International Journal of Scientific Research in Engineering and Management (IJSREM)
Volume: 09 Issue: 10 | Oct - 2025 SJIF Rating: 8.586 ISSN: 2582-3930

Marketing Constraints of Cardamom in Idukki District, Kerala

Mrs. RANY MS, Ph. D Research Scholar,
Department of Commerce,
CMS College of Science and Commerce, Coimbatore

Dr. D. KIRUTHIKA, Associate Professor and Research Supervisor,
Department of Commerce with Computer Applications,
Dr. SNS Rajalakshmi College of Arts and Science, Coimbatore

ABSTRACT

This study, conducted in 2025 among 60 cardamom farmers in Idukki district, Kerala, examined the efficiency of marketing channels and the key constraints faced by producers. Using proportionate random sampling and Garrett's ranking technique, price volatility emerged as the most critical constraint, followed by limited access to organized markets, high commission charges, poor transportation, and weak government support. Three channels were identified: (i) Producer → Wholesaler → Retailer → Consumer, (ii) Producer → Commission Agent → Wholesaler → Retailer → Consumer, and (iii) Direct sales to consumers. Channel I proved most efficient, with a 97.6% producer's share and an MME of 38.40, compared to 96.6% and 26.72 in Channel II. Direct sales ensured higher margins but were restricted by local demand. Marketing costs averaged ₹120 per 50 kg bag, mainly due to transport. The findings highlight that despite efficient channels, structural challenges like price instability and weak institutional support undermine profitability, underscoring the need to strengthen e-auction access, improve infrastructure, and build farmer capacity in grading, storage, and market participation to sustain Kerala's cardamom sector.

Keywords: Cardamom, Idukki, Marketing channels, Price volatility, Producer's share, Efficiency, Constraints, Spices Board

INTRODUCTION

Agriculture and allied sectors contributed 20.2% to India's Gross Value Added (GVA) in 2020–21, with horticulture alone accounting for nearly one-third of agricultural GDP. Among horticultural crops, spices play a prominent role, generating about 41% of export revenues. India's spice exports surpassed US$4 billion for the first time in 2020–21 (Spices Board of India, 2022), with cardamom both small (Elettaria cardamomum) and large (Amomum subulatum) being key contributors.

Small cardamom, known as the "Queen of Spices," is native to the Western Ghats. Idukki district in Kerala produces nearly 70% of India's small cardamom, sustaining thousands of farm families and allied industries in grading, processing, and trade. The Spices Board of India regulates production and export, with e-auction centers established at Puttady and Vandanmedu to ensure transparency.

However, despite institutional reforms, cardamom farmers face persistent marketing challenges. Price volatility driven by global demand, dominance of intermediaries, high transaction costs, and inadequate infrastructure reduce profitability. This study investigates the prevailing marketing channels, their efficiency, and key constraints, providing insights for strengthening the cardamom economy of Idukki.

LITERATURE REVIEW

Literature Review The marketing of cardamom has been widely studied in South Asia, with particular attention to the challenges of fluctuating prices, intermediary dominance, and weak farmer market access. George and Cherian (2017) highlighted the global marketing challenges faced by Kerala producers, emphasizing the critical role of the Spices Board in ensuring price stability and export competitiveness. Similarly, Paul and Somanath

(2022) examined e-marketing in Kerala, showing that online platforms could reduce dependence on intermediaries and improve farmer margins.

Studies from comparable hill regions reinforce these findings. Pradhan, Kumari, and Das (2022) documented the dominance of intermediaries in large cardamom marketing in West Bengal, while Gurung et al. (2020) noted structural constraints in Sikkim, including limited organized market access and weak infrastructure. Pun (2019) reported that declining cardamom returns in Nepal were closely linked to both production and market inefficiencies.

More recent work has focused on institutional and governance responses. Murugan et al. (2024) argued that revival of the Indian small cardamom sector requires coordinated strategies involving farmer-producer organizations, better post-harvest management, and policy reforms. Supporting this, the Spices Board of India (2024) Annual Report outlined measures to enhance transparency in auctions and strengthen price discovery mechanisms.

Taken together, the literature suggests that while cardamom remains a high-value crop, farmers' incomes are undermined by unstable prices, long marketing chains, and weak bargaining power. This study builds on these insights by empirically assessing marketing channels in Idukki during 2025, with a focus on producer's share, marketing efficiency, and the major constraints faced by growers.

SIGNIFICANCE OF THE STUDY

This study is important as it highlights the efficiency of cardamom marketing channels and the major constraints faced by farmers in Idukki. The findings provide practical insights for farmers in choosing profitable channels, guide policymakers and the Spices Board in addressing price volatility and weak infrastructure, and help exporters and traders improve supply chain efficiency. Overall, it supports strategies to enhance farmer incomes and sustain Kerala's cardamom sector.

OBJECTIVES OF THE STUDY

- To examine the marketing channels of cardamom in Idukki district and evaluate their efficiency in terms of producer's share and marketing margins.
- To identify and analyse the major constraints faced by farmers in the marketing of cardamom using Garrett's ranking technique.
- To suggest appropriate measures for improving marketing efficiency and enhancing farmer participation in organized markets.

METHODOLOGY

The present study on the marketing constraints of cardamom in Idukki district, Kerala, was conducted during 2025 using both primary and secondary data sources. Primary data were collected from cardamom farmers through structured interviews and pre-tested questionnaires, covering aspects such as marketing channels, price realization, marketing costs, constraints, and farmers' perception of auction systems. A proportionate random sampling method was adopted, selecting 60 farmers from major cardamom-growing blocks of Idukki to ensure representativeness. Personal observations and interactions with stakeholders—including traders, commission agents, and auction officials—were also incorporated to enrich the analysis.

Secondary data were gathered from published research articles, official reports of the Spices Board of India, agricultural statistics, export data, and online journals relevant to cardamom trade and marketing. The Garrett's ranking technique was applied to identify and prioritize the major marketing constraints faced by farmers, while marketing efficiency and producers' share in consumer rupee were calculated to compare the effectiveness of different channels.

This mixed-method approach provided a comprehensive understanding of the marketing system in Idukki, helping to capture both the quantitative and qualitative dimensions of farmers' challenges.

Description of the Study Area and Sample Size

The study was conducted in Idukki district of Kerala, India, which was purposively chosen as it is the leading producer of small cardamom in the country, accounting for the majority share of national production. Idukki is well known for its favorable agro-climatic conditions, particularly in the high ranges, which make it the hub of India's cardamom economy. The district is also home to the major auction centers at Puttady and Vandanmedu, functioning under the Spices Board of India.

For the present study, two major cardamom-growing blocks of Idukki district were purposively selected. From each block, two villages were randomly chosen to represent the diversity of production and marketing practices. Selection of respondent households was carried out using the proportionate random sampling method to ensure fair representation of both small and medium cardamom growers. A total of 60 cardamom farming households formed the sample size for the study.

Primary data were collected through structured questionnaires, key-informant interviews, and focus group discussions with farmers. Both open-ended and closed-ended questions were included to capture the breadth of farmers' experiences and constraints. The interview schedule incorporated structured, semi-structured, and unstructured components to enable in-depth responses and generalization of findings. The study was undertaken during the year 2025.

Analytical Tools and Techniques

The data collected from the field survey were systematically processed through examination, categorization, coding, editing, tabulation, and interpretation. Standard statistical tools such as frequency, percentage, and average values were employed to summarize and analyze the data. Specific marketing indicators marketing cost, marketing margins, producer's share, and marketing efficiency were estimated to assess the performance of cardamom marketing channels in Idukki. In addition, efforts were made to identify and rank the major problems encountered by farmers in the marketing process.

- Marketing Channel: Commonly referred to as the distribution channel, this includes the individuals, groups, and institutional arrangements involved in moving cardamom from producers to final consumers. The channels were identified through primary surveys using structured interview schedules.
- Total Marketing Margin (MM): At any stage of marketing, the margin accrued by intermediaries was estimated as:

$$MMi=SPi–(PPi–MCi)$$

Where:

- MMi = Marketing margin of the ith middleman *S*
- SPi = Selling price of the ith middleman
- PPi = Purchase price of the ith middleman
- MCi = Marketing cost incurred by the ith middleman

- Total Marketing Cost (MC): The overall marketing cost was estimated by accounting for the expenses incurred from the time of harvest until the product reached the final consumer. This included packing, loading, unloading, transportation, storage, handling, weighing charges, and market fees.

$$\text{Total MC}=(\text{Weighing}+\text{Packing}+\text{Loading Cost})+\text{Transportation}+\text{Taxes}+\text{Other Charges}$$

- Growers' or Producers' Share (Gs): This was measured as the proportion of the price received by the farmer relative to the final consumer price, expressed in percentage:

$$Gs=Cp/Gp\times100$$

Where:

- Gs = Producer's share in consumer rupee
- Fp = Price received by farmer
- Cp = Price paid by consumer

$$MME = FP / (MC + MM)$$

Where:

- MME = Modified measure of marketing efficiency
- FP = Price received by farmer
- MC = Total marketing cost
- MM = Marketing margin

- Constraints in Marketing of Cardamom: To systematically identify and prioritize the marketing constraints faced by farmers in Idukki, Garrett's Ranking Technique was employed.

The rank given for the ith factor by the jth respondent (Rij) and the total number of factors ranked by the jth individual (Nj) were used to calculate percent position, which was then converted into scores using Garrett's conversion table. The total and mean scores for each factor were computed, with the highest mean score indicating the most severe constraint perceived by the farmers.

Justification for Using Garrett's Ranking Technique: This method was chosen because it minimizes subjectivity in analyzing farmers' opinions. While direct ranking methods may lead to bias or inconsistency, Garrett's technique converts ranks into quantitative scores, thereby allowing a more reliable comparison of multiple constraints. It provides a clear, statistically valid way to prioritize issues based on the collective perception of respondents, which is essential in studies involving socio-economic and behavioral factors like marketing.

FINDINGS AND DISCUSSION

Marketing Channels

Marketing channels represent the pathways through which cardamom produced by farmers in Idukki reaches the final consumers. Based on the primary survey carried out among the sample farmers in 2025, three major marketing channels were identified in the study area:

- Channel I: Producer → Primary Wholesaler → Retailer → Final Consumer
- Channel II: Producer → Commission Agent → Wholesaler → Retailer → Final Consumer
- Channel III: Producer → Direct Sale to Consumers (farm gate/local market)

The majority of farmers in Idukki preferred Channel I for selling their cardamom. This is because primary wholesalers usually visit villages and directly purchase from farmers, thereby reducing producers' burden of transportation and minimizing marketing costs. Consequently, farmers realized higher net income and greater convenience in Channel I.

Channel II was found to be the lengthiest and least efficient channel, involving three intermediaries before the produce reached the consumer. The presence of commission agents reduced the producer's net share, as part of the price was absorbed as commission charges.

A small proportion of farmers also sold their produce directly at farm gates or nearby village markets (Channel III). Though this ensured complete elimination of intermediaries and higher producer share, the scale of such transactions was very limited and restricted mostly to local demand.

Marketing Margin and Producer's Share (Gs)

The marketing margins and producer's share in consumer rupee were analyzed for each channel. Results revealed:

- In Channel I, the net price received by the producer was ₹3,417.50/kg (producer selling price ₹3,420/kg less producer marketing cost ₹2.50/kg).
- In Channel II, the net price received by the producer was ₹3,380.00/kg.
- The total marketing margin (retailer/consumer price − net producer price) was ₹82.50/kg in Channel I and ₹120.00/kg in Channel II. The greater number of intermediaries in Channel II increased overall marketing costs and margins at the expense of farmers' income.
- The producers' share in consumer rupee was 97.6% in Channel I and 96.6% in Channel II. The higher share in Channel I indicates better efficiency due to fewer intermediaries.
- Among intermediaries, retailers accounted for the largest marketing margin in both channels, reflecting their stronger bargaining power and role in final price formation.

These findings highlight that while multiple marketing channels exist in Idukki, Channel I offer relatively better efficiency and returns for farmers, whereas Channel II demonstrates how commission agents and additional intermediaries reduce farmer incomes.

Table 1: Price build-up, margins and producer's share (₹/kg)

Sl. No.	Particulars	Amount (Rs/kg)	
		Channel I	Channel II
1.	**Particulars**	**Channel I**	**Channel II**
2.	Retailer's (consumer) price	3,500.00	3,500.00
3.	**Producer's selling price (to wholesaler / commission agent)**	3,420.00	3,420.00
4.	Marketing cost incurred by producer	2.50	—
5.	**Net price received by producer (after producer costs / deductions)**	**3,417.50**	**3,380.00**
6.	Commission agent's marketing cost	—	42.50
7.	Commission agent's margin	—	30.00
8.	Commission agent's sale price to wholesaler	—	3,450.00
9.	**Wholesaler's purchase price**	**3,420.00**	**3,450.00**
10.	Wholesaler's selling price to retailer	3,500.00	3,500.00
11.	**Total marketing margin (retail price − net producer price)**	**82.50**	**120.00**
12.	**Producer's share in consumer rupee (%)**	**97.6**	**96.6**

The results clearly show that Channel I provide a higher producer's share compared to Channel II. Although the percentage difference seems small, the absolute reduction in farmer income due to commission charges in Channel II is significant.

Marketing Cost

The marketing cost of cardamom in Idukki was assessed by considering the expenses incurred from the time of harvest until the produce reached the ultimate consumer. These primarily include transportation and packing costs.

Table 2. Marketing Cost Incurred by Cardamom Producers in Idukki (2025)

Sl. No.	Particulars	Amount (Rs.)
1.	Transportation cost per bag	100
2.	Packing cost per bag	20
Total		**120**

(1 Bag = 50 Kg)

Compared to bulky agricultural commodities, cardamom has relatively low marketing costs per unit due to its low volume–high value nature. The dried capsules are usually packed in polythene-lined jute bags for safe transport and preservation of quality. On average, producers incurred ₹120 per bag, with transportation forming the bulk of this expenditure.

Marketing Efficiency

The efficiency of the cardamom marketing system in Idukki was measured using Acharya's Modified Marketing Efficiency (MME) model. Marketing efficiency improves when margins of intermediaries are lower, and the producer's share in the consumer rupee is higher.

The analysis revealed that:

- Channel I had higher efficiency due to fewer intermediaries, leading to lower marketing margins and a higher net price for producers.
- Channel II was less efficient because of the presence of commission agents, which reduced producer returns and increased total margins.

Table 3. Marketing Efficiency of Cardamom Marketing Channels in Idukki (2025)

Particulars	Channel I (₹/kg)	Channel II (₹/kg)
Retailer's sale price (consumer)	3,500.00	3,500.00
Total marketing costs (MC)	6.50	6.50
Total net margin of intermediaries (MM)	82.50	120.00
Net price received by farmer (FP)	3,417.50	3,380.00
MME = FP / (MC + MM)	**38.39887640449438**	**26.719367588932805**
MME (rounded)	**38.40**	**26.72**

MME = Modified Measure of Marketing Efficiency

Marketing efficiency, measured by Acharya's Modified Measure (MME = FP / (MC + MM)), was 38.40 for Channel I and 26.72 for Channel II. This shows that Channel I is more efficient, as fewer intermediaries and lower costs increase farmers' returns.

Constraints in Marketing of Cardamom

Although Idukki remains the largest producer of small cardamom in India, farmers continue to face significant challenges in marketing their produce. Productivity in the district has been affected in recent years by pest infestations, climate variability, and soil degradation, while marketing constraints further reduce farmers' income security.

For analyzing these issues, Garrett's ranking technique was applied, where farmers were asked to rank the major constraints they experienced during the marketing process. The five key factors considered were:

- Price fluctuation in the market
- Limited access to organized markets
- High commission charges
- Inadequate transportation facilities
- Lack of adequate government support and incentives

The survey revealed that price volatility was the most critical challenge faced by farmers in Idukki. Global cardamom prices have witnessed extreme fluctuations in recent years. For example, while average prices exceeded Rs. 3,000/kg in 2019, they dropped sharply to below Rs. 800–900/kg in 2024–25, largely due to oversupply, reduced export demand in West Asian countries, and increased competition from Guatemala. Such volatility severely impacts the financial stability of smallholder farmers, making it the top-ranked constraint.

The second major issue identified was limited access to organized markets. Many small farmers depend on local traders or commission agents due to lack of knowledge about auction centers, e-auctions, or direct export opportunities, thereby receiving lower returns for their produce.

High commission charges were ranked third, with farmers reporting that intermediaries and auctioneers absorb a considerable share of the profit margin. In several cases, commission rates are perceived as excessive and non-transparent, leaving farmers with minimal bargaining power.

The fourth-ranked constraint was unsatisfactory transportation facilities. Cardamom-growing villages in Idukki are often located in remote hilly terrains with limited road connectivity, making it difficult to transport produce efficiently to the auction centers or main markets, thereby adding to overall marketing costs.

Finally, the fifth-ranked issue was the lack of timely government support or incentives. Farmers reported that although schemes and subsidies exist, they are either irregularly implemented or inaccessible due to poor extension services. Limited awareness about quality certification, grading standards, and export facilitation schemes also restricts farmers from achieving better market returns.

Table 4: Farmers' Perception on Constraints in Marketing of Cardamom in Idukki (2025)

Sl. No.	Factor	Mean Score	Rank
1	Price fluctuations in the market	67.50	I
2	Limited access to organized markets	57.50	II
3	High commission charges	38.75	III
4	Inadequate transportation	34.16	IV
5	Lack of government support	32.08	V

The analysis shows that price volatility is the most critical issue, with prices falling sharply from over ₹3,000/kg in 2019 to below ₹900/kg in 2024–25 due to oversupply and global demand shifts. Farmers also ranked limited access to organized markets and high commission charges as significant constraints. Poor transportation in hilly terrains and inadequate government support further aggravated these challenges.

CONCLUSION

Cardamom, popularly known as "green gold," holds immense socio-economic significance in Kerala's Idukki district due to its high export value and role in sustaining rural livelihoods. The study revealed that despite its commercial importance, marketing is constrained by severe price fluctuations, dependence on intermediaries, limited access to organized markets, and inadequate transportation. The analysis further showed that longer marketing channels reduced the producer's share in the consumer rupee, while shorter channels proved more efficient and profitable.

To overcome these issues, measures such as strengthening market linkages, expanding e-auction access, promoting scientific post-harvest practices, and ensuring greater farmer participation through producer organizations are essential. Policy interventions, including training programs, infrastructure development, and timely incentives, would further enhance efficiency and farmer incomes.

In summary, addressing these marketing challenges is crucial for enhancing the sustainability and competitiveness of Idukki's cardamom sector. By adopting targeted strategies and innovations, Kerala can safeguard its cardamom heritage while ensuring sustainable livelihoods for smallholder farmers.

References

1. Ao, W., & Jamir, B. K. (2020). Application of Garrett ranking technique in studying the problems of bamboo cultivation: A case study of Mokokchung district, Nagaland. Indian Journal of Hill Farming, 33(2), 311–315.
2. George, M., & Cherian, E. (2017). The emergent global marketing challenges for Kerala cardamom producers vis-à-vis the role of the Spices Board of India. In InSITE 2017 Proceedings (pp. 905–906). Informing Science Institute. https://doi.org/10.28945/3709
3. Gurung, N., Chamling, N., Barman, D., & Tamang, D. (2020). Large cardamom: Its constraints and strategies for better production in Sikkim and hilly districts of West Bengal: A review. International Journal of Chemical Studies, SP-8(4), 478–480. https://doi.org/10.22271/chemi.2020.v8.i4h.10277
4. Murugan, M., Kuruvilla, A., Devi, I., Sabu, S. S., Mathews, N., & Ashokkumar, K. (2024). Governance and strategies to address constraints for the revival of the Indian small cardamom sector. Journal of Current Opinion in Crop Science, 5(2), 125–144. https://doi.org/10.62773/jcocs.v5i2.250
5. Paul, J., & Somanath, G. (2022). E-marketing of small cardamom in Kerala: Constraint-benefit analysis. Bhartiya Krishi Anusandhan Patrika, 37(4), 399–402. https://doi.org/10.18805/BKAP552
6. Pradhan, D., Kumari, G., & Das, K. K. (2022). Marketing of large cardamom and its related problems in the sub-Himalayan regions of West Bengal. Journal of Extension Education, 34(3), 6856–6863. https://doi.org/10.26725/JEE.2022.3.34.6856-6863
7. Pun, A. B. (2019). A review on different factors of large cardamom decline in Nepal. Asian Journal of Research in Crop Science, 2(4), 1–6. https://doi.org/10.9734/AJRCS/2018/46732
8. Sharma, E., Sharma, R., Sharma, G., Rai, S. C., Sharma, P., & Chettri, N. (2008). Values and services of nitrogen-fixing alder based cardamom agroforestry systems in the Eastern Himalaya. In D. J. Snelder & R. D. Lasco (Eds.), Smallholder Tree Growing for Rural Development and Environmental Services (pp. 391–407). Springer. https://doi.org/10.1007/978-1-4020-8261-0_19
9. Spices Board of India, Ministry of Commerce and Industry. (2024). Annual report 2023–24. Government of India. https://www.indianspices.com/about-us/annual-reports.html
10. Price discovery and market efficiency of cardamom in India. XJM: Crossroads Journal of Management, 19(1), 28–48. https://doi.org/10.1108/XJM-11-2020-0215