An Economic Analysis of Tuberose Marketing from Akola District, Maharashtra, India

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

The present study was conducted in Akola district of Maharashtra state for the period 2018-19. For the study of marketing data was collected from 10 village traders, 10 wholesalers and 10 retailers, thus overall 30 trader were selected randomly about price spread, labour charges, transportation costs, commission charges, other charges if any and also the price received by them during the year 2018-2019 based on primary data. In tuberose marketing channel, producer, wholesalers and retailer were selected for collecting the information on marketing. Producer – wholesaler – Retailer – Consumer was the important channel through which maximum quantity was sold by the cultivators. In case of tuberose, the producer's share in consumer's rupee was highest in channel-I i.e., 96.31 per cent. The channel-I was most profitable than channel II and channel III. The price spread was observed highest in case of channel III i.e., Rs 17.40. The major constraints faced by

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tuberose cultivators overall level was Low rate of flower in the market, High commission charges, Lack of organized market and transportation.

Keywords: Marketing analysis; Poliasnthes tuberosa L.; oils extracted; production.

1. INTRODUCTION

"Tuberose (*Poliasnthes tuberosa L.*), native to Mexico and a relative of the century plant (Agave), has long been cherished for the aromatic oils extracted from its fragrant white flowers. It is also a popular cut flower, not only for use in arrangements, but also for the individual florets that can provide fragrance to bouquets and boutonnieres. Because of this popularity, a number of countries including Kenya, India, and Mexico are growing tuberose commercially for export markets in the USA, Europe and Japan" (Michael, 1996).

"In India, single flowered type of the tuberose (white) is used for commercial cultivation. The major states producing tuberose are West Bengal, Karnataka, Tamil Nadu, and Maharashtra" (Amarnath JS et. al.) [1]. "The area under tuberose in India was 1.49 lakh hectares and production of loose flower was 106.49 mt and cut flower was 89.82 lakh no. (Ministry of Agriculture and Farmers Welfare. Govt. Of India 2016-17). Maharashtra is one of the progressive state cultivation of tuberose in India. Maharashtra occupies important place in floriculture industry. In Maharashtra tuberose is mainly concentrated in the districts of Pune, Nashik, Akola, Ahmednagar etc, having the total area of about 1850 ha. With a total production of about 29.12 mt in the state". (Director of Horticulture, Pune 2016-17).

The prospenty of the cultivators depends not only upon the increased rate of production but also on the method and efficiency with which they dispose off their produce to their great advantages. The efforts of large production are unfruitful until the produce is marketed efficiently in better markets. India has a tremendous potential for agricultural production. However, marketing is the biggest problem. The Royal commission on Agriculture had rightly remarked that, "The Indian farmer is a good producer but a bad marketer".

2. METHODOLOGY

2.1 Data Collection

The present study was conducted in Akola district of Maharashtra state for the period 2018-19. For the study of marketing data was collected from farmers, wholesalers and retailers about price spread, labour charges, transportation costs, commission charges, other charges if any and also the price received by them. The respondents from each market functionaries such as commission agents, wholesalers and retailers were selected randomly. The 10 village traders, 10 wholesalers and 10 retailers, thus overall 30 trader were selected randomly for the study. The middlemen and retailers were personally interviewed to obtain marketing information.

2.2 Analytical Tools

2.2.1 Marketing cost

Cost of marketing refers to the amount spent by the producer, seller and intermediaries in the sale or purchase of commodity from the time of harvest till it is finally sold to the ultimate consumer.

2.2.2 Market margin

It refers to difference between the prices prevailing as successive stages of marketing at given period of time.

2.2.3 Price Spread (PS)

This represents the difference between the net price received by the producer- seller (PNP) and the price paid by the ultimate consumer i.e., difference between Producer's Net Price (PNP) and Retailer Selling Price (RP).

$$PS = RP - PNP$$

2.2.4 Producer Share in Consumer's Rupee (PSCR)

It is the percentage of the net price received by the producer to the price paid by the consumer or selling price of retailer.

Ps = Net price received by the producer (Pf) / Price paid by consumer (Pc) * 100

2.2.5 Constraints analysis

The information related to different types of problem faced by the tuberose cultivators in the production and marketing was collected, compiled and the frequencies and percentages were worked out.

3. RESULTS AND DISCUSSIONS

3.1 Marketing of Tuberose in Akola Districts

The detail of economic aspects *viz:,* costs, returns and the efficiency of investment in the production of tuberose crop selected for study has been discussed. But the process of production is not completed till the product reaches in to the hands of final consumer. As such various aspects pertaining to marketing of tuberose crop viz., channels of distribution, price spread, producer's share in consumers rupee etc. have been studied and discussed.

3.1.1 Marketing channels

The chain of intermediaries through which the various farm commodities pass between producers to consumers is called as marketing channels. These are three marketing channel was observed in the study area:

Channel (I) : Producer → Consumer
Channel (II) : Producer → Retailer → Consumer
Channel (III) : Producer → Wholesaler → Retailer → Consumer

3.1.2 Marketing cost of tuberose

The marketing charges paid by the Tuberose flower producer to the agents for different operations in Channel wise. The cost of marketing of tuberose was estimated and presented in Table 1.

Table 1. Cost of marketing of tuberose (Rs/kg)

Sr. No.	Particulars	Total Price		
		Channel I	Channel II	Channel III
A	**Marketing cost incurred by producer**			
1	Packing Cost	0.94	1.22	1.59
2	Cost of Loading	0.09	0.09	0.10
3	Transportation	0.66	1.37	1.96
4	Weighing charges	0.02	0.02	0.04
5	Hamali	-	-	0.36
6	Dalali	-	-	5.10
7	Unloading	0.09	0.11	-
	Sub Total	1.80	2.81	9.15
	Selling Price of Producer	48.78	49.93	51.02
B	**Marketing cost incurred by Wholesaler**			
1	Gunny bag	-	-	0.38
2	Hamali	-	-	0.33
3	Weighing charges	-	-	0.03
4	Cess fund	-	-	0.20
	Sub Total	-	-	0.94
	Selling price of Wholesaler	-	-	53.23
C	**Marketing cost incurred by Retailer**			
1	Transportation	-	1.22	0.87
2	Loading & Unloading	-	0.56	0.42
3	Shop rent	-	1.25	1.33
4	Weighing charges	-	0.20	0.21
	Sub Total	-	3.23	2.83
	Selling Price of retailer / Purchase price of consumer	**48.78**	57.34	59.27

Table 1 revealed that, out of three marketing channel, producer incurred lowest marketing cost of Rs.1.80 in channels I, followed by Rs. 2.81 in channel II and Rs. 9.15 in channel III. Among the different items of expenditure the highest charge was paid for packing cost Rs.0.94 in channel I, Rs.1.22 in channel II and Rs.1.59 in channel III. The selling price of producer was Rs.48.78 in channel I, Rs.49.93 in channel II and Rs.51.02 in channel III. In channel III, the marketing cost incurred by producer was Rs.9.15 and the marketing cost incurred by wholesaler and retailer was Rs.0.94 and Rs.2.83, respectively. The marketing cost of retailer in channel II was Rs.3.23. Among the different items of expenditure the highest charge was paid by retailer for shop rent RS.1.25 in channel II and Rs.1.33 in channel III. Bera [2] and Bhegde [3] also noticed the same results in their study.

3.1.3 Marketing cost and Price spread

The difference between price paid by consumer and price received by producers is price spread and the share goes to the different functionaries in the market is marketing margin of commodities. The price spread and marketing margin is worked out with use of theoretical concept and presented in Table 2.

Table 2 revealed that, the price received by tuberose producer was Rs.48.78, Rs.49.93, Rs.51.02 in channel-I, II and III, respectively. Net price received by tuberose producers was Rs.46.98 in channel-I, Rs.47.12 in channel-II and Rs.41.87 per kg in channel-III. Marketing cost incurred by producers was 3.69 per cent in Channel-I and 4.90 per cent in Channel-II and

Table 2. Channel wise price spread of tuberose (Rs/kg)

Sr. No.	Particulars	Total Price		
		Channel I	Channel II	Channel III
A)	**Producer**			
1	Gross Price received by Producer	48.78 (100.00)	49.93 (87.08)	51.02 (86.08)
2	Marketing cost incurred	1.80 (3.69)	2.81 (4.90)	9.15 (15.44)
3	Net Price received by Producer	46.98 (96.31)	47.12 (82.18)	41.87 (70.64)
B)	**Wholesaler**			
1	Purchase price	−	−	51.02 (86.08)
2	Marketing cost incurred	−	−	0.94 (1.59)
3	Net Margin	−	−	1.27 (2.14)
4	Selling price	−	−	53.23 (89.81)
C)	**Retailor**			
1	Purchase price	−	49.93 (87.08)	53.23 (89.81)
2	Marketing cost incurred	−	3.23 (5.63)	2.83 (4.77)
3	Net Margin	−	4.18 (7.29)	3.21 (5.42)
4	Selling price	−	57.34 (100.00)	59.27 (100.00)
D)	**Consumer**			
1	Purchase price	48.78	57.34	59.27
2	Net price received by producer	46.98	47.12	41.87
3	**Price spread**	1.80	10.22	17.40
4	**Producer's share in consumer Rs.**	96.31	82.18	70.64

Table 3. Problems faced by growers in production and marketing of Tuberose

Sr. No.	Particulars	Land holding size			
		Small	**Medium**	**Large**	**Overall**
A)	**Problems in marketing of Tuberose**				
7	Inadequate storage facilities	17 (37.78)	12 (40.00)	4 (26.67)	33 (36.67)
8	Lack of organized market	41 (91.11)	22 (73.33)	12 (80.00)	75 (83.33)
9	Transportation	36 (80.00)	23 (76.67)	10 (66.67)	72 (80.00)
10	High commission charges	42 (93.33)	25 (83.33)	8 (53.33)	75 (83.33)
11	Low rate of flower in the market	40 (88.89)	28 (93.33)	8 (53.33)	82 (91.11)
	Total	45 (100.00)	30 (100.00)	15 (100.00)	90 (100.00)

15.44 per cent in channel-III. The per cent of marketing cost by tuberose producer in Channel-I was comparatively less than that of Channel-II and channel-III. Also noticed the same results in their study [4,1,5,6,2]. The sold out tuberose by farmers was ultimately reached to the consumers through different market functionaries and consumers paid the price of Rs/kg 48.78, Rs/kg 57.34 and Rs/kg 59.57 in channel-I and Channel-II and channel-III. The marketing margins 7.29 per cent and marketing cost 5.63 per cent noticed in channel-II on consumer price. Whereas in channel-III retailer had on margin 5.42 per cent and marketing cost 4.77 per cent on consumer rupee. The price spread was noticed Rs.1.80 per kg in channel I, Rs.10.22 per kg in channel II and Rs.17.40 per kg in channel III. As per these result show that highest price spread in channel III. The result obtained in close agreement with the finding of Shinde K. B. [7] and Hussain A *et. al* [8].

3.1.4 Producer's share in consumer rupee

Table 2 showed that the price paid by consumers for per kilogram of tuberose was Rs.48.78, Rs.57.34 and Rs.59.27 in Channel-I, II and III. Producer's share in consumer rupee was 96.31 per cent, 82.18 per cent and 70.64 per cent in Channel-I, II and III of the tuberose [8,9,10,7]. On the basis of above results the hypothesis that large marketing channels reduced producer's share in consumer rupee but not low as per hypothesis hence the hypothesis is rejected here.

There was a wide gap between the price paid by consumers and price received by the producers. A major part of it was swallowed by the middlemen operating in the tuberose trade. The middlemen share can be reduced by eliminating some of these middlemen and bringing the consumer closer to producer. This would also raise the producers share in consumer's rupee.

3.1.5 Problems in production and marketing of Tuberose

The entire selected tuberose growers were interviewed for the problem they are facing production and marketing of tuberose. The information regarding the important problem faced by the grower is presented in Table 3.

It is observed from Table 3 that, the low rate of flower in the market was the major problem which was expressed by 91.11 per cent farmers in overall level. It was observed that 83.33 per cent farmer faced high commission charges and lack of organized market and 36.67 per cent farmer faced inadequate storage facilities. Bhegde [3], Swapna B [11] and Shinde [7] also noticed the same results in their study.

4. CONCLUSIONS

1. The marketing channel and price spread analysis in the present study identified three different marketing channels in tuberose. Price spread analysis indicated that channel I was found to have highest net price received by the producer and lowest price spread when compared to the other two channels. In case of tuberose, the producer's share in consumer's rupee was highest in channel I 96.31 per cent, followed by channel II 82.18 per cent and channel III 70.64 per cent. The middlemen share can be reduced by eliminating some of these middlemen and bringing the consumer closer to producer. This would also raise the producers share in consumer's rupee. The major constraints faced by tuberose cultivators overall level was Low rate of flower in the market (91.11%), High commission charges (83.33%), Lack of organized market (83.33%) and transportation (80.00%).
2. According to the findings of the study, existing marketing is a problem; it is

necessary to lower the marketing margin of intermediaries by building a well-communicated cooperative marketing system. The farmers and intermediaries who had recognized their specific issues also made recommendations for improving the overall efficiency of the current tuberose production and marketing system.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Amarnath JS, Tamil Vendhan K. An economic analysis of cut flower marketing in Tamil Nadu. Economic Affairs. 2017:62 (4):621-631.
2. Bera J. Economics of tuberose cultivation and its marketing - A case study in Purba Medinipur District of West Bengal, Vidyasagar University J. of Econ. 2012-13;17:0975-8003.
3. Bhegde SN. Economic analysis of production and marketing of selected cut flowers grown under small sized polyhouses in Pune district'. M.Sc. (Agri.) thesis submitted to M.P.K.V., Rahuri; 2002.
4. Ara H, Hosen M. Exploring the floral marketing practices: An investigation of the retail floral traders of Bangladesh. European J. of Business and Management. 2017;9(8):2222-2839.
5. Babarabie M, Zarei H, Danyaei A, Alipoor M. A study on consumer's awareness and practices from the cut flowers during their vase life (a case of Gorgan city), J. Of horticulture and Postharvest Research. 2019;2:27-38.
6. Balamurugan L, Jyothi KT, Rajkumar CS. Production, post harvest handling and marketing of cut-flowers in Tamil Nadu. International J. Of Recent Scientific Research. 2014;5(11):2117-2122.
7. Shinde KB.. Economics of production and marketing of tuberose in Pune District. Mahatma Phule Krishi Vidyapeeth, Rahuri, Maharashtra; 2004.
8. Hussain A, Khan A, Jehanzeb. The marketing and Cost-Benefit analysis of floriculture in the rural areas of Peshawar: A case study of Bazid Khel. City University Research J. 2015;05(05).
9. Kolambkar RA, Suryawanshi RR, Shinde HR, Deshmukh KV. A study on marketing of marigold in western Maharastra. Internat. Res. J. Agril. Eco. & Stat. 2014;5 (2):143-147.
10. Kumar A, Verma SC, Chaurasia S, Saxena SB. Production and marketing of marigold flowers in Uttar Pradesh with special reference to kannauj district. HortFlora Research Spectrum. 2013;2(3):220-224: 2250-2823.
11. Swapna B. Cultivation and marketing of tuberose (Lily) Flowers by the rural poor: An approach of SWOT analysis. International J. of Agril. Environment and Biotechnology. 2018; 11(1):137-140.