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An economic analysis of cut flower marketing in Jabalpur district of Madhya Pradesh

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Abstract
An economic analysis of cut flower marketing was taken up in Jabalpur district of Madhya Pradesh A sample of 8 cut flowers polyhouse established in four blocks of Jabalpur was selected purposively. The required primary data were collected by survey method and personal interview of selected sample respondent using pretested interview schedule. Marketing cost, marketing margins, price spread and opinion ranking technique etc were employed to analyze the collected data. There are three marketing channels prevalent for cut flower marketing in the study area. (Channel I) covers Producer – consumer, (Channel II) Producer – wholesaler – retailer consumer and (Channel III) Producer– commission agent – retailer – consumer. Respondents retained meager quantum of production for their own consumption and major production was marketed and marketable surplus. Major portion of produce was disposed off through channel III because producer gets maximum of gerbera and rose price per bag in channel III i.e. Rs 680 and Rs 710. Price spread ranged between Rs 190 to Rs 300 in gerbera and Rs 180 to 340 in rose. Producer share in consumer price was 76.2, 66.6 and 69.3% in respectively channel I to channel III. Huge investment requirement, Shortage of trained manpower, Price fluctuation, cold storage facilities were the important production and marketing constraints reported by sample respondents. These constraints should be minimized to augment production and profit of cut flower growers in the study area.

Keywords: marketing channel, marketing cost, marketing margin, price spread, marketing efficiency

Introduction
Floriculture is an age old farming activity in India having immense potential for generating self-employment among small and marginal farmers. The country is in the process of accelerating the development of its economy through industrialization on the basis of self reliance. This will create employment opportunities and improve the welfare of million of people as well as increase production quantitative and qualitatively to meet offer strong investment opportunities especially for floriculture crop [5]. In the recent years it has emerged as a profitable agri-business in India and worldwide as improved standards of living and growing consciousness among the citizens across the globe to live in environment friendly atmosphere has led to an increase in the demand of floriculture products in the developed as well as in the developing countries worldwide. Owing to steady increase in demand of flower floriculture has become one of the important Commercial trades in Agriculture. As far as the productivity is concerned, there has been a lot of scope for the increase in the productivity and profit through the adoption of the latest improved production and marketing technologies.
In India, About 250 thousand hectares area was under Cultivation in floriculture in 2015-16. Productions of flowers are estimated to be 1658 thousand tonnes loose flowers and 484 thousand tonnes cut flowers in 2015-16. In India exported 19726.57 MT of floriculture products to the world for the worth of Rs. 571.38 Crores in 2018-19. (APEDA), the present study was undertaken to address problems in the marketing of the cut flower crops Jabalpur district of Madhya Pradesh and to elicit the possibilities and potentialities for improving the marketing of the cut flowers in the region.

Scope of the study
Floriculture in India comprises both traditional and modern flower crops. Most traditional flowers are grown in open fields while modern flowers are grown under protected conditions. A large number of small and marginal farmers as well as small traders (forming the unorganized sector) are seeking out a living in the sector compared to hi-tech floriculture. For instance, roses (as cut flowers) are also grown by small and marginal farmers under open conditions, while traditional flowers like chrysanthemum are grown by large growers under poly-house conditions. The chief flowers grown under greenhouse conditions are rose, gerbera, carnation. The present study is focused on the marketing practices of flower in Jabalpur district of Madhya Pradesh [4].

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Methods and Materials

The study was conducted in the Hosur Taluk of Krishnagiri district in Tamil Nadu. This area deals about the material and methodology followed in conducting the research under the following sub headings [3].

Choice of study area

The Present study is confined to Jabalpur district of Madhya Pradesh. This comprises seven blocks viz. Jabalpur, Panager, Shahpura, Patan, Majholi and Kundam. Four blocks namely Jabalpur, Panager, Shahpura and Kundam where Polyhouses are established were selected purposively. All eight active farmers were considered for this investigation in order to fulfill the stated objective. The intermediaries such as wholesalers, commission agents operating at Jabalpur flower market and the flower retailers operating at Jabalpur were list and 10 intermediaries from each category were also selected.

Price spread analysis

The cost of marketing included grading and packing, transport, loading and unloading, storage and other incidental expenses incurred for marketing the produce. Data on profits of the various market functionaries involved in moving the produce from the initial point of production till it reached the ultimate consumer were collected. In this study, the sum-of-average gross margin method was used in the estimation of the price spread [1].

a) Market margin- Sum-of-Average gross margin method the average gross margins of all the intermediaries were added to obtain the total marketing margin as well as the breakup of the consumers' rupee.

$$MT = \sum_{i=1}^{n} Si - Pi/Qi$$

Where, MT = Total Marketing Margin
S_i = Sale value of a product for i^{th} intermediary
P_i = Purchase value paid by the ith intermediary
Q_i = Quantity of the product handled by the ith intermediary
i = 1, 2, 3 … N (Number of intermediaries involved)

b) Farmer's share in consumer rupee- the Farmer's share in the consumer rupee was calculated with the help of the following formula:

$$Fs = (F_p/C_p) \times 100$$

Where, Fs = Farmer's share in consumer rupee (percentage)
F_p = Farmers' price
C_p = consumers' price

c) Price spread = Price paid by consumer - Price received by producer

d) Producer share in consumer rupee

$$Producer\ share = \frac{Price\ received\ by\ producer}{Price\ paid\ by\ the\ consumer} \times 100$$

Results and Discussion

a) Marketing of rose and gerbera

Flower marketing channels in the study areas were small and simple. There are three flower marketing channels identified in the study area.

Channel I

Producer → Retailer → Consumer

Channel II

Producer → Wholesaler →Retailer → Consumer

Channel III

Producer → Commission Agent → Retailer → Consumer

Table 1: Marketable surplus of Gerbera and Rose (Rs/1200m^2)

S. No.	Particulars	Gerbera		Rose	
1.	Total Production	409288	2046	332000	1661
2.	Retentions	2400	12	2600	13
3.	Marketed surplus	406888	2034	329500	1648

This table shows that, all the quantity produced by farmers were not sold in the market because there was no proper care and handling. In gerbera production about 2400 flowers out of 409288 flowers were deteriorated and others were marketed. In rose, out of 332000 flowers 329500 were marketed others were deteriorated.

Table 2: Marketing cost and margin at different marketing channel of Gerbera and Rose (Per bag)

S. No.	Perticulars	Gerbera			Rose		
		Channel I	Channel II	Channel III	Channel I	Channel II	Channel III
1.	Grading and packaging charges	16.64(2.1)	20.17(2.4)	20.54(2.0)	21.42(2.6)	20.42(2.4)	20.54(2.0)
2.	Packing material cost	23.52(3)	24.56(2.8)	21.67(2.0)	18.25(2.2)	24.54(2.8)	21.67(2.0)
3.	Transport charges	21.5(2.7)	28.45(3.3)	19.34(1.9)	22.53(2.8)	26.45(3.1)	20.61(2.0)
4.	Commission agent charge	-	-	36.3(3.7)	-	-	35.22(3.3)
5.	Net price received by producer	610(76.2)	580(66.6)	680(69.3)	620.00(80)	570.0(67)	710.1(67.6)
6.	Expenses incurred by producer on Marketing	61.65(7.7)	73.18(8.5)	97.85(10)	62.20(7.7)	71.41(80.4)	98.04(9.3)
7.	Commission agent price	-	-	777.8 (80)	-	-	808.2(77)
8.	Marketing cost of commission Agent	-	-	32.21 (3.2)	-	-	38.5(3.6)
9.	Margin of commission agent	-	-	47.24(4.8)	-	-	81.81(7.8)
10.	Purchase price of wholesaler	-	653.18(75.0)	-	-	641.4(75.0)	-
11	Marketing cost of wholesaler	-	46.26(5.28)	-	-	42.0(4.2)	-
12.	Margin of wholesaler	-	68.64(7.88)	-	-	61.54(6.15)	-
13.	Purchase price of retailer	671.6(83.8)	768(88.2)	857.3(87)	682.2(87.8)	744.95(85.3)	928(88.3)
14.	Marketing cost of retailer	46.00(5.75)	42.00(4.94)	46.42(4.7)	46.85(4.6)	42.84(5.28)	45.75(4.3)
15.	Margin of retailer	82.07(10.2)	60.18(7.0)	76.1(7.6)	71(7.6)	62.21(9.32)	75.75(7.2)
16.	Consumer's price	800.00(100)	870(100)	980(100)	800(100)	850(100)	1050(100)
	Price Spread	190	290	300	180	280	340

Table 2 reveals that marketing cost in gerbera was observed to be higher under channel III (Rs 175.83 /bag) than channel II (Rs 161.44/bag) and channel I (Rs 97.58/bag). Thus it could be concluded that as the length of marketing channels increases the price spread ought to be more. Regarding producer share in consumer's rupee, it was highest in channel I (76.2%) followed by channel III (69.3%) and channel II (66.6%). It is calculated that channel III is more remunerative in which the producer received Rs 680 /bag as net saving followed by channel I (Rs 610/bag) and channel II (Rs. 580/bag). Channel II was least profitable for producer, so they should avoid selling their produce at that channel.

In Rose, reveals that marketing cost observed to be higher under channel III (Rs 182.30 /bag) than channel II (Rs 165.25/bag) and channel I (Rs 62.20/bag). The producer share in consumer price was found highest in channel I (80%) followed by in channel II (67%) and channel III (68%). It is clear from the above finding that channel III is more remunerative in which the producer net profit was more (Rs 710/bag), followed by channel I (Rs 620/bag) and channel II

(Rs 570/bag). Channel II is the least profitable for producer, so they should avoid this channel.

Bhosale et al. (2011) [2] revealed that marketing cost incurred by producer is observed that the marketing cost per box (400 flowers) of gerbera was worked out to Rs. 181.03 for channel I (Producer-Wholesaler - Florist-Consumer) and Rs. 309.50 for channel II(Producer-Florist-Consumer). It was high because of heavy charges by commission agent followed by transport and packing material [2].

Waghmare et al. (2019) [6] revealed that marketing efficiency of Channel-I (Producer – Commission Agent- Wholesaler- Retailer- Consumer) was found to be 0.27, while that of Channel-II (Producer – Exporter Wholesaler- Retailer- Consumer) was 0.36 and Channel-III (Producer – Importer Wholesaler- Retailer- Consumer) was 0.38. The Channel-III was most efficient as compared to other two channels. Channel-I was mainly used for disposal of produce to Pune and Mumbai market; while Channel-II and Channel-III were used for export of produce. In export, Channel-III proved to be more efficient, but the producers commonly using Channel-II due to simplicity [6].

Table 3: Producer marketing cost and total return in different Channels in Gerbera

S. No.	Perticulars	Gerbera			Rose		
		Channel I	Channel II	Channel III	Channel I	Channel II	Channel III
1.	Producers marketing charge(per beg)	61.65	73.65	97.55	62.2	71.41	98.04
2.	Bags marketed through deferent channel	411	308	1336	362	263	1021
3.	Producer Marketing Cost in different Channels	25338	22684	130326	22516	18780	100098
4.	Price received by producer (per bag)	610	580	680	620	570	710
5.	Per flower price	3.05	2.90	3.40	3.1	2.85	3.55
6.	Return in channels	250710	178640	908480	224440	149910	724910

This table shows Gerbera producer marketing charges in different marketing channels per bag. In channel III marketing costs of producer is Rs 97.55/bag, followed by channel II Rs 73.65 /bag and then channel I Rs 61.65/bag. Also the table reveals the total number of bag sold in different channels. In channel III, return to producer is Rs 908480 while that of channels I is Rs 250710 and channel II is Rs. 178640 respectively. The total return received from all the channels is Rs 1337830.

The producer marketing charges in Rose marketing in deferent marketing channels per bag. Total marketing cost of producer is found to be highest in channel III, (Rs 98.04/bag) followed by channel II (Rs71.41/bag) and channel I (Rs

62.2/bag) respectively. The total cost of marketing was Rs.141394. In channel 3, producer gets Rs 759700 in return for his production, followed by channels I (Rs 224440) and channel II (Rs149910) respectively. The total return received by all the channels is Rs1099260.

b. Marketing constraints faced by sample farmers
The farmers were asked to elicit the problems faced by them relating to the various aspects of marketing of the major cut flower crops in the study region and it was subjected to analysis by using Garrett's ranking technique and the results are presented in the following tables.

Table 4: Marketing constraints of cut flower farmers

S. No.	Particulars	Percentage	Ranking
1.	Cold Storage facilities	60	IV
2.	Transportation Cost	20	VII
3.	Non availability of good quality flower	20	VIII
4.	High price fluctuations	100	I
5.	Quick deterioration in quality	40	VI
6.	lack of credit facilities	100	II
7.	Lack of regular consumers	80	III
8.	Price information	60	V

Most cut flower producers indicated that they faced various marketing constraints that impend increased supply to the market. The most Important 60% ones included lack of the required production/marketing skills, low marketing prices (40%) in adequate space and allocated selling time and high input costs. Some respondents indicated that transport that transport and storage facilities were impediments to increased supply to the market.

Mathivanan B (2013) [3] also reveald that the 4% of the respondents are affected poor transportation facilities, 28% of the respondents are faced by low price for the flowers, 40% of the respondents problem faced by fluctuations in the prices, 2% of the respondents exploitation by the middle man, 24% of the respondents are problem faced by the lack of storage facilities and 2% of the respondents are faced all the problems [3].

Conclusion
The cut flowers produced are being sold through different marketing channels to different markets. In the all there were three marketing channels in which three functionaries namely commission agents, wholesaler and retailer were involved. The marketing channel III was the efficient marketing channel for all the three cut flower crops (rose and gerbera). Lesser price spread due to the absence of intermediaries and better regulation. The most important constraint identified by the Rose, Gerbera growers in polyhouse was higher price fluctuation in flower market. Establishment of co-operative marketing of cut flower growers may facilitate direct marketing and may improve the bargaining power of farmers, in turn, may improve the farmers' share in consumer rupee.

Recommendation
Establishment of co-operative marketing of cut flower growers may facilitate direct marketing and may improve the bargaining power of farmers, in turn, may improve the farmers' share in consumer rupee. The farmers in the region should take the benefit of action market forecast and also follow future trading either by adopting warehouse receipt method or by practicing Demat account to eliminate price risk. There is a need to initiate a well-equipped extension service programme to extend valuable guidelines to the producers of flowers.

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