

AN ECONOMIC ANALYSIS ON MARKETING OF RED GUAVA IN PRAYAGRAJ DISTRICT OF UTTAR PRADESH

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ABSTRACT

Red guava, known for its bright red to pink pulp, is a tropical fruit valued for its high content of vitamin C, dietary fiber, and antioxidants. Popular for its sweet and slightly tangy taste, it is widely used in juices, sweets, and various culinary preparations. This study, titled "An Economic Analysis on Marketing of Red Guava in Prayagraj District of Uttar Pradesh," investigates the marketing practices and efficiency of red guava in the Kaurihar block of Prayagraj. The block was deliberately chosen, and a sampling method was used to select five percent of red guava-producing villages, from which ten percent of farmers were randomly selected. The study outlines three main marketing channels: Channel-I (Producer to Consumer), Channel-II (Producer to Wholesaler to Consumer), and Channel-III (Producer to Wholesaler to Retailer to Consumer). Channel-I showed the lowest marketing cost (₹72), the highest net return to farmers (₹8428), and the greatest marketing efficiency (117%), indicating it as the most profitable. In contrast, Channel-II and Channel-III had higher costs (₹115 and ₹168, respectively), lower producer returns, and reduced efficiency (5.71% and 3.73%). These findings highlight the benefits of direct marketing in maximizing farmer income.

Keywords: Red guava, Marketing efficiency, Price spread, Marketing channels.

INTRODUCTION

Red guava (*Psidium guajava*), a tropical fruit crop, is widely grown in India due to its high nutritional content, economic value, and ability to thrive in various climatic conditions. Its red to pink flesh and pleasant sweet-tangy taste have made it a favorite among consumers. The fruit is an excellent source of vitamin C, dietary fiber, antioxidants, and essential micronutrients, offering health benefits such as strengthened immunity, better digestion, and improved skin condition. Besides its

health advantages, red guava farming provides a vital income source for small and marginal farmers, especially in areas with suitable growing conditions. It is sold in several forms, including fresh fruit, juices, jams, and other processed products, boosting its commercial appeal. However, the marketing structure in many parts of the country, including Prayagraj district in Uttar Pradesh, remains unorganized, often leading to reduced earnings for farmers due to the involvement of several middlemen and inefficient practices. This situation



highlights the need to analyze marketing systems, including channels, costs, profit margins, and efficiency, to recommend strategies that can help improve farmers' income and ensure sustainable cultivation.

RESEARCH METHODOLOGY

The present study employed a purposive-cum-random sampling method to achieve both relevance and representativeness in data collection. Prayagraj district in Uttar Pradesh was deliberately selected due to its accessibility and the widespread cultivation of red guava. Within the district, Kaurihar block was identified based on its concentration of red guava farmers. From a complete list of villages in the block, five percent with a notable presence of red guava cultivators were randomly chosen. A farmer list was then prepared and categorized into five landholding groups: Marginal (<1 ha), Small (1–2 ha), Semi-medium (2–4 ha), Medium (4–10 ha), and Large (>10 ha). From this list, 90 farmers were selected using proportionate random sampling. To assess marketing dynamics,

15 wholesalers or commission agents and 25 retailers were also selected. Data collection involved primary data gathered through personal interviews using a pre-tested, structured schedule, while secondary data were sourced from relevant books, journals, official records, and government reports. The study, conducted during the 2024–2025 agricultural year, utilized appropriate statistical techniques for data analysis.

ANALYTICAL TOOLS

Cost of Marketing:

$$C_f + C_{m1} + C_{m2} + C_{m3} + \dots + C_{mn}$$

Margin of Market:

$$AMI = P_{ri} - (P_{pi} + C_{mi})$$

Spread in Price: Marketing Cost +

Market Margin

Efficiency of Marketing:

$$= \frac{\text{Price received by producer}}{\text{Marketing Cost} + \text{Marketing Margin}}$$

RESULTS AND DISCUSSION

Table 1: Price distribution of Red Guaben in Marketing Cost, Marketing Margin, Marketing Efficiency in channel-1

S. No	Details	Red Guava (₹/Quintal)
1	Selling price received from consumer	8,500
2	Expenses incurred by grower in marketing	
	a. Cost of packaging	5
	b. Weighing charges	4
	c. Labour expenses	19
	d. Transportation	15
	e. Other miscellaneous costs	29
3	Total marketing expenditure (a–e)	72
4	Net income earned by grower	8,428
A	Selling price per kg	85
B	Combined marketing margin	72
C	Price difference (spread)	72
D	Marketing performance efficiency (%)	117



Table 1: The findings of the study showed that in Channel-I (Producer → Consumer), the selling price of red guava was ₹8500 per quintal, equivalent to ₹85 per kilogram. The producer's marketing cost for selling one quintal was ₹72, resulting in a net return of ₹8428. Since there were no intermediaries,

the price spread was also ₹72, the same as the marketing cost. This direct selling approach demonstrated a marketing efficiency of 117%, indicating that Channel-I was the most cost-effective and beneficial route for farmers, offering maximum returns with minimal expenses.

Table 2: Price distribution of Red Guava in Marketing Cost, Marketing Margin, Marketing Efficiency in channel-2

S. No	Details	Red Guava (₹/Quintal)
1	Price received by producer from wholesaler	7,870
2	Producer's marketing expenses	
	a. Packaging	5
	b. Weighing charges	4
	c. Labour charges	19
	d. Transport to market	15
	e. Miscellaneous expenses	29
	Total producer's cost (a–e)	72
3	Net amount received by producer	7,798
4	Wholesaler's selling price to consumer	9,091
5	Wholesaler's marketing expenses	
	a. Loading and unloading	4
	b. Carriage to shop	6
	c. Weighing charges	5
	d. Transportation	11
	e. Miscellaneous costs	17
	Total cost to wholesaler (a–e)	43
6	Wholesaler's profit margin	1,250
A	Overall marketing cost (Producer + Wholesaler)	115
B	Total marketing margin	1,250
C	Price spread	1,365
D	Marketing efficiency (%)	5.71

Table 2: The analysis of Channel-II (Producer → Wholesaler → Consumer) showed that the producer sold one quintal of red guava to the wholesaler at ₹7,870. The producer incurred marketing costs of ₹72, resulting in a net price of ₹7,798. The wholesaler then sold the same quantity to the consumer for ₹9,091, with marketing expenses totaling ₹43 and earning a margin of ₹1,250. Overall, the total marketing cost

for this channel was ₹115, and the combined marketing margin reached ₹1,250. The price spread amounted to ₹1,365, while the marketing efficiency stood at 5.71%. This efficiency is considerably lower than that of the direct producer-to-consumer channel, mainly due to the additional costs and margins imposed by intermediaries.

Table 3: Price distribution of Red Guaben in Marketing Cost, Marketing Margin, Marketing Efficiency in channel-3

S. No	Particulars	Red Guava (₹/Quintal)
1	Price received by producer from wholesaler	7,870
2	Producer's marketing expenses	
	a. Packaging cost	5
	b. Weighing charges	4
	c. Labour charges	19
	d. Transportation cost	15
	e. Miscellaneous expenses	29
	Total producer's marketing cost (a–e)	72
3	Net price earned by producer	7,798
4	Wholesaler's sale price to retailer	8,930
5	Wholesaler's marketing costs	
	a. Loading and unloading charges	5
	b. Carriage to shop	6
	c. Weighing charges	7
	d. Transportation charges	11
	e. Miscellaneous expenses	17
	Total wholesaler's marketing cost (a–e)	45
6	Wholesaler's margin	1,015
7	Retailer's sale price to consumer	9,886
8	Retailer's marketing expenses	
	a. Loading and unloading charges	5
	b. Transportation (carriage to shop)	6
	c. Spoilage and losses	28
	d. Miscellaneous expenses	12
	Total retailer's marketing cost (a–d)	51
9	Retailer's margin	905
A	Overall marketing cost (Producer + Wholesaler + Retailer)	168
B	Total marketing margin	1,920
C	Price spread	2,088
D	Marketing efficiency (%)	3.73

Table 3: The analysis of Channel-III (Producer → Wholesaler → Retailer → Consumer) showed that the producer sold one quintal of red guava to the wholesaler for ₹7,870, incurring marketing costs of ₹72 and receiving a net amount of ₹7,798. The wholesaler then sold the guava to the retailer at ₹8,930, with marketing expenses of ₹45 and a profit margin of ₹1,015. The retailer subsequently sold the fruit to the

consumer at ₹9,886, bearing marketing costs of ₹51 and earning a margin of ₹905. Overall, the total marketing cost in this channel reached ₹168, while the combined margin of the wholesaler and retailer totaled ₹1,920. The price spread was ₹2,088, and the marketing efficiency was calculated at 3.73%, the lowest among all channels, primarily due to the higher costs and multiple intermediaries involved.



CONCLUSION

The study provided valuable insights into the marketing dynamics of red guava in the region, emphasizing variations in cost, profitability, and efficiency across three main marketing channels. Channel-I, where producers sold directly to consumers, proved to be the most efficient with a marketing efficiency of 117%. This channel involved a relatively low marketing cost of ₹72 and offered producers a high net return of ₹8,428, highlighting the advantages of minimizing intermediaries. In contrast, Channels II (Producer → Wholesaler → Consumer) and III (Producer → Wholesaler → Retailer → Consumer) showed significantly lower efficiencies of 5.71% and 3.73%, respectively, due to higher marketing costs and wider price spreads. Channel-II had a marketing cost of ₹115, a price spread of ₹1,365, and producers received ₹7,798, while Channel-III recorded the highest marketing cost at ₹168, with a price spread of ₹2,088 and total margins of ₹1,920. The presence of multiple intermediaries in these channels reduced the share of profits for producers. Consequently, the study concluded that direct marketing through Channel-I is the most beneficial for red guava growers, as it maximizes profitability and market efficiency. These findings underscore the need to encourage direct marketing practices and limit intermediary involvement to improve the income and economic stability of farmers engaged in red guava cultivation.

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