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Marketing of Large Cardamom and its Related Problems in the Sub-Himalayan regions of West Bengal

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ABSTRACT

The study was conducted among 60 farmers from two blocks of Kalimpong district in West Bengal to analyze the marketing of large cardamom alongside various marketing channels involved during the marketing process using proportionate random sampling method. Garrett's ranking technique was used to identify the major constraints faced during marketing of large cardamom. The study identified two major marketing channels; majority of the farmers sold their produce to the main wholesaler in the neighboring market, who further transports it to the retailer, selling it to the consumers. Marketing efficiency and percent producers share in consumer rupee was found to be high in case of channel I than channel II due to the presence of fewer intermediaries in channel I. Major marketing cost incurred by the producers was found to be higher during transportation and packing of large cardamom bags. On an average,e the price incurred by the producers was calculated to be Rs. 120/ bag. Price fluctuation of produce in the market was the major problem ranked by majority of the farmers. Information regarding market especially concerning the prevailing price rate should be circulated and immediate focus should be given to up skill the farmers regarding grading and quality standards assistance from the concerned line department(s).

Keywords*: Cardamom; Marketing, Constraints, Producers Share; Efficiency; Intermediaries; West Bengal*

INTRODUCTION

The share of Agriculture and Allied Sectors in Gross Value Added (GVA) of the country during 2020-21 at current prices was 20.2 % with only 13.1% of the total gross cultivated land. Horticulture contributes 33 % of the agricultural GDP, where spices and aromatic plants together form an important part of our export earnings. The export of spices ranks fourth among agricultural commodities contributing 41% of the total export revenues from all horticulture crops in the nation. The total quantity of spices being exported from India has increased drastically over the years. The exports crossed a historic landmark of 4 billion US$ for the first time during 2020-21 (Annual report, 2022) Spice Board of India). Both, large and small cardamom significantly contributes to the export of spices. When compared to the previous year, the export of small and large cardamom experienced an exponential growth of 63% in quantity.

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Large Cardamom (*Amomum subulatum*) commonly referred to as 'black gold' or 'black cardamom' and locally called as alaichi has a fascinating aromatic essence. It is said to be originated from Sikkim, India, and is widely grown in the eastern Himalayan nations of Nepal, Bhutan and northeast India (Sharma et al 2008). With 54% global production share, India is the country that produces the largest quantity of large cardamom. Large Cardamom is used as an essential ingredient in mixed spices preparation and is also used for flavoring vegetables and many food preparations. Apart from its aromatic smell it also has high medicinal value, it is reported that large cardamom seeds are used for preventive and curative purpose for troubles in throat, lungs congestion, eyelids inflammation, disorders regarding digestion and also for the treatment of pulmonary tuberculosis (Gurung et.al., 2020).

The top producers of large cardamom in India are Sikkim and districts of Kalimpong and Darjeeling in West Bengal (Sharma et al 2008). It has been an important cash crop in the Sub-Himalayan regions of Kalimpong and Darjeeling since time immemorial. With a large variety of commercially significant horticultural crops grown, the northern region of West Bengal has the potential to be a hub of horticultural activity. Large cardamom farming has been an essential source of income for most of the farmers residing in remote hilly areas of Kalimpong and Darjeeling districts. The cultivation, harvesting, and processing of large cardamom is done mainly through traditional methods in the hilly regions. According to the estimation of Spice Board of India, approximately 9893 families are engaged in the cultivation of large cardamom due to its economic returns and suitability to agro climatic condition of the region. It has a great export potential and low initial investment needed with substantial profits received.

However, many farmers are unable to expand their production into huge areas due to various marketing issues and price fluctuations at the time of marketing. The problem has gotten worse due to the unfavorable positions that market agents have played in order to gain the lion's share of the vast cardamom market. This study examines the present scenario of the large cardamom marketing system and the issues related to it. The study is recommended to improve marketing access to rural farmers with possible efforts in identification of potential domestic and international markets which could help farmers to receive higher price

METHODOLOGY

Based on primary and secondary data, the current study on large cardamom was undertaken. Obtaining relevant information required gathering of available literature, identification of the situation at the important location, and personal observations. Secondary information and observations were obtained from published articles, official publications and online journals, among other sources.

Description of the Study Area and Sample Size

The study was conducted in Kalimpong district of West Bengal, India, which was chosen purposively as it is one of the largest producers of large cardamom in the state. Kalimpong district comprises three developmental blocks: Kalimpong-I, Kalimpong-II and Gorubathan. Out of the three blocks, Kalimpong-I and Kalimpong-II were selected purposively for the study. Two villages from each block of Kalimpong I and Kalimpong II were selected at random for the study. Selection of the respondent households was done through proportionate random sampling method. A total of 60 large cardamom growing households were selected from Kalimpong I and Kalimpong II. Primary approaches, including questionnaires, key- informant interviews and

focus group discussions were utilized to gather information and identify the genuine issues, which were primarily encountered by cardamom farmers. A variety of open-ended and closed-ended questions were posed to the target groups. The interview schedule comprised all three types of questions: structured, semi-structured, and unstructured in order to generalize results. The study was undertaken during the year 2019-2020.

Analytical Tools and Techniques

Data processing was carried out by examining, categorizing, coding, editing, tabulating and recombining information. To calculate frequency, percentage, and average values from the gathered data, standard statistical methods were used. Marketing cost, marketing margins, producer share and marketing efficiency were estimated as mentioned below. An effort was also made to find out different problems faced by the farmers during the marketing process.

Marketing channel: Commonly known as the distribution channel. The people, individuals, teams, and actions necessary to move ownership or possession of products from the point of production to the point of consumption. The marketing channel was identified with the help of primary survey that was carried out using interview schedule.

Total Marketing Margin (MM): At any point in the marketing process, the marketing margin

of its intermediaries was determined as follows

MMi = SPi – (PPi – MCi)

Where:

MMi = Marketing margin of the *i* th middlemen

SPi = Selling price of the *i* th middlemen

PPi = Purchase price of the *i* th middlemen

MCi = Marketing cost incurred by the *i* th middlemen

Total Marketing Cost (MC): By evaluating the expenses related to the marketing of large cardamom, marketing costs were computed. The cost of marketing is often expended from the time the product is harvested until it is in the hands of the final consumer. It comprises labor costs for packing, loading and unloading as well as transportation costs, handling costs, storage costs, market fees, weighing charges, and market fees.

Therefore,

Total Marketing Cost (MC) = Cost which includes (weighing +packing +loading cost)

+Transportation tax + other associated tax

Growers or Producers share (Gs): It refers to the price received or obtained by the cardamom growers and is expressed in percentage with respect to the ultimate consumer's price.

Gs = Gp / Cp (Where, Gp: grower's price; Cp: consumer's price)

Marketing Efficiency: It is the efficiency and the degree of market performance for various identified marketing channels. Acharya's model of marketing efficiency was used to calculate the marketing efficiency for different channels

MME= FP/ (MC +MM)

Where,

MME = Modified measure of index of marketing efficiency

FP = Price received by farmer; MM = Marketing margin; MC = Total marketing cost

Constraints in Marketing of Large Cardamom

The study attempts to understand the constraints in marketing of large cardamom in the study area for the purpose of which Garrett's ranking technique was followed.

Garrett's Ranking Technique

To identify and rank the preference designated by the respondents on various factors of marketing in the study area Garrett's ranking technique was followed (Ao and Jamir, 2020)

Where,

Rij = Rank given for the i th variable by j th respondents

Nj = Number of variable ranked by jth individual

Using the help of Garrett's table, the percent position which was calculated is converted into scores. After that for every single factor, the scores given by each respondent are added and a total number of scores and its mean values are calculated. The components having the maximum or highest mean value is considered to be the most crucial factor.

FINDINGS AND DISCUSSION

Marketing Channel

Marketing channels are routes through which agricultural products move from producers to consumers. Two marketing channels were identified in the study area with the help of primary survey that was carried out using interview schedule *viz*.,

CHANNEL I: Producer - Whole seller - Retailer - Final consumer

CHANNEL II. Producer - Commission agent's- Whole seller- Retailer -Final consumer

Majority of the producers sold their produce to the primary whole seller from where it is further transported to the retailer which finally reaches the final consumers (Channel I). Since the primary wholesalers from channel I personally visited the producers to collect the produce, large portion of produce is transacted through channel I encouraging the producers to sell their produce to such buyers as it minimizes the producer's marketing costs, increasing their net income. Therefore, it was found that mostly farmers sold their produce to the final consumers using channel I due to less number of intermediaries and better efficiency.

Channel II was the longest channel out of the two, involving three various intermediaries between the producer and the consumer. Besides, the producers also sold cardamom, directly to the customers (consumers) at the farm or nearby village market. Customers in this instance went directly to the producers and purchased the produce from the farm or market in response to their needs. The use of a local vehicle (taxi), for which the producers were required to pay, was used for transportation.

Marketing Margin and Producers share (Gs)

The marketing margin involved in channel I and channel-II is presented in table 1, which is determined in per kilogram basis. From the given table we can understand that the net price received by the producer in Channel I is Rs. 417.5 and in Channel II is Rs. 380, the amount received by the producer in channel I is higher as the producer directly sells the produce to the whole seller and not via. commission agents. The total marketing margin in channel I and channel II was estimated to be Rs. 84 and Rs. 126.5 per kilogram respectively. Since channel II comprises the most

intermediaries, it makes sense that it had the greatest total marketing margin. The amount of marketing margin involved in the transaction increases as the number of intermediaries in a marketing channel increases. Percent producers share in consumer rupee was found to be higher in case of channel I (83.5%) than channel II (76%) due to the presence of fewer intermediaries in channel I. It was found that the maximal amount of marketing margin was earned by the retailers in both the channels.

Table 1: Estimation of Percent Producer's Share in Consumer Rupee and Marketing Margin

Sl. No.	Particulars	Amount (Rs/kg)	
		Channel I	Channel II
1.	Net price received by the producer	417.5	380
2.	Marketing price incurred by producer	2.50	-
3.	Producer selling price to wholesalers	420	-
4.	Producer selling price to commission agent	-	380
5.	Marketing cost incurred by commission agents	-	2.50
6.	Commission agent sale price to wholesalers	-	420
7.	Margin of commission agent	-	42.5
8.	Marketing price incurred by the wholesalers	4.0	4.0
9.	Selling price of wholesalers to retailer	450	450
10.	Margin of wholesalers	34	34
11.	Marketing cost incurred by retailer	-	
12.	Selling price of retailer to consumer	500	500
13.	Margin of retailer	50	50
14.	Total margin	84	126.5
15.	%Producers share in consumer Rupee	83.5	76

Marketing Cost

The cost of marketing large cardamom, which comprised the cost incurred from the time the output was harvested until it was in the hands of the ultimate consumer, was assessed.

When producers offer their products on the open market, there are marketing expenses involved. Marketing cost incurred by the producers of cardamom is depicted in Table no. 2

Table 2. Marketing Cost Incurred by the Producers

Sl. No	Particulars	Amount (₹)
1.	Transportation cost for 1 bag	100
2.	Packing Cost for 1 bag	20
Total		120

(1 Bag = 50 Kg.)

When compared to other bulky agricultural products, large cardamom has a relatively low marketing cost per unit of produce because it is a low-volume, high-value commodity. The major cost incurred by the producers during the marketing of large cardamom included transportation cost and packing cost. Dried capsules of large cardamom are generally packed for marketing in jute bags which are polythene-lined. Transportation cost for each bag which comprised of 50 kilograms of dry capsule of large cardamom was found to be ₹ 100 i.e. ₹ 2/ kg and packaging charge for each bag is ₹ 20. On an average the producers incurred ₹ 120/ bag.

Marketing Efficiency

Efficiency of the marketing system is ensured by a lower marketing margin and higher producers' share on retail price. Marketing efficiency declines as the number of intermediaries rises. In essence, market performance is measured by market efficiency. Acharya's method of modified marketing efficiency calculation approach was used to determine market efficiency. Table 3 shows that the market efficiency of channel I and channel II, which was recorded to be 4.6 and 2.8 respectively. It was found that channel I has higher marketing efficiency as compared to channel II due to due to the existence of fewer intermediaries, leading to lower marketing margin and higher percent producer's share in consumer rupee. Rural farmers should be given knowledge and information by various governmental organizations such as spice board, KVK and farmer's organization about different marketing channel, marketing margin, improve marketing access with possible efforts in identification of potential domestic and international markets which could help farmers to receive higher price in the near future.

Table 3: Marketing Efficiency in Channel I and Channel II.

Particulars	Channel I(Rs. /kg)	Channel II(Rs. /kg)
Retailer's sale price	500	500
Total marketing costs	6.50	6.50
Total net margin of intermediaries(MM)	84	126.5
Net price received by farmer	417.5	380
MME*	4.6	2.8

MME = Modified measure of marketing efficiency

Constraints in Marketing of Large Cardamom

Besides being the largest producer, large cardamom output has seen a decline in productivity since 2010, and many cardamom orchards have fallen as a result of viral infections, wilting and price fluctuations in the market (Pun, 2019). In case of constraint analysis for marketing of large cardamom Garrett's ranking technique was followed , five factors were considered *viz*., less access to the market, unsatisfactory means of transportation, high commission charges, no incentives from government and price fluctuations in the market. The majority of the farmers who responded identified price volatility of produce in the market as their main issue. According to an Indian Spice Board study, the price of large cardamom dry produce per kilogram was roughly ₹ 1500 in 2015. The cardamom's current value has drastically decreased to ₹ 420 per kg. So, this issue was given the top spot.

The second rank was taken by less access to the market (II rank), the rural farmers do not have proper knowledge and idea about various marketing strategies and different market places like Siliguri, Kolkata and Guwahati where the farmers can directly sell their produce to exporters and receive remunerative price for their produce.

Third rank was taken by high commission charges (III rank), the farmers expressed their grief that the majority share or marketing margin is grasped by the retailers and middlemen. Most of the farmers brought to light of the poor transportation facilities in the rural areas. Therefore,unsatisfactorymeansoftransportation bagged IV rank. During the survey they expressed that local taxi was unavailable in many places which causes them great inconvenience in reaching even the main Kalimpong market. The fifth and last rank was assigned to no incentives from government (V rank). The farmers in the study area communicated that the no incentives were provided by the government for their crop, they also added that the government officials from various departments do not visit timely, so they do not have proper knowledge about various new schemes.

Table 5: Farmers Perception on Constraints In Marketing of Large Cardamom

Sl. No .	Factor	Sum of the Scores	Mean	Rank
1	Less access to the market	3450	57.5	II
2	Unsatisfactory means of transportation	2050	34.16	V
3	High commission charges	2325	38.75	IV
4	No incentives from government	3125	52.08	III
5	Price fluctuation of produce in the market	4050	67.50	I

CONCLUSION

Large Cardamom (*Amomum subulatum*) locally known as '**alaichi**' is also well- known as black gold in the local hilly areas by virtue of its pleasant aroma and exportable capability. '*Alaichi*' grown in the Sub-Himalayan regions of North Bengal is found to be not only of good quality but is also proved to be highly economical and profitable to the farming community, directly or indirectly improving their socio-economic status and standard of living. The main challenge that Himalayan farmers are experiencing is the low market price brought on by poor processing.

Farmers should be encouraged to shift towards scientific curing method from traditional

bhatti method as the traditional method of curing results in discoloration of the dry capsule, leaving a burning smell due to over- heating resulting in deteriorating the quality of the produce leading to price fluctuation. The study revealed that the length of the channel has a direct correlation with marketing cost and margin, which means that the longer the channel, the greater the marketing cost and margin. According to the analysis, channel I had a greater marketing cost and profit margin than channel II. As a result, it was determined from the study that length of the channel had an adverse effect on the marketing effectiveness. The farmers chose channel I since it featured less middlemen's interference and offered better prices. The Spice Board of Kalimpong may take actions through visits and training programmes to encourage and educate the farmers regarding different scientific practices, marketing channels and strategies, government schemes and their assistance etc. and motivate the farmers to produce quality cardamom using cutting-edge technologies that will have more demand in the domestic and international market

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