



Analyzing the Price Spread and Marketing Efficiency of Marigold Growers in the Raipur District of Chhattisgarh, 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 purpose of the study was to identify marketing channels, price spreads, marketing margins, and marketing efficiency of Marigold in Raipur district, Chhattisgarh, India. Only for Marigold was the primary data gathered using the survey approach. Multi stage sampling design was adopted for the selection of district as the first stage unit, block as the second stage unit, villages as the third stage units and farm holding as the final and ultimate stage units. A total of 80 Marigold farmers were the subject of the study. The highest area under cultivation and production was in

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Chhattisgarh's Raipur district, where the study was conducted. Utilising a two-stage stratified random sampling technique, channel actors were chosen. The channel 1 was more efficient than other channel because producer share in consumer rupee was more (79.84%) in channel 1, than channel 2 (53.46%) and channel 3 (48.55%) in Raipur market. The price spread was low in channel 1 as the produce was sold to the consumer directly by the farmer. The channel 1 used had the highest marketing efficiency. Comparing channels 1, 2, and 3, it was revealed that the relatively lower marketing efficiency of channel 3. Marketing efficiency was also calculated for each channel, with channel I having a value of 4.96, followed by channel II with 2.14, and channel III with 1.94. These results indicate that channel I was the most efficient market among the three. The findings demonstrate an inverse relationship between marketing efficiency and the number of intermediaries involved. The paper offers guidance on choosing the ideal marketing channel for the promotion of marigolds. The paper also offers empirical data that can be used to adopt market options for greater gains for different chain actors.

Keywords: Marketing cost; marketing efficiency; price spread; marigold.

1. INTRODUCTION

“Marigold, a member of the Asteraceae family, holds significant importance and popularity in India, ranking third in number after roses and chrysanthemums. It originates from America and is cultivated by a majority of farmers on a small scale. Understanding the cost of cultivation and returns from marigold cultivation is crucial for farmers to effectively manage their available resources and ensure profitability. The livelihood of many farmers relies solely on income from marigold cultivation” [1]. In this region, farmers have more than ten years of experience in marigold cultivation, initially practicing conventional methods without much knowledge of advanced cultivation techniques. Due to their limited awareness of modern management practices and inefficient use of inputs, they have encountered issues leading to a decline in marigold productivity. Marigold is not only grown as an ornamental cut flower and for landscape purposes but also serves as a source of natural carotenoid pigment for poultry feed.

“Marigold is predominantly cultivated for loose flower production in commercial settings. Recently, there has been a growing interest among farmers in adopting alternative practices like organic farming to ensure sustainable crop cultivation. This shift towards organic methods involves the use of natural fertilizers such as poultry manure, farm yard manure, goat manure, vermicompost, and compost. Incorporating organic materials into the farming process not only enhances the physical, chemical, and biological properties of the soil but also has direct benefits, including improved moisture retention, root growth, and nutrient conservation. Additionally, the application of organic practices

can contribute to reducing production costs in agriculture” [2,3].

In order to promote environmentally sustainable farming practices and maintain optimal soil conditions, it is essential to explore cost-effective and environmentally friendly alternatives for nutrient sources. Thus, this study was conducted to examine the impact of organic sources on marigold flower production, aiming to preserve soil health and protect the environment. In Chhattisgarh, the area dedicated to marigold cultivation has slightly increased from 5072 hectares to 5092 hectares between 2020-2021 and 2021-2022, according to the Anonymous NHM Chhattisgarh database. Chhattisgarh state possesses a substantial acreage suitable for commercial flower cultivation, mainly concentrated around cities and towns such as Raipur, Durg, and Bilaspur. Floriculture has emerged as a highly profitable business, with flowers being cultivated on approximately 322 thousand hectares in India during 2020-2021, yielding a production of 2980 thousand metric tons, as reported by the Anonymous Agriculture Ministry database. In the same period, there was an area of 28,327 hectares dedicated to flower cultivation, producing 312,823 metric tons. The process of delivering flowers from the farm gate to consumers involves various market intermediaries. The demand for flowers is increasing significantly in major cities such as Raipur, Durg, and Bilaspur.

2. RESEARCH METHODOLOGY

2.1 Sampling Design

Multi stage sampling design was adopted for the selection of district as the first stage unit, block

as the second stage unit, villages as the third stage units and farm holding as the final and ultimate stage units.

2.1.1 Selection of the districts

The state comprises 33 districts, among these districts, Raipur district was selected purposively for the study of Marigold for present study.

2.1.2 Selection of blocks

There are 4 blocks in Raipur District. Out of them Abhanpur block was selected purposively for this study.

2.1.3 Selection of villages

“A complete list of all village was obtained from the related Gram Panchayat, of which 5% villages were selected randomly. In order to select the villages from these districts Raipur was selected randomly having Marigold for the study. Block development officer was contacted and lists of Marigold growing villages were prepared. From the prepared Information about the selected Districts, Block, Villages and respondents. The village Julum, Tekari, Raweli, Mundra and Kanhera”. [11]

2.1.4 Selection of Respondents/ Farmers

“A separate list of farmers growing Marigold of selected villages were obtained from Gram Pradhan. There after these farmers were categorized into different size farm groups. Out of that, 10% of respondents were selected randomly on the basis of Marigold cultivation for the study”. [11] Based on size of holding farmers were classified into three groups i.e.

List 1. Selection of Respondents

Sr. No.	Category	Size - Class
1	Marginal	Below 1.00 hectare
2	Small	1.00-2.00 hectare
3	Semi medium	2.00-4.00 hectare
4	Medium	4.00-10.00 hectare
5	Large	10.00 hectare & above

(<https://www.pib.gov.in>)

From this list 80 respondents were selected randomly through proportionate allocation to the population.

2.2 Analytical Techniques Employed

For achieving the stated objectives, following analytical procedure was adopted:-

2.2.1 Marketing cost

The total cost incurred on marketing of Marigold by the farmers and the intermediaries involved in the process of marketing was calculated as:

$$C = CF + C_{m1} + C_{m2} + C_{m3} + C_{mn}$$

Where;

C= Total cost of marketing

CF = Cost borne by the producer (farmer) in marketing of Marigold

C_{mn}= Cost incurred by the nth middlemen in the process of marketing.

2.2.2 Price spread

Price spread is defined as the difference between the price paid by the consumer and the net price received by producer for an equivalent quantity of farm produce.

$$\text{Price spread} = \frac{\text{Consumer price} - \text{Net price of producer}}{\text{Consumer price}} \times 100$$

2.2.3 Producer's share in consumer's rupee

The producer's share, marketing costs and margins of different middle-men in the marketing of Marigold crop were worked out for the adopted channels using the formula.

$$P_s = \frac{P_f}{P_c} \times 100$$

Where;

P_s=Producer's share in consumer's rupee

P_f = Price of the produce received by the farmer

P_c=Price of the produce paid by the consumer

2.2.4 Marketing Efficiency

The ratio of price paid by the consumer's (total value of goods) to total marketing cost is used as a measure of marketing efficiency.

$$\text{Marketing Efficiency} = (V/I) - 1$$

V=Total marketing cost

I=Consumer's price

3. RESULTS AND DISCUSSION

The term "price spread" refers to the difference between the price paid by the end consumer and the price received by the farmer for a specific quantity of produce. It encompasses the costs associated with various marketing functions and the margins of different entities involved in the marketing process of the commodity. Assessing the extent of price spread aids policymakers in formulating appropriate strategies to enhance marketing efficiency, either by reducing marketing costs or eliminating unnecessary intermediaries from the marketing process, or both. This study presents the marketing costs, margins, and price spread in the marketing of marigold through major channels, based on data collected from farmers and market functionaries. The channels identified in the study area are as follows:

- Channel I:** Producer - Consumer
- Channel II:** Producer - Retailer - Consumer
- Channel III:** Producer - Wholesaler - Retailer – Consumer

3.1 Marketing Cost of Marigold

The cost of marketing marigold was assessed and presented in Table 1, revealing insights about the three marketing channels. In channel I, the producer incurred a marketing cost of Rs. 584.46, with a selling price of Rs. 2900. In channel II, the producer's marketing cost amounted to Rs. 567.97. Among the various expenses, the highest expenditure was attributed to gunny bags, amounting to Rs. 72.69 in channel I and Rs. 70.49 in channel III. In channel III, the producer incurred a marketing cost of Rs. 507.94, while the wholesaler and retailer had costs of Rs. 151.05 and Rs. 135.81, respectively. The market margin for the wholesaler and retailer stood at Rs. 364.25 and Rs. 914.46, respectively. The total marketing cost in channel III amounted to Rs. 779.29, and the combined margin received by the wholesaler and retailer reached Rs. 1278.71. Based on the aforementioned discussion, it can be concluded that channel III exhibited the highest total marketing cost of Rs. 779.29, along with the highest total margin of Rs. 1278.71.

Table 1. Marketing cost and market margin of marigold

Particulars	Total Price		
	Channel I	Channel II	Channel III
Marketing cost incurred by producer			
Cost of gunny bag	72.69	66.04	70.49
Packing	16.04	16.75	17.21
Loading	20.47	18.95	17.09
Transportation	138.35	132.94	109.62
Weighing Charges	15.88	16.18	16.16
Miscellaneous Charge	305.82	301.68	264.69
Unloading	15.21	15.43	12.68
Total Market cost	584.46	567.97	507.94
Selling Price of Producer	2900	2650	2450
Marketing cost incurred Wholesaler			
Cost of gunny bag	0	0	64.34
Weighing charges	0	0	16.26
Miscellaneous Charge	0	0	17.47
Market cess fund	0	0	37.47
Selling price	0	0	2949.79
Total marketing cost	0	0	135.54
Margin of wholesaler	0	0	364.25
Marketing cost incurred by Retailer			
Transportation	0	98.72	84.87
Shop rent	0	17.72	17.34
Miscellaneous Charge	0	18.43	17.56
Weighing charges	0	16.18	16.04
total marketing cost	0	151.05	135.81
Selling price	0	3894.35	4000.06
Margin of retailer	0	1093.3	914.46
Selling Price of retailer / Purchase price of consumer	2900.00	3894.35	4000.06

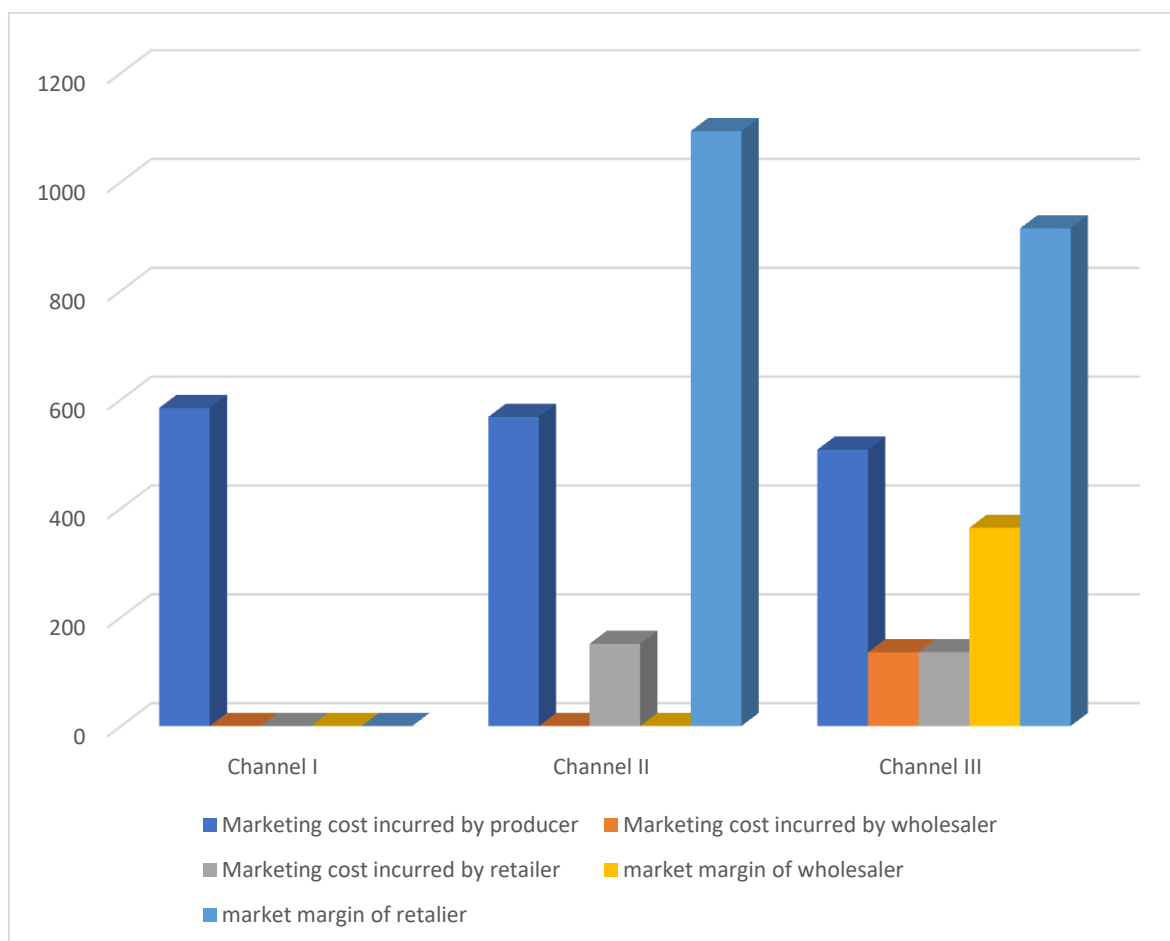


Fig. 1. Per qtl. marketing cost and marketing of marigold through various channels

Table 2. Price spread in marketing of marigold through various channels

Particulars	Total Price		
	Channel I	Channel II	Channel III
Net Price received by Producer	2315.54	2082.03	1942.06
Total Marketing cost incurred by producer, wholesaler, retailer	584.46	719.02	779.29
Total market margin of wholesaler & retailer	0	1093.3	1278.71
Selling price of retailer/ Purchase price of consumer	2900.00	3894.35	4000.06
Producer's share in consumer's rupee	(79.84)	(53.46)	(48.55)
Marketing Efficiency	4.96	2.14	1.94

3.2 Producer's Share in Consumer's Rupee

In Table 2 presents the calculation of the producer's share in the consumer's rupee for channel I, channel II, and channel III in marigold marketing. Among the three marketing channels, channel I represents direct marketing from the producer to the consumer. The data in Table 2

indicates that the net price received by the producer in channel I, channel II, and channel III was Rs. 2315.54, Rs. 2082.03, and Rs. 1942.06 per quintal, respectively. The highest share of the consumer's rupee received by the producer was in channel I, amounting to 79.84%. This was followed by channel II with 53.46%, and channel III with 48.55%. The higher number of intermediaries in channel III contributes to the

lower share of the consumer's rupee received by the producer. Additionally, channel III exhibited the highest total marketing cost at 19.48% and market margin at 31.97% compared to the other channels. Although channel I had the highest producer's share in the consumer's rupee and net price received by the producer, it is not always feasible for growers to sell all their produce in local markets or villages due to limited purchasers. As a result, producers often sell their produce through channel III, which confirms the hypothesis. Marketing efficiency was also calculated for each channel, with channel I having a value of 4.96, followed by channel II with 2.14, and channel III with 1.94. These results indicate that channel I was the most efficient market among the three. The findings demonstrate an inverse relationship between marketing efficiency and the number of intermediaries involved.

4. CONCLUSION

In the study area, three distinct Marigold marketing channels were found.

Channel I: Producer–Consumer

Channel II: Producer—Retailer–Consumer

Channel III: Producer–Wholesaler–Retailer–Consumer

The producer's share in consumer's rupee was the highest in channel I i.e. (79.84%) per cent followed by channel II (53.46 %) and channel III (48.55 %). Net price received by producer was the highest in channel I i.e. Rs. 2315.54 per quintal hence selling of marigold through channel I found more remunerative than other channels in study area. The market efficiency in channel I was 4.96 In channel II it was 2.14 and in channel III it was 1.94. The lack of technical knowledge is the major problem in production while price fluctuation and high cost of transportation is the major problem in marketing.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Bhalsingh and R. R, Marketing of marigold in Maharashtra, International Research Journal. 2009;1.
2. Bhanumathy V, Sita Devi K. An economic analysis of marketing cost, margin and price spread of jasmine in Chidambaram Taluka of Cuddalore district of Tamilnadu. Indian Journal of Agricultural Marketing. 2003;17(1);41-43.
3. Dhillon A, Khatkar RK, Kumar A, Marketing costs and price spread for marigold flower in Haryana. Agricultural Marketing. 2005;09-12.
4. Duda, S, Muntean LS, Duda MM. Results on economic efficiency in marigold's growing in climatic conditions from Jucu. Cluj Bulletin UASVM Agriculture. 2012;69(1):232-237.
5. Haque MA, Miah MM, Hossain S, Alam M. Economics of marigold cultivation in some selected areas of Bangladesh. Bangladesh Journal of Agricultural Research. 2013;37(4):711-720.
6. Jagtap MD, Patil SN, Nichit MB, Shelke RD. Economic efficiency of marigold marketing in Pune district of Maharashtra. Agriculture Update Research Article. 2009;4(3 and 4);432-435.
7. Kolambkar RA, Suryawanshi RR, Shinde HR, Deshmukh KV. A study on marketing of marigold in Western Maharashtra. International Research Journal of Agricultural Economics and Statistics. 2014;5(2):143-147
8. Kumar A, Verma SC, Chaurasia S, Saxena SB. Production and marketing of marigold flowers in Uttar Pradesh with special refrance to Kannauj district. Hort Flora Research Spectrum. 2013;2(3):220-224.
9. Kumar R, Reddy AR, Sen C. Marketing of marigold, rose and jasmine in U.P. Ind. J. Agricultural Marketing. 2004;18(1):130-132.
10. Singh AK, Singh MK, Singh RJ. The economics of marigold flowers in Eastern Uttar Pradesh. The Journal of Rural and Agricultural Research. 2013;13(2):75-78.
11. Shaikh A, Maurya MK, Mishra A. Analysis of price spread, marketing efficiency and constraint faced by tomato growers in Raipur District, Chhattisgarh. The Pharma Innovation Journal 2023;12(6):2201-2205