondents who are engaged in turmeric cultivation and sale the product after processing. Thus, total 120 (4x30) respondents were selected to achieve the stipulated objectives of the study.

A sample of 10 functionaries of each type associated in marketing of turmeric spread over two main markets that is Lunawada and Anand market of the study area was selected to study the marketing cost, margin and price spread. The study is conducted during 2018-19.

Marketing costs, margins and price- spread

The marketing cost and margins including average gross margin, absolute margin, percentage margin, producer's share in consumer's rupee and total cost of marketing was calculated for the major channel found in study area. It was worked out using following formulae (Acharya and Agrawal, 2011).

Average Gross Margin

Average gross margin at each successive level of marketing was calculated by dividing the differences of sale value and purchase value by the quantity of the produce handled.

AGM /Total sale value – Total purchase value/ Quantity of produce handled

Absolute Margin of the Middleman (Ami):

Absolute margin of the middleman was calculated by deducting the purchase price and cost incurred by him from the sale price.

$$Ami = P_{Ri} - (P_{Pi} + C_{mi})$$

Percentage Margin of the Middleman (Pmi): Percentage margin of the middleman was calculated by expressing the absolute margin as percentage of sale price.

$$Pmi = P_{Ri} - (P_{Pi} + C_{mi})/ P_{Ri}$$
Where,

P_{Ri} = Receipt per unit (sale price)

P_{Pi} = Purchase price of goods per unit (Purchase price)

C_{mi} = Cost incurred on marketing per unit

Producer's Share in Consumer's Rupee

$$Producer\ Price\ (P_F) = P_A - C_F$$

Where,

P_A = Wholesale price in the primary assembling market

C_F = Marketing cost incurred by farmer

$$P_S = P_F/P_r \times 100$$

Where,

P_S = Producer's share

P_F = Producers price

P_r = Retail price (*i.e.* paid by the consumer)

Price-Spread

Price-spread refers to the differences between the price paid by the ultimate consumer and the price received by the producer for an equivalent quantity of the farm produce.

$$Price\text{-}spread = P_r - P_F$$

Total Cost of Marketing

Total cost of marketing is the sum total of costs incurred by the farmer and different middlemen:

$$C = C_F + C_{m1} + C_{m2} + C_{m3} + \ldots\ldots\ldots + C_{mn}$$

Where,

C = Total cost of marketing

C_F = Cost of marketing incurred by the farmer and

C_{m1}, C_{m2}, C_{m3}, C_{mn} = Cost incurred by different middlemen.

RESULTS AND DISCUSSION

Marketing cost, margin and price spread

Marketing is a very important activity of agricultural commodities as the efficient marketing system will serve the best price to the producer. In the study area, there are two marketing channels were found for marketing of fresh turmeric while, there was direct marketing channel was found for marketing of processed turmeric. The farmers who involved in the processing of turmeric was directly selling the produce to the consumers without any intermediaries either they have the direct contact to the pharmaceutical companies or the local consumers (Producer –consumer).

The marketing channels identified for fresh turmeric in study area were as follows:

Channel I: Producer-Wholesaler–cum-Commission Agent–Retailer – Consumer

Channel II : Producer– Local Trader–Consumer

Marketing cost, margin and price spread of turmeric is furnished in Table 1.

Table 1: Marketing cost, margin and price spread of turmeric

Particular	Channel-I		Channel-II	
	₹/q	% share in consumer's rupee	₹/q	% share in consumer's rupee
Net price receive by producer	1160.79	41.31	1392.51	44.90
Cost incurred by producer				
Cleaning & Sorting	19.87	0.71	19.49	0.63
Packaging	44.41	1.58	-	-
Loading	11.67	0.42	-	-
Transportation	67.01	2.38	-	-
Weighment	6.25	0.22	-	-
Commission charges	140	4.98	-	-
Total cost	**289.21**	10.29	**19.49**	0.63
Producer sale price/Local merchant & wholesaler cum commission agent purchase price	**1450**	51.60	**1412**	45.53
Cost incurred by local merchant				
Loading & unloading	-	-	26.09	0.84
Transportation	-	-	43.67	1.41
Total cost	**-**	-	**69.76**	2.25
Cost incurred by wholesaler cum commission agent				
Market fee	20	0.71	-	-
Packaging	42.32	1.51	-	-
Labour cost (loading & unloading)	30.11	1.07	-	-
Damage/spoilage	164.22	5.84	-	-
Miscellaneous cost	13.78	0.49	-	-
Total cost	**270.43**	9.62	-	-
Sale price of wholesaler cum commission agent	**1956.14**	69.61	-	-
Cost incurred by retailer				
Market fee	100	3.56	-	-
Labour cost (loading & unloading)	23.03	0.82	-	-
Transportation	33.26	1.18	-	-

Particular	Channel-I		Channel-II	
	₹/q	% share in consumer's rupee	₹/q	% share in consumer's rupee
Storage loss	112.69	4.01	-	-
Miscellaneous cost	11.39	0.41	-	-
Total	**280.37**	9.98	-	-
Marketing margin of				
(a) Local trader	-	-	1619.71	52.22
(b) Wholesaler cum commission agent	235.71	8.39	-	-
(c) Retailer	573.62	20.41	-	-
Total Margin incurred by all functionaries	**809.33**	28.80	**1619.71**	52.22
Total Marketing Cost Incurred by all functionaries	**840.01**	**29.89**	**89.25**	**2.88**
Price spread	**1649.34**	**58.69**	**1708.96**	**55.10**
Sale price of retailer/purchase price of consumer/ Sale price of local merchant	**2810.13**	100.00	**3101.47**	100.00

It was observed that per quintal marketing cost of turmeric growers was ₹ 289.21 in marketing channel-I on sale to Wholesaler-cum- commission agent and ₹ 19.49 on sale to local merchant in channel-II. Out of the total cost, commission charges was highest (₹ 140.00 per quintal) followed by transportation cost (₹ 67.01 per quintal) and packaging cost (₹ 44.41 per quintal) in channel-I. In channel-II only cleaning and sorting cost was incurred by producer *i.e.* ₹ 19.49 per quintal. Further, it could be seen from table that the total marketing cost borne by wholesaler-cum-commission agent was ₹ 270.43 per quintal in channel-I. Among the various cost components incurred by wholesaler-cum-commission agent, Damage/spoilage accounted highest for about ₹ 164.22 per quintal followed by packaging (₹ 42.32 per quintal), Labour cost (₹ 30.11 per quintal) and market fee (₹ 20.00 per quintal).

Among the various retailer cost components, storage loss accounted for ₹ 112.69 per quintal followed by Market fee (₹100 per quintal) and transportation (₹ 33.26 per quintal). While total marketing cost incurred by village merchant was ₹ 69.76 per quintal in channel-II. Moreover, the per quintal total marketing cost incurred by different

market functionaries in channel-I was ₹ 840.01 and it was ₹ 89.25 in channel-II. The huge difference in marketing cost was due to the less number of intermediaries are involved in channel-II. Similarly, the total margin earned by different functionaries was ₹ 809.33 per quintal in channel-I and ₹ 1619.71 in channel-II. In channel-I the margin was higher at retailers' level (₹ 573.62 per quintal) compared to wholesaler-cum-commission agents (₹ 235.71 per quintal), constituting 20.41 per cent and 8.39 per cent of consumer's price, respectively. Further, it was noticed that the producer's share in consumer's rupee was high in channel-II (44.90 per cent) as compared to channel-I (41.31 per cent) and the price spread in marketing was ₹ 1649.34 per quintal in channel-I and ₹ 1708.96 in channel-II.

Constraints faced by processed and non-processed farmers

The production constraints being faced by the farmers those who are involved in turmeric processing were ranked according the frequency of the sample respondents and the results are given in Table 2.

Table 2: The major constraints faced by processed turmeric farmers (n=60)

Sr. No.	Constraints	Frequency	Percent
(A)	**Production constraints**		
1	High labour cost	54.00	90.00
2	High cost of planting material	56.00	93.33
3	Non availability of quality planting material and finance	47.00	78.33
4	Uncertainty in production	44.00	73.33

Sr. No.	Constraints	Frequency	Percent
5	Labour shortage	59.00	98.33
6	Lack of technical guidance	46.00	76.67
7	Problem of insect, pest and diseases	32.00	53.33
(B)	**Marketing constraints**		
1	Low price	57.00	95.00
2	Lack of developed market for processed turmeric	51.00	85.00
3	Facility of curing /processing is not available (Mechanized/ advanced technology)	55.00	91.67
4	High cost of processing	41.00	68.33
5	Lack of market information	52.00	86.67

The most significant constraint was labour shortage being faced by 98.33 per cent respondents followed by high cost of planting material (93.33 per cent), high cost of labours, non availability of quality planting material, lack of technical guidance, uncertainty in production *etc*. Among the marketing constraints, majority (95.00 per cent) respondents faced low price of the product followed by facility of curing /processing is not available, lack of market information, lack of developed market for processed turmeric and high cost of processing. In case of non-processed farmers the foremost production constraints are labour shortage, high cost of planting material, quality planting material, high labour cost *etc*. The major marketing constraints are prices are not remunerative, high transportation cost, inefficient APMC markets *etc.,* (Table 3).

Table 3: The major constraints faced by non-processed turmeric farmers (n=60)

Sr. No.	Constraints	Frequency	Percent
(A)	**Production constraints**		
1	High labour cost	50.00	83.33
2	High cost of planting material	53.00	88.33
3	Problem of quality planting material	51.00	85.00
4	Problem of finance	32.00	53.33
5	Uncertainty in production	39.00	65.00
6	Labour shortage	57.00	95.00
7	Lack of technical guidance	44.00	73.33
8	Problem of insect, pest and diseases	31.00	51.67
(B)	**Marketing constraints**		
1	Prices are not remunerative	56.00	93.33
2	Inefficient APMC market	49.00	81.67
3	Exploitation by local traders/market middlemen	43.00	71.67
4	High cost of transportation	54.00	90.00
5	Lack of market information	47.00	78.33

CONCLUSION

The study revealed that major two marketing channels were found in marketing of fresh turmeric in the study area and there was no proper existed channels was found for processed turmeric either it was sale to direct consumer or some personal contacts. The per quintal total marketing cost incurred by different market functionaries in channel-I was Rs. 840.01 and it was Rs. 89.25 in channel-II. The huge difference in marketing cost was due to the less number of intermediaries are involved in channel-II. Similarly, the total margin earned by different functionaries was Rs. 809.33 per quintal in channel-I and Rs. 1619.71 in channel-II. In channel-I the margin was higher at retailers' level (Rs 573.62

per quintal) compared to wholesaler-cum-commission agents (Rs 235.71 per quintal), constituting 20.41 per cent and 8.39 per cent of consumer's price, respectively. Further, it was noticed that the producer's share in consumer's rupee was high in channel-II (44.90 per cent) as compared to channel-I (41.31 per cent) and the price spread in marketing was Rs. 1649.34 per quintal in channel-I and Rs. 1708.96 in channel-II. The major production and marketing constraints being faced by the sample turmeric growers were labour shortage, high cost of planting material, high cost of inputs, High cost of transportation, prices are not remunerative, facility of curing /processing is not available and exploitation by local traders (Vinaya *et al.* 2017).

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