AN ANALYSIS OF MARKETED SURPLUS AND PRICE SPREAD OF OKRA IN WESTERN UTTAR PRADESH

Dr Gaurav Joshi*

Abstract:

The study was undertaken to analyze marketed surplus and price spread for Okra in Western Uttar Pradesh. Cluster sampling techniques was used to select the sample villages and respondents. Primary data were collected by personal interview of respondents. Simple statistical tools were employed to accomplish different objectives of the study. The marketed surplus of the small category of farms have slightly higher surplus than large, marginal and medium categories of farms. Their relative proportion was 95.31 per cent, 94.88 per cent, 94.85 per cent and 92.76 per cent respectively of the total production. The share of producer in consumer rupee is high in channel were there are less number of intermediaries. The marketing cost incurred by wholesaler in different channels were estimated 6.92 per cent,6.98 per cent and 8.29 per cent of the consumer price respectively and their corresponding net margins were 9.76 per cent, 10.13 per cent and 12.78 per cent of the price paid by the consumer.

Keywords: Marketed Surplus, Cluster Sampling, Marketing Cost

* Assistant Professor, Vidya International School of Business, Vidya Knowledge Park, Baghpat Road, Meerut, Uttar Pradesh, India.

1. Introduction:

The production of fruits and vegetables to farmers is of crucial importance as it provides three to four times more cash income than cereals per hectare of land .The vegetable crops hold a great promise for accelerating income of the farmers. Realizing the importance of vegetable cultivation many farmers are diverting their resources towards vegetable crops. The production of vegetables being seasonal and face tremendous uncertainties on several counts. Further, vegetables are extremely perishable in nature and, therefore, require speedy and efficient marketing. This gives rise to various problems to vegetable growers. High marketing cost, quantitative and qualitative losses at various stages, high level of price spread and unpredictable behavior of prices are some problems. Low marketed surplus, market imperfections and poor infrastructural facilities add to these problems. Therefore, in the backdrop of the situation it becomes worthwhile to conduct studies on marketing of vegetables so as to identify remedial measures for better management and to earn higher returns from vegetable crops.

2. Review of Literature:

Singh *et al.* (1994) had studied the production and marketing of hill vegetables in Himachal Pradesh and found that the producers' share of tomato and pea was 43.15 and 49.96 per cent respectively in the consumers' rupee. The study found that the marketing margins of wholesalers' were less than the retailers' margin, due to the fact that the retailers were noted to bear the major burden of losses and deterioration of quality of the produce.

Thakur (1994) reported various production and marketing problems faced by vegetable growers of Himachal Pradesh while conducting a study on high stakes for banks in off-season vegetable production and marketing. The major problems faced by farmers were lack of pure quality seeds, including hybrid seeds of different vegetables, genuine micronutrients and fertilizer mixtures, pesticide, weedicides, irrigation facilities, packing materials, storage and transport facilities, vegetable processing units, reasonable and remunerative prices and sufficient crop loans at reasonable interest rates.

Singh (1997) examined the problems faced by the vegetable growers of Jabalpur district. Various marketing problems, as reported by the respondents were non-availability of fertilizers, seed insecticides were reported about 44.4 per cent of the respondents, non-availability of labour 40.00 per cent, lack of credit facilities 33.3 per cent, lack of storage facilities 48.8 per cent, problems of undue deduction in the market 40.00 per cent, lack of transportation facility 37.7 per cent and problems of low prices of the product 33.3 per cent of the respondents. The selected respondents were largely in favor of formation of co-operative marketing society for direct marketing of their vegetable produce and regulation of market for vegetables.

Chahal *et al.* (1997) examined the market structure, price spreads, marketing costs and margins overtime and space for Punjab tomatoes. The study revealed that the marketing structure had changed over time. Due to small holdings and lack of farmers' organizations, it was found that the volume of sales in the terminal market decreased and sales at local market have increased. The intra-state analysis revealed that producers' share in consumers' rupee had declined overtime whereas the net margin of intermediaries had increased; indicating that tomato marketing system in Punjab was not conducive to the interest of the producers and consumers.

Gupta and Rathore (1998) made on attempt to assess the share of different categories of farmers in vegetables marketing, the disposal pattern of vegetables, marketing cost and various constraints in the production and marketing of vegetables. They found that the market share of farmers increased with the increase in the size of holding. It was about 4 per cent, 13 per cent, 24 per cent, and 59 per cent on marginal, small, medium, and large farms respectively, of the total marketing cost.

Shelke and Kalyankar (1998) conducted a study to examine the pattern of market arrivals and prices, inter and intra year fluctuations in market arrivals and monthly wholesale prices of tomato in Parbhani district of Maharashtra. Inter year variation of market arrivals of tomato was between 22 to 62.5 per cent whereas the intra-year variation was between 17 am 66.8 per cent respectively. Arrivals and prices were negatively correlated, showing that an increase in arrivals led to reduction in price and vice-versa.

Sharan and Singh (2002) examine the pattern of sales, marketing costs and margins for kinnow in Rajasthan. They found in their study that the producer's share in consumer's rupee is more in

direct sale as compared to contract sale, due to elimination of pre-harvest contractor. Marketing cost and margin indicate that producer's share in consumer's rupee may be increased by decreasing the number of intermediaries in the existing marketing system.

3. Research Objectives:

The present study was attempted to accomplish following two objectives:

1) To estimate marketed surplus of Okra on different farms categories.

2) To determine the price spread for Okra in different farms categories.

4. Research Methodology:

The study was conducted in western region of state Uttar Pradesh. The Western region of State Uttar Pradesh is fully divided into three divisions namely Saharanpur, Meerut and Agra. All the three divisions were included in the study. A cluster of three villages was selected from each division following cluster sampling techniques. List of vegetable growers in sample village were prepared and arranged in order of area under vegetable. From each division 50 vegetable growers, spread equally in sample villages, were selected randomly to make a sample size of 150 farmers. The respondent were then classified into marginal (<1 ha.), small (1-2 ha.), medium (2-4 ha.) and large (> 4 ha.) categories as per the area under vegetable crops. Primary data were collected by personal interview following survey method approach. Simple statistical tools averages, percentage were employed to accomplish the different objectives of the study.

In order to estimate marketed surplus of Okra on different categories of farms, following formula was used:

MS=TP-TR

Where

MS = Marketed surplus

TP= Total production

TR= Total requirement (Home consumption, seed, gifts, kind payments, etc.)

The marketed surplus has been estimated as follows:

MT= MS- Loss incurred at farm during transit

Where

MT = Marketed surplus

MS= Marketable surplus

The marketing cost incurred by vegetable growers was computed by using following formula:

$C = CF + C_{mi}$

Where

C = Total Cost

CF= Cost paid by farmers

C_{mi} = Cost incurred by middle man

In order to calculate marketing margins following formula was used:

$A_{mi} = P_{Ri} - (P_{pi} + C_{mi})$

Where

A_{mi} = Absolute margin of middleman

P_{Ri} = Total value of receipts per quintal (sales price)

P_{pi} = Purchase value of goods per quintal (purchase price)

C_{mi} = Cost incurred on marketing per quintal

In order to estimate producer's share in consumer rupee following formula was used:

PS = (PF÷PR) X 100

Where,

PS = Producer's share in consumer's rupee

PF = Price received by farmer/producer per kg

PR = Retail price (consumer's price) per kg

5. Analysis and Interpretation:

Marketable and Marketed Surplus of Okra

Table 1 presents the per hectare production, marketable surplus of Okra on sampled farms in study area.

Table 1 Marketable and Marketed Surplus of Okra on Sampled Farms

Sl No.	Particular	Farm Size				
		Marginal Farms	Small Farms	Medium Farms	Large Farms	All Farms
1	Total Production	110.21 (100)	113.06 (100)	112.87 (100)	116.69 (100)	113.18 (100)
2	Utilization					
	i) Home Consumption	3.65 (3.31)	3.21 (2.84)	3.98 (5.52)	4.05 (3.47)	3.72 (3.78)
	ii) Gifts and others	0.98 (0.91)	1.02 (0.92)	0.95 (0.84)	0.84 (0.72)	0.95 (0.85)
3	Marketable Surplus	105.58 (95.78)	108.83 (96.24)	107.94 (93.64)	111.8 (95.81)	108.54 (95.37)
4	Losses	1.03 (0.93)	1.05 (0.93)	0.99 (0.88)	1.08 (0.93)	1.04 (0.92)
5	Marketed Surplus	104.55 (94.85)	107.78 (95.31)	106.95 (92.76)	110.72 (94.88)	107.5 (94.45)

Note: Figures in parentheses represents percentage of total production

Price Spread for Okra

The table indicates that the per hectare production of okra was reported 113.18 quintal on average farms is study area, but large farms have higher per hectare production of this crop (116.69 quintals) than marginal, small and medium farms. This difference in production of crop was due to the efficient utilization of farm level resources made by the large category of farms. As far as marketable surplus is concerned, more than 93 per cent of the produce on an average farm is meant for the market. Farm categories wise comparison of the marketable surplus revealed that small farms have relatively higher surplus (96.24 %) as compared to large (95.81 %), marginal (95.78 %) and medium (93.64 %) farm categories.

The following four marketing channels were identified in the study area in marketing of the okra.

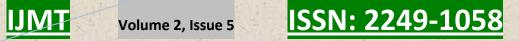Channel- I: Producer → Village traders → Commission Agents/Wholesaler → Retailer → Consumers

Channel- II: Producer → Commission agents → Wholesaler → Retailer → Consumer

Channel- III: Producer → Wholesaler → Retailer → Consumer

Channel- IV: Producer → Retailer → Consumer

The comparative analysis of marketing cost, marketing margin and producer's share in consumer's rupees of okra in Delhi market through different channels of trade has been shown in Table 2.

The table reveals that producer receives maximum price, that is, Rs 1008.51 per quintal from channel-II and followed by channels- III and I with Rs 934.62 and Rs. 860.65 per quintal respectively for their produce, which accounted 54.23 per cent, 50.26 per cent and 46.29 per cent of the consumer price respectively. The total marketing cost paid by the producer formed 6.86 per cent, 11.59 per cent and 11.70 per cent of the consumer price for channels- I, II and III respectively. Further perusal of the table indicates that the marketing cost incurred by wholesaler was highest in channel-III (Rs. 154.15) followed by channel-II (Rs. 129.63) and channel- I (Rs 128.65) and the respective margin of the wholesaler was Rs 237.63, Rs. 188.30 and Rs. 181.46 per quintal in the study area. The retailer marketing cost and net margin worked out to be Rs. 87.02 and Rs. 247.14, which accounted 4.68 per cent and 13.29 per cent respectively of consumer price. The study shows that the producer's those who opting for channel –II have

highest producer share in consumer rupee (54.23 %), which clearly shows that channel-II is the most efficient channel of marketing of okra in the study area.

Table 2 Marketing Cost, Margin and Producer's Share in Consumer rupees of Okra in Delhi Market through Different Channel of Trade

Sl. No.	Particular	Channel –I	Channel-II	Channel-III
1.	Net Price Received by the Farmer	860.65 (46.29)	1008.51 (54.23)	934.62 (50.26)
2.	Marketing Cost Incurred by Framer	127.60 (6.86)	215.28 (11.59)	217.49 (11.70)
3.	Village Trader's Purchase Price	988.68 (53.17)	-	-
4.	Marketing Cost Incurred by Village Trader's	166.50 (8.97)	-	-
5.	Net Margin of Village Trader's	96.85 (5.21)	-	-
6.	Wholesaler's Purchase Price	1252.56 (67.35)	1224.15 (65.82)	1152.42 (61.96)
7.	Marketing Cost Incurred by Wholesaler's	128.65 (6.92)	129.63 (6.98)	154.15 (8.29)
8.	Net Margin of Wholesaler's	181.46 (9.76)	188.30 (10.13)	237.63 (12.78)
9.	Retailer's Purchase Price	1544.21 (83.03)	1544.21 (83.03)	1544.21 (83.03)

10.	Marketing Cost Incurred by Retailer's	87.02 (4.68)	87.02 (4.68)	87.02 (4.68)
11.	Net Margin of Retailers	247.14 (13.29)	247.14 (13.29)	247.14 (13.29)
12.	Consumer's Price	1860 (100)	1860 (100)	1860 (100)
	Producer's Share in Consumer rupee (in %)	46.29	54.23	50.26

Note: Figure in parentheses represents percentage of consumer price in market

6. Major Findings of the Study:

The per hectare production of okra was reported 113.18 quintal on average farms is study area, but large farms have higher per hectare production of this crop (116.69 quintals) than marginal, small and medium farms. This difference in production of crop was due to the efficient utilization of farm level resources made by the large category of farms. As far as marketable surplus is concerned, more than 93 per cent of the produce on an average farm is meant for the market. Farm categories wise comparison of the marketable surplus revealed that small farms have relatively higher surplus (96.24 %) as compared to large (95.81 %), marginal (95.78 %) and medium (93.64 %) farm categories.

It was observed that in case of okra all four marketing channel used by the farmers in the study area for routed their produce into markets. Among the four marketing channels, Channel- II is the main dominating channel followed by the producer for marketing of okra, accounting 71.18 per cent of the total marketed surplus on average farms. Through channel –III, I and IV only 12.90 per cent, 12.82 per cent and 3.1 per cent respective share of total marketed surplus of okra was distributed in different market.

It was found producer receives maximum price, that is, Rs 1008.51 per quintal from channel-II and followed by channels- III and I with Rs 934.62 and Rs. 860.65 per quintal respectively for their produce, which accounted 54.23 per cent, 50.26 per cent and 46.29 per cent of the

consumer price respectively in case of okra. The total marketing cost paid by the producer formed 6.86 per cent, 11.59 per cent and 11.70 per cent of the consumer price for channels- I, II and III respectively. Further perusal of the table indicates that the marketing cost incurred by wholesaler was highest in channel-III (Rs. 154.15) followed by channel-II (Rs. 129.63) and channel- I (Rs 128.65) and the respective margin of the wholesaler was Rs 237.63, Rs. 188.30 and Rs. 181.46 per quintal in the study area. The retailer marketing cost and net margin worked out to be Rs. 87.02 and Rs. 247.14, which accounted 4.68 per cent and 13.29 per cent respectively of consumer price. The study shows that the producer's those who opting for channel –II have highest producer share in consumer rupee (54.23 per cent), which clearly shows that channel-II is the most efficient channel of marketing of okra in the study area.

7. <u>Limitations of the Study:</u>

The present study suffers from the following limitations:

1. The study was based on data collected for one year crop only (that is, crop year 2009-10), which may not necessarily holds true for other period as well. To take the case of seasonal variation data should have been for three years at least.

2. The data used here are collected by survey method through personal interview, face-to-face association with farm respondents and observation method at a single point of time. The fresh produce farmers hardly maintain any record of output, input used and money spends on different farm operation and on purchase packing material etc. Although, every efforts has been made to extract correct and accurate information yet possibilities of some false information on the part of respondent could not be ruled out.

8. <u>Conclusion:</u>

The per hectare production of okra was reported 113.18 quintal on average farms is study area, but large farms have higher per hectare production of this crop (116.69 quintals) than marginal, small and medium farms. This difference in production of crop was due to the efficient utilization of farm level resources made by the large category of farms. As far as marketable

surplus is concerned, more than 93 per cent of the produce on an average farm is meant for the market.

There are four main prevailing channels of marketing via which maximum marketed surplus were disposed in study area. Among the four marketing channels, Channel- II is the main dominating channel followed by the producer for marketing of okra, accounting 71.18 per cent of the total marketed surplus on average farms. Through channel –III, I and IV only 12.90 per cent, 12.82 per cent and 3.1 per cent respective share of total marketed surplus of okra was distributed in different market.

9. Future Work:

The study is confined only in Western Uttar Pradesh so there is a scope of doing same research in other areas to know the marketed surplus and price spread of okra.

References:

- Chahal, S.S.; Mann, G.S.; and Singh, B. 1997. Marketing of Tomato: Temporal and Spatial Analyses, Indian Journal of Agricultural Marketing, 40 (2), pp. 32-37.

- Chauhan R. S. and Singh J. N. (1998). Vegetable Marketing Systems in Azamgarh district of U.P. Indian Journal of Agricultural Economics 53 (3): 413.

- Gupta S. P. and Rathere N. S. (1998). Marketing of Vegetables in Raipur District of Chhattisgarh State. An Economic Analysis. Indian Journal of Agricultural Economics 53 (3): 393.

- Gupta, S.P. and Rathor, N.S. 1998. Marketing of Vegetables in Raipur District of Chhattisgarh State: An Economic Analysis, Indian Journal of Agriculture Economics, 55 (3), p. 393.

- Kasar D. V., Ambre B. S., Raut, R. C. and Rasane V. S. (1994). Marketing of Bitter gourd in Ahmednagar district of Maharashtra. Indian Journal of Agricultural Marketing 8 (2): 246–249.

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories
Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage, India as well as in Cabell's Directories of Publishing Opportunities, U.S.A.
International Journal of Marketing and Technology
http://www.ijmra.us

184

- Kohli, U.K. 2000. Off-season Vegetable Production: Perspective and Strategies, L.R. Verma (ed.), Natural Resources and Development in Himalya, Malhotra Publishing House, New Delhi, pp. 184-208.

- Parmar, G.D.; Khunt, K. A.; and Desai, D.R. 1994. Marketing of Vegetables in South Gujarat, Indian Journal of Agricultural Marketing, 8 (2), pp. 258-263.

- Prasad, A. 1993. Vegetable Marketing: A Case Study of two Agricultural Markets of Bihar, the Bihar Journal of Agriculture Marketing, 2 (2).

- Sharan, S.P. and Singh, V.K. 2002. Marketing of Kinnow in Rajasthan, Indian Journal of Agricultural Marketing, XLV (3), pp. 2-4.

- Shelke, R.D. and Kalyankar S.P. 1998. Pattern of Market Arrivals and Prices of Tomato in Parbhani District of Maharashtra State, Indian Journal of Agricultural Economics, 53 (3), p.423.

- Shiyani, R. L. Kuchhadiya, D. B. and Patat M. V. (1980). Marketing of vegetables in South Saurashtra Zone of Maharashtra. Indian Journal of Agricultural Marketing 12 (1 & 2): 156–160.

- Singh, M. K. 1997. Economics of Production and Marketing of Vegetables : A Case Study of Patan Block of Jabalpur District, Indian Journal of Agricultural Marketing, 40 (2), pp. 18-20.

- Singh, R.; Sharma, T.R.; and Sharma, K. 1994. Production and Marketing of Hill Vegetables: A Study of Himachal Pradesh, Indian Journal of Agricultural Marketing 37 (2), pp. 23-28.

- Singh, R.; Sharma, T.R.; and Sharma, K. 1994. Production and Marketing of Hill Vegetables: A Study of Himachal Pradesh, Indian Journal of Agricultural Marketing 37 (2), pp. 23-28.

- Thakur, D.S., 1994. Highstakes for Banks in Off-season Vegetables Production and Marketing, Bihar Journal of Marketing, 2 (1), pp. 89-95.

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories
Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage, India as well as in Cabell's Directories of Publishing Opportunities, U.S.A.

International Journal of Marketing and Technology
http://www.ijmra.us

185