

PRICE SPREAD AND MARKETING EFFICIENCY IN MARKETING OF TOMATO IN SANGANER TEHSIL OF JAIPUR DISTRICT (RAJASTHAN)

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ABSTRACT

Agricultural marketing is all about marketing practices, market infrastructure, and distribution channel which are adopted by agriculturists to dispose of their marketed surplus at a remunerative price to the customer and to assure a supply of agricultural raw materials at reasonable cost. This study was carried out to calculate price spread and marketing efficiency in marketing of tomato in Sanganer Tehsil of Jaipur District (Rajasthan). The study included three frequently used marketing channels for marketing of tomato in the study area. The comparative statement based on the observation on channel I, II, and III on a common platform indicates that when there was no involvement of market functionaries in the trading of tomato, producer get higher share approaching nearly 86.62% consumer's paid price on one side and provided a relief in the part of ultimate consumer whose cured the same quantity of at lesser price (Rs. 721.96) contrary to that involvement of wholesaler in channel - II and channel - III where the share of producer in consumer's paid price tend to decline up to 70.95% and 56.65% respectively. The marketing efficiency was highest in channel-I (6.47 %) followed by channel-II (2.44 %) and channel-III (1.31 %) This study indicates that efficient marketing involving minimum market functionaries is basic need for securing higher share of farmers (producers) in consumer's paid price.

KEYWORDS: Agriculture Marketing, Marketing Channels, Producer, Market Beneficiaries, Consumer.

Introduction

Agriculture is one of the most ancient livelihoods of a human being. It is not only the basis of bread and butter but also the pivot of financial development. It fulfils the basic needs of the society by supplying food, fodder, shelter, clothing, and medicine to them. It is also an essential source of raw materials, industrial products and consumer goods for various industries.

As per estimates by the Central Statistics Office (CSO), Agriculture and its allied sectors contributed around 15.35 % Gross Value Added (GVA, earlier referred as Gross Domestic Product) of the country at 2011-12 basic prices during 2015-16 (Government of India, 2017). It generates employment to approximately 60% of the total workforce in the country.

After independence, the Indian agriculture sector was facing several problems such as inadequate irrigation facilities, lack of knowledge about the scientific method of the farming, malpractices of landowners and money lenders, small agriculture production, infant marketing system, self-insufficiency in food grains, and low farm income. To envisage these challenges, the agriculture sector is demanding to be market-driven, more profitable, competitive, innovative and responsive to high technology and IT applications. It will be possible through effective, efficient and adequate agricultural marketing practices adopted by the Central and State Government.

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According to the National Commission on Agriculture, Agricultural Marketing is a process which starts with a decision to produce a saleable farm commodity, and it involves all the aspects of market structure or system, both functional and institutional, based on technical and economic considerations, and includes pre- and post-harvest operations viz., assembling, grading, storage, transportation and distribution.

Generally, the farmers sell their agricultural produce immediately after harvest in raw form without any processing. Since, only raw produce is marketed there arises a need for many intermediaries to operate between the producer and consumer. These intermediaries constitute a marketing channel or distribution channel. In the study area the marketing channel for marketing of tomato involved retailers, wholesalers, commission agents and private and cooperative sanghs.

The efficiency of marketing system for an agricultural produce in general is assessed by the size of the share which producer farmers get in the price paid by the ultimate consumers for a unit of the commodity. The movement of goods from producers to consumers at the lowest possible cost consistent with the provisions of the services desired by the consumer may be termed as efficient marketing. The difference between the price paid by the ultimate consumer and the price received by the producer-farmer for an equivalent quantity of farm produce exists due to the costs of various marketing functions performed in the process of movement of the produce and also due to the margins of various agencies associated in the process of marketing of the commodity.

From the literature, it is clear that the high production potential of the tomato crop affects the orderly marketing in the absence of needed infrastructures, such as transportation and storage facilities. The existing marketing institutions mop up a sizeable share of the consumer's rupee which lowering returns to the producer share. This state of affairs necessitates the study of various market channels for tomato and the price spreads in each channel so that farmers can adopt the most efficient channel for disposing of their produce. Therefore, the study was carried out to study the marketing margins and price spread among the selected channels in marketing of tomato in Jaipur district.

Materials and Methods

This chapter describes the methodologies adopted for the study under reference and covers the selection of the crop, selection of the study area, producer farmers (tomato growing farmers), market and market functionaries. In addition, the chapter also deals with the period of study, collection of data and method of analysis used. The various concepts and terms used in the study have also been discussed.

- **Selection of Crop and District**

Tomato crop was selected for the detailed study as this crop alone accounted for 26.64% (5956 hectares) of the total area and 15.66% (11957 metric tonnes) of the total production of vegetable crops in the Jaipur district of Rajasthan state during 2017-18. Jaipur was selected for the study because this district stood first in area and second in production of tomato in the state. This district accounted for 30.34 % of the total area and 19.90% of the total production of tomato in the state (Horticultural Statistics at a Glance, 2018).

The Muhana mandi located in Sanganer tehsil of Jaipur district was selected for the study. This mandi has the highest arrivals of fruits and vegetables. Moreover, Sanganer tehsil falls in the command area of this mandi, so the most of the farmers of the study area bring their produce in this mandi for sale.

- **Selection of Respondents and Marketing Channels**

A list of all the tomato growing farmers of the selected villages was prepared along with the size of their land holding. These farmers were arranged in ascending order of their size of operational holding. Finally, a sample of 270 tomato growing farmers, retailers and wholesalers was selected randomly from the different size groups in proportion to total number of farmers in each size group of land holding. On the basis of preliminary survey, following 3 marketing channels were finalized for the study.

Table 1: Marketing Channels Adopted by Selected Respondents

Channel –I	Producer – Consumer
Channel –II	Producer – Wholesaler – Consumer
Channel –III	Producer – Wholesaler – Retailer – Consumer

• **Data Collection**

For the study both primary as well as secondary data were collected from different sources during 2018-19 and 2019-20. Primary data in respect of costs and margins in marketing of tomato crop were collected from the sample farmers, wholesalers and retailers using the personal interview method with the help of schedule specifically prepared for the purpose. There were three set of respondents rendering primary data, through method of pre tested schedules. Apart from this, additional information was collected through the personal interviews with the concerned persons and Government officials. The secondary data necessary for fulfilment and completion of the investigation were collected through the various books, journals, magazines and through the internet.

• **Analysis of Data**

The marketing margins including average gross margin, percent margin and producer's share in customer's rupee were computed as follows:

▪ **Average Gross Margin (AGM)**

The average gross margin at each successive level of marketing was worked out by dividing the difference between the sale value and purchase value by the quantity of produce handled.

$$\text{Average Gross Margin} = \frac{\text{Total Sale Value} - \text{Total Purchase Value}}{\text{Quantity of Produce Handled}}$$

▪ **Absolute Margin (AM)**

Absolute margin earned by a middleman was calculated as:

$$\text{Absolute Margin} = P_{Ri} - (P_{Pi} + C_{Mi})$$

Where,

P_{Ri} = Total value of receipts per unit (sale price)

P_{Pi} = Purchase value of the commodity per unit (purchase price)

C_{Mi} = Per unit cost incurred in marketing by middlemen

▪ **Percentage Margin**

Percent margin was calculated by expressing the absolute margin as percent of selling price:

$$\text{Percent Margin} = \frac{P_{Ri} - (P_{Pi} + C_{Mi})}{P_{Ri}} * 100$$

▪ **Price Spread**

Price spread refers to the difference between the price paid by the ultimate consumer and the price received by the producer for an equivalent quantity of the farm produce. This difference exists due to the cost of various marketing functions performed in the process of movement of the produce and also due to the margins of various agencies associated in the process of marketing. The break-up of costs, margins and producer's share were worked out in the consumer's price in simple percentage terms.

$$\text{Price spread} = \text{Consumer Price} - \text{Producer Price}$$

▪ **Marketing Efficiency (ME in %)**

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

Where,

V = Value of goods sold (consumer's price)

I = Total marketing cost + margins.

The higher the ratio, the more the marketing efficiency and vice versa.

Results and Discussion

Marketing Margins and Price Spread

Price Spread refers to the difference between the price paid by the ultimate consumer and the price received by the producer-farmer for an equivalent quantity of the farm produce. This consists of marketing costs and margins of the intermediaries. The overall efficiency of marketing system is judged by the extent of the price spread. In this chapter price spread in marketing of tomato has been computed among different marketing channels.

- **Price Spread in Marketing of Tomato in Channel-I**

The break-up of the price paid by the consumers for per quintal of tomato has been presented in Table 2. Producer's net price for tomato was Rs 625.34 and the average price paid by the consumers for tomato was Rs 721.96 per quintal which also included the marketing costs incurred by the producers (Rs 96.62).

Table 2: Average Marketing Costs & Price Spread of Tomato under Channel - I

S. No.	Market functionaries	Amount (Rs./q)
1.	Marketing costs at Producer's level	
	Packing charges	42.54 (44.05)
	Transportation charges	33.26 (34.40)
	Loading & unloading charges	20.82 (21.55)
	Sub total	96.62 (100.00)
	Producer's net price	625.34
	Producer's sale price / Consumer's paid price	721.96
2.	Producer's share in consumer's rupee (%)	86.62%
3.	Price Spread	13.38%

Table 2 shows that the channel – I was the simplest marketing channel having no involvement of market intermediaries in the trading of tomato marketing as interaction was directly made between producer and ultimate consumer. It resulted in minimum cost in marketing of tomato incurred on producer. The share of producer in consumer's paid price was maximum as approaching nearly 86.62%. The price spread in this channel was 13.38% which was lowest among the selected channels. Similar results were reported by Hassanpour *et al.*, 2013 and Tripathy S., *et al.*, 2014. Baba *et al.*, 2010 also reported that the net price received by the producers is relatively higher in the channels in which the produce is directly sold to the consumers or retailers.

- **Price Spread in Marketing of Tomato in Channel-II**

In this channel, in addition to the cost borne by producers, wholesalers cost and their profit was also considered

Table 3: Average marketing costs & price spread of tomato under Channel – II

S. No.	Market Functionaries	Amount (Rs./q)
1.	Marketing costs at Producer's level	
	Packing charges	42.54 (44.05)
	Transportation charges	33.26 (34.40)
	Loading & unloading charges	20.82 (21.55)
	Sub total	96.62 (100.00)
	Producer's net price	625.34
	Producer's sale price / Consumer's paid price	721.96
2.	Cost incurred by Wholesaler's	
	Transportation charges	29.16 (51.01)
	Loading & unloading charges	18.42 (32.23)
	Shop rent charges	9.58 (16.76)
	Sub total	57.16 (100.00)
	Wholesaler's margin	102.22
	Wholesaler's sale price/Consumer's paid price	881.34
3.	Producer's share in consumer's rupee (%)	70.95 %
4.	Price Spread	29.05 %

Table 3 shows that the involvement of wholesaler between producer and ultimate consumers denoted by channel - II indicate that beside the relevant cost incurred by producer the substantive cost and margins incurred in the part of wholesaler in one side reduced the share of producer to 70.95% in ultimate consumer's paid price but given no relief in the part of ultimate consumer because the reduced share of producer ultimately went to the wholesaler resulting the expansion in paid price of consumer.

• **Price Spread in Marketing of Tomato in Channel-III**

Table 4: Average marketing costs & price spread of tomato under Channel - III

S. No.	Market functionaries	Amount (Rs./q)
1.	Marketing costs at Producer's level	
	Packing charges	42.54 (44.05)
	Transportation charges	33.26 (34.40)
	Loading & unloading charges	20.82 (21.55)
	Sub total	96.62 (100.00)
	Producer's net price	625.34
	Producer's sale price / Consumer's paid price	721.96
2.	Cost incurred by Wholesaler's	
	Transportation charges	29.16 (51.01)
	Loading & unloading charges	18.42 (32.23)
	Shop rent charges	9.58 (16.76)
	Sub total	57.16 (100.00)
	Wholesaler's margin	102.22
	Wholesaler's sale price/Consumer's paid price	881.34
3.	Cost incurred by Retailer's	
	Transportation charges	23.18 (28.89)
	Loading & unloading charges	14.14 (17.62)
	Shop rent charges	7.11 (8.86)
	Polythene bag charges	35.81 (44.63)
	Sub total	80.24 (100.00)
	Retailer's margin	142.35
	Retailer's sale price/Consumer's paid price	1103.93
4.	Producer's share in consumer's rupee (%)	56.65 %
5.	Price Spread	43.35%

Table 4 shows that the in channel – III between producer and ultimate consumer there was an involvement of wholesaler and retailer. The function of wholesaler and retailer which plays the part in searching and creation of demand of consumer charge their margin and cost incurred on various activities rendered by them. Due to these functions and involvement of marketing cost and returns margins expanded the difference in price received by producer and price paid by ultimate consumer. Thus results in the decrease of producer share to 56.65% in consumer's paid price.

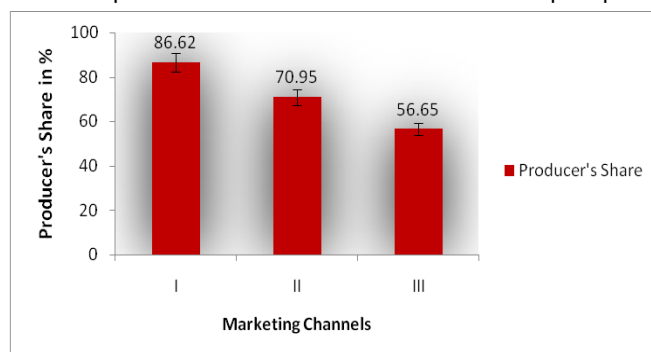


Fig. 1: Producer's Share in Different Marketing Channels

On the basis of foregoing discussion of marketing cost and margins conclusion is that as the marketing functionaries reduced the share of the producer in consumer paid price on one side and on the other side increased the consumer's paid price indicate that share of producer price tend to decline as per increase in the number of marketing functionaries (Fig.1) and compelled the consumers to pay higher prices for the same quantity of tomato without any relief.

Sharma and Dahiya, 2013 also reported that the net price received by the producers is relatively higher in the channels in which the produce is directly sold to the consumers or retailers.

Marketing Efficiency

Table 5 indicates that marketing efficiency was highest in channel- I (6.47 %) followed by channel – II (2.44 %) and channel – III (1.31 %) . It shows that marketing efficiency was in inverse relation with the total costs and margins.

Table 5: Marketing efficiency under different Marketing Channels of Tomato

Channel	Quantity Sold (q)	Consumer Price (Rs.)	Total marketing cost & margin (Rs.)	Marketing Efficiency
I	1453 (11.32)	721.96	96.62	6.47
II	2962 (23.08)	881.34	256.00	2.44
III	8415 (65.58)	1103.93	478.59	1.31

As the number of intermediaries increased, costs and margins increased and inverse was the marketing efficiency (Fig.2). Asmatoddin, *et. al.*, 2009 conducted the study on economic analysis of tomato production and marketing of tomato and observed that marketing efficiency was lowest in channel III. Arvind K. B. N. and Yenagi B. N., 2012, also observed that cost producer's share in consumer rupee was founded to decline with the involvement of number of intermediaries arise in the channel.

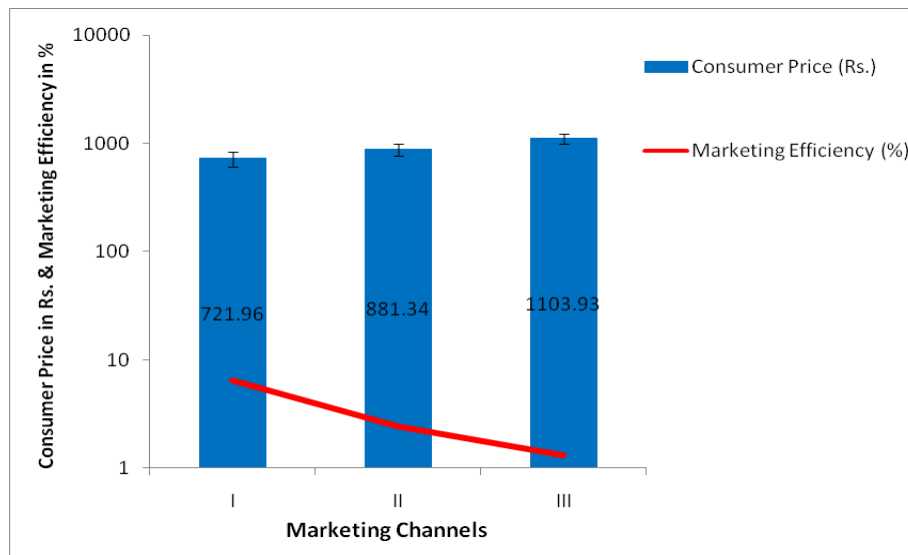


Fig. 2: Marketing Efficiency in different marketing channels

Conclusion

On the basis of above comparative statement conclusion is drawn that when there is involvement of higher number of marketing functionaries in the dealing of tomato marketing tend to decrease the producer's share in ultimate consumer's paid price on one side and forced the ultimate consumers to pay higher price for the same quantity of tomato as a consequence of incurring of various costs and margins recovered by market functionaries for their rendered services in the trading of this commodity.

Hence, it may be concluded that efficient marketing should be followed for securing higher share of producers in consumer's paid price. Proper borrowing facility and marketing information should also be followed which influence the return of this crop. Regulated market or amendment in marketing practices should be observed which unnecessarily expand the gap between producer's price and price paid by ultimate consumer.

The magnitude of costs and margins for a commodity reflects the efficiency of marketing system in general provided other things remain the same. Generally, higher the magnitude of these costs and margins, lower is the efficiency of the marketing system and vice-versa. An increase in the producer's share in consumer's rupee is considered as an evidence of increase in the efficiency of marketing system in the favour of farmer keeping the services rendered in the process at the same level. The overall efficiency of marketing system is judged by the extent of the price-spread in the process of marketing.

Acknowledgments

We are thankful to The IIS University, Jaipur for financial support and Muhana Mandi Samiti, Sanganer, for providing valuable information on marketing during the research programme.

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