Original Research Article

Studies on marketing of flower cultivation under polyhouses in Chittor district of Andhra Pradesh, India

ABSTRACT

Flower industry is an emerging as a blooming business not only in India, but in other countries as well. Floriculture denotes cultivation of flowers, developing new varieties of commercial value, sale of flowers as raw commodities, processing, distribution, etc. for the local and international market. This paper attempted to to analyse the different marketing channels of flower cultivation under polyhouse in chittor district of Andhra Pradesh. This study was carried out based on primary data and interviewed with 30 flower growers and seller in chittor district. Three channels were identified namely channel I: Farmer _Wholesaler_Trader _Retailer _Consumer, Channel - II: Farmer _ wholesaler _retailer_consumer **and** Channel-III: Farmer _wholesaler _consumer. With regard to marigold in channel – I, the net share of the producer in the consumer's rupee was 40 per cent and price spread Rs.65 and marketing efficiency 0.66, whereas, in chrysanthemum, the net share of the producer in the consumer's rupee is 48 per cent and marketing efficiency 0.90. With regard to marigold in channel – II, the net share of the producer in the consumer's rupee was 45 per cent and price received by the farmer was Rs.43 per kg of the produce from the wholesaler and the wholesaler was selling at a price of Rs.64 per kg to the retailer. The final purchase price of the consumer was Rs.96 price spread Rs.43 and marketing efficiency 0.81. In case of chrysanthemum, the net share of the producer in the consumer's rupee was 51 per cent and marketing efficiency 1.05. The producer's share in the consumer's rupee was 55 per cent for marigold in channel – III, price spread was Rs.35 and marketing efficiency was 1.22, while, in case of chrysanthemum, the net share of the producer in the consumer's rupee was 64 per cent, marketing efficiency 1.76. . Channel - III was having the highest efficiency among all the channels but mostly used channel was channel – II.

Key words: *Producers share, price spread, marketing efficiency.*

1. INTRODUCTION

Floriculture is recognized as a sunrise industry by the government of India and gave it 100 per cent export oriented status [1,2]. Floriculture has become a predominant trade in agriculture due to the steady rise in demand for flowers. For this reasons, commercial floriculture has emerged as a high-tech operation under controlled climatic conditions [3-5]. It has become apparent that commercial floriculture has an excessive potential per unit area compared to other field crops and is, therefore, an income generating activity. The commercial activity of production and marketing of flower crops is also a source of gainful and quality employment for the majority of people.

2. MATERIALAS AND METHODS

2.1 Cost of marketing

The total cost incurred on marketing, in cash or in kind, by the producer-seller and by various intermediaries involved in the sale and purchase of the commodity till the commodity reaches the ultimate consumer was computed as follows:

$$\text{Cost of Marketing} = C_f + C_{m1} + C_{m2} + \ldots\ldots\ldots + C_{mn}$$

Where,

Cf = Cost paid by the producer from the time, the produce leaves the farm till sale.

Cmn = Cost incurred by the nth middleman in the process of buying and selling the product

2.2 Producer's share in consumer's rupee

It is the price received by the producer as a percentage in the consumer's price.

$$\text{Producers share in consumer rupee} = \frac{\text{Price received by the farmer}}{\text{Price paid by the customer}} \times 100$$

2.3 Analysis of price spread under different channels:

Price spread is the difference between the price paid by the consumer and the price received by the producer.

$$\text{Price Spread} = \text{Price paid by the consumer } (p_f) - \text{Price received by the Farmer } (P_f)$$

Where,

Pp -Price paid by the consumer

Pf-Price received by the farmer

2.4 Marketing Efficiency

Marketing efficiency is calculated to most efficient marketing system which delivers the goods to the consumer at a lowest cost.

Sheperd's formula was used for calculating marketing efficiency.

$$M.E = \left[\frac{v}{I}\right] - 1$$

where,

M.E=Index of marketing efficiency

V-Volume of produce sold

I= Total marketing costs and margins

Acharya's method formula was used for calculating marketing efficiency.

$$M.E = \frac{FP}{(MC+MM)}$$

M.E=Index of marketing efficiency

FP= Price received by the farmer

MC= Total marketing cost

MM=Net marketing margin

Floriculture was recognized as a sunrise industry by the government of

3. RESULTS AND DISCUSSION

Efficiency of marketing channels for marigold and chrysanthemum in the study area

3.1 Three Marketing channels identified for flowers in the study area

Marketing channel refers to the way through which the produce moves from the producer level to the ultimate consumers. It involves various trade practices and various intermediaries who facilitate the flow of goods and services from the point of production to the point of consumption. The channels adopted depends on various factors like location of the farm, distance from the markets, number of intermediaries and their availability and consumption pattern. Three marketing channels were identified in flowers marketing in the study area.

Channel – I: Farmer $\rightarrow$ Wholesaler $\rightarrow$ Trader $\rightarrow$ Retailer $\rightarrow$ Consumer

Channel II: Farmer $\rightarrow$ Wholesaler $\rightarrow$ Retailer $\rightarrow$ Consumer

Channel III: Farmer $\rightarrow$ Wholesaler $\rightarrow$ Consumer

Price spread for flowers in channel I is given in Table 1.

3.2 Marketing costs, margins and price spread in channel – I

The channel I comprises of farmer - wholesaler – trader– retailer - consumer. With regard to marigold, the wholesalers are buying a Kg of produce from the farmer at a cost of Rs. 43 and selling to the traders at a price of Rs.58 with a margin of Rs.8 after deducting their expenses. Traders are selling at a price of Rs. 81 with a margin of Rs.10 to the retailers who in turn are selling to the consumers at a price of Rs. 108 with a margin of Rs.15.

In case of chrysanthemum, the wholesalers are buying a Kg of produce from the farmer at a cost of Rs.76 and selling to the traders at a price of Rs.95 with a margin of Rs.12 after deducting their expenses. Traders are selling at a price of Rs.123 with a margin of Rs.15 to the retailers who in turn are selling to the consumers at a price of Rs. 160 with a margin of Rs.25.

Table 1. marketing costs, margins and price spreads in channel – I (farmer– wholesaler – trader - retailer – consumer) (Rs/Kg)

Sl. No.	Particulars	Marigold	Chrysanthemum
1.	Farmers selling price/ Wholesalers purchase price	43.00 (39.9)	76.00 (47.5)
2	**Costs incurred by wholesaler**		
a	Labour charges	2.00 (1.85)	2.00 (1.25)
b	Transport charges	1.00 (0.92)	1.00 (0.6)
c	Storage	1.00 (0.92)	1.00 (0.6)
d	Shop establishment charges	2.00 (1.85)	2.00 (1.25)
e	Damage and miscellaneous	1.00 (0.92)	1.00 (0.6)
3	Wholesalers margin	8.00 (7.4)	12.00 (7.5)
4	Wholesalers selling price/ Traders purchase price	58.00	95.00
5	**Costs incurred by Trader**		

a	Labour charges	4.00 (3.7)	4.00 (2.5)
b	Transport charges	3.00 (2.77)	3.00 (1.87)
c	Storage	2.00 (1.85)	2.00 (1.25)
d	Shop establishment charges	2.00 (1.85)	2.00 (1.25)
e	Damage and miscellaneous	2.00 (1.85)	2.00 (1.25)
6	Traders margin	10.00 (9.25)	15.00 (9.3)
7	Traders selling price/retailers purchase price	81.00	123.00
8	**Costs incurred by retailer**		
a	Labour charges	3.00 (2.77)	3.00 (1.87)
b	Storage	1.50 (1.3)	1.50 (0.93)
c	Shop establishment charges	2.50 (2.31)	2.50 (1.5)
d	Transport charges	3.00 (2.7)	3.00 (1.8)
e	Damage and miscellaneous	2.00 (1.85)	2.00 (1.25)
9	Retailers margin	15.00 (13.8)	25.00 (15.7)
10	Retailers selling price/consumers purchase price	108.00 (100)	160.00 (100)
11	**Price spread**	**65.00**	**84.00**

The price spread in the channel – I for marigold and chrysanthemum are Rs.65.00, and Rs.84.00, respectively.

3.3 Marketing costs, margins and price spread in channel – II

Price spread for flowers in channel II is given in Table 2. The channel II comprises of farmer – wholesaler – retailer – consumer. The purchase price of marigold from the farmers by the wholesalers is Rs.43 and selling price to the

retailers is Rs.64 with a margin of Rs.8. Retailers are selling to the consumers at a price of Rs.96 with a margin of Rs.20. In case of chrysanthemum, the wholesalers purchasing cost is Rs.76 and selling price to the retailers is Rs.101 with a margin of Rs.12. The final price to the consumers is Rs.148 giving a margin of Rs. 35 to the retailer.

Table 2. Marketing costs, margins and price spreads in channel – II (farmer – wholesaler – retailer - consumer) (Rs/Kg)

Sl. No.	Particulars	Marigold	Chrysanthemum
1.	Farmers selling price/ Wholesalers purchase price	43.00 (44.79)	76.00 (51.35)
2.	**Costs incurred by wholesaler**		
a	Labour charges	3.00 (3.12)	4.00 (2.7)
b	Transport charges	3.50 (3.6)	3.00 (2.02)
c	Storage	2.00 (2.08)	2.00 (1.35)
d	Shop establishment charges	2.00 (2.08)	2.00 (1.35)
e	Damage and miscellaneous	2.50 (2.6)	2.00 (1.35)
3	Wholesalers margin	8.00 (8.33)	12.00 (8.1)
4	Wholesalers selling price/retailers purchase price	64.00	101.00
5	**Costs incurred by retailer**		
a	Labour charges	3.00 (3.12)	3.00 (2.02)
b	Storage	1.50 (1.56)	1.50 (.01)
c	Shop establishment charges	2.50 (2.6)	2.50 (1.68)
d	Transport charges	2.00 (2.08)	2.00 (1.35)
e	Damage and miscellaneous	3.00 (3.12)	3.00 (2.07)
6	Retailers margin	20.00 (20.83)	35.00 (23.6)

7	Retailers selling price/consumers purchase price	96.00 (100)	148.00 (100)
8	**Price spread**	**43.00**	**72.00**

The price spread in the channel – II for marigold and chrysanthemum are Rs.43.00, and Rs.72.00, respectively.

3.4 Marketing costs, margins and price spread in channel – III

Price spread for flowers in channel III is given in Table 3. The channel III comprises of farmer – wholesaler – consumer. Marigold is bought by the wholesaler from the farmers at a price of Rs. 43 and selling price to the consumers is Rs.78 with a margin of Rs. 22. In case of chrysanthemum, the wholesalers are purchasing at a cost of Rs.76 and selling to the consumers at a price of Rs.119 with a margin of Rs.30.

Table 3. Marketing costs, margins and price spreads in channel – iii (farmer – wholesaler – consumer) (Rs/Kg)

Sl. No.	**Particulars**	**Marigold**	**Chrysanthemum**
1	Farmers selling price/ Wholesalers purchase price	43.00 (55.12)	76.00 (63.8)
2.	**Costs incurred by wholesaler**		
2.a	Labour charges	3.00 (3.8)	4.00 (3.36)
2.b	Transport charges	4.00 (5.12)	3.00 (2.52)
2.c	Storage	2.00 (2.5)	2.00 (1.68)
2.d	Shop establishment charges	2.00 (2.5)	2.00 (1.68)
2.e	Damage and miscellaneous	2.00 (2.5)	2.00 (1.68

3	Wholesalers margin	22..00 (28.2)	30.00 (25.21)
4	Wholesalers selling price/ consumers purchase price	78.00 (100)	119.00 (100)
5	**Price spread**	**35.00**	**43.00**

The price spread in the channel – III for marigold and chrysanthemum are Rs.35.00, and Rs. 43.00 respectively.

3.5 Producers share in consumer rupee

Producers share in consumer rupee for the three marketing channels is presented in the Table 4. Producers share in consumers rupee is highest in channel – III followed by channel – II and least in the channel – I. This is because highest number of intermediaries are involved in channel – I compared to the other two channels. Channel – III is having highest producers share in the consumer rupee because of less number of intermediaries. Most of the farmers use Channel – II. The farmers can directly link with the retail chains, restaurants etc., to increase their profits. In the consumer perspective, channel – III is affordable to them as the price paid by the consumers is lowest in channel – III, compared to other two channels.

Table 4. Producers share in consumer rupee among the various channels

Sl. No.	Crops	Channel- I (Percentage)	Channel –II (Percentage)	Channel- III (Percentage)
1	Marigold	40	45	55
2	Chrysanthemum	48	51	64

Bhalsing (2012) studied a geographical study of chrysanthemum production in Nagar and Parner tahsils of Ahmednagar district, reported that the producer's share in consumer's rupee was 20.79 per cent.

3.6 Marketing channel efficiency

The efficiency of each channel for flower crops is analyzed by using Sheperd's formula and presented in the Table 5. Marketing Efficiency Index (MEI) represents the effectiveness of a marketing system in which it operates. The marketing efficiency for channels I, II and III for marigold is 0.66, 0.81, 1.22, respectively and for chrysanthemum it is 0.90, 1.05, 1.76, respectively. It can be observed from the results that channel – III is having highest marketing efficiency among all the three channels for flower crops. This is because of the fact that channel – III has least number of intermediaries and hence, this channel is more efficient than the channel – I and channel – II. The channel – I is seen as the least efficient channel because of the lengthier marketing channel and multiplicity of margins to the intermediaries.

The efficiency of each channel for flower crops is analyzed by using Acharya's method and presented in the Table 6. Marketing Efficiency Index (MEI) represents the effectiveness of a marketing system in which it operates. The marketing efficiency for channels I, II and III for marigold is 0.43, 0.60, 0.75, respectively and for chrysanthemum it is 0.55, 0.63, 1.04, respectively. It can be observed from the results that channel – III is having highest marketing efficiency among all the three channels for flower crops. This is because of the fact that channel – III has least number of intermediaries and hence, this channel is more efficient than the channel – I and channel – II. The channel – I is seen as the least efficient channel because of the lengthier marketing channel and multiplicity of margins to the intermediaries.

Table 5. Marketing efficiency of flowers in different channels (Rs/Kg) by using Sheperd's formula

Sl. No.	Particulars	Channel – I	Channel – II	Channel – III
1.	Marigold			

	Value of marketing output	108.00	96.00	78.00
	Total marketing cost	65.00	53.00	35.00
	Marketing efficiency	0.66	0.81	1.22
2.	Chrysanthemum			
	Value of marketing output	160.00	148.00	119.00
	Total marketing cost	84.00	72.00	43.00
	Marketing efficiency	0.90	1.05	1.76

Table 6. Marketing efficiency of flowers in different channels (Rs. /Kg) by using Acharya's method

S.No.	Particulars	Channel – I	Channel – II	Channel – III
1.	Marigold			
	Price received by the farmer (FP)	43.00	43.00	43.00
	Total marketing cost (MC)	65.00	43.00	35.00
	Net marketing margin (MN)	33.00	28.00	22.00
	Marketing efficiency	0.43	0.60	0.75
2.	Chrysanthemum			
	Price received by the farmer (FP)	76.00	76.00	76.00
	Total marketing cost (MC)	84.00	72.00	43.00
	Net marketing margin (MN)	52.00	47.00	30.00
	Marketing efficiency	0.55	0.63	1.04

4. CONCLUSION

Three channels were identified in the marketing of flowers and are they are

Channel I: Farmer $\rightarrow$Trader$\rightarrow$Wholesaler $\rightarrow$Retailer$\rightarrow$Consumer

Channel II: Farmer →Wholesaler →Retailer→Consumer

Channel III: Farmer →Wholesaler →Consumer

Price spread of flowers

Channel I: Farmer →Wholesaler→Trader →Retailer →Consumer

With regard to marigold in channel – I, the net share of the producer in the consumer's rupee is 40 per cent. The price received by the farmer is Rs.43 per kg of the produce from the wholesaler and the wholesaler is selling at a price of Rs.58 per kg to the trader. The trader selling price to the retailer is Rs.81 per kg which is sold at a price of Rs. 108 to the consumer. The price spread for marigold is Rs.65 and marketing efficiency is 0.66. In case of chrysanthemum the net share of the producer in the consumer's rupee is 48 per cent. The price received by the farmer is Rs.76 per kg of the produce from the wholesaler and the wholesaler is selling at a price of Rs.95 to the trader. The trader selling price to the retailer is Rs 123 per kg which is sold at a price of Rs.160 to the consumer and the price spread is Rs.84. The marketing efficiency for chrysanthemum is 0.90 in channel – I.

Channel - II: Farmer →Wholesaler →Retailer→Consumer

With regard to marigold in channel – II, the net share of the producer in the consumer's rupee is 45 per cent. The price received by the farmer is Rs.43 per kg of the produce from the wholesaler and the wholesaler is selling at a price of Rs.64 per kg to the retailer. The final purchase price of the consumer is Rs.96. The price spread for marigold is Rs.43 and marketing efficiency is 0.81. In case of chrysanthemum the net share of the producer in the consumer's rupee is 51 per cent. The price received by the farmer is Rs.76 per kg of the produce from the wholesaler. The wholesalers selling price to the retailer is Rs.101 per kg which is sold at a price of Rs. 148 to the consumer and the price spread is Rs.72. The marketing efficiency for chrysanthemum is 1.05 in channel – II.

Channel-III: Farmer →Wholesaler →Consumer

The producer's share in the consumer's rupee is 55per cent for marigold in channel – III. The price received by the farmer is Rs.43 per kg of the produce from the wholesaler and the wholesaler is selling at a price of Rs.78 per kg to the consumer. The price spread for marigold is Rs.35 and marketing efficiency is 1.22. In case of chrysanthemum the net share of the producer in the consumer's rupee is 64 per cent. The producer is selling at a price of Rs.76 per kg to the wholesaler. The consumer is purchasing at a cost of Rs.119 per kg from the wholesaler and the price spread is Rs.43. The marketing efficiency for chrysanthemum is 1.76 in channel – III.

Channel - III is having the highest efficiency among all the channels but mostly used channel is channel – II.

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