

**EFFICIENCY IN THE PRICE DISCOVERY OF CARDAMOM  
THROUGH e-AUCTION**



By

**RESHMA RAMESH (2015-31-007)**



**MAJOR PROJECT REPORT**

**Submitted in partial fulfillment of the**

**requirements for the post graduate degree of**

**MBA IN AGRIBUSINESS MANAGEMENT**

**Faculty of Agriculture**

**Kerala Agricultural University**



**COLLEGE OF CO-OPERATION BANKING AND MANAGEMENT**

**VELLANIKKARA, THRISSUR-680 656**

**KERALA, INDIA**

**2017**

***DECLARATION***

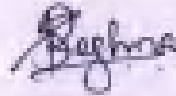
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## **DECLARATION**

I, hereby declare that this project entitled “**EFFICIENCY IN THE PRICE DISCOVERY OF CARDAMOM THROUGH e-AUCTION**” Is a bonafide record of research work done by me during the course of project work and that it has not previously formed the basis for the award to me for any degree/diploma, associate ship, fellowship or other similar title of any other University or Society.

Vellanikkara,

30-10-2017



**RESHMA RAMESH (2015-31-007)**

***CERTIFICATE***

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## CERTIFICATE

Certified that this project report entitled “**EFFICIENCY IN THE PRICE DISCOVERY OF CARDAMOM THROUGH e-AUCTION**” is a bonafide record of project work done by Miss. Reshma Ramesh under my guidance and supervision and that it has not previously formed the basis for the award of any degree, fellowship or associate ship to her.

Vellanikkara  
30-10-2017



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**Prof. Philip Sabu**  
Former Director  
MBA (ABM)  
College of Co-operation Banking & Management  
Vellanikkara

***ACKNOWLEDGEMENT***

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## ACKNOWLEDGEMENT

*I bow my head before the Almighty Lord for showering immense blessings to carry out this research work and guiding our steps all the way through.*

*I am extremely thankful to my research guide **Prof. Philip Sabu** (Former Director, MBA(ABM))College of Co-operation, Banking & Management, Vellanikkara, Thrissur for his valuable support and guidance. I am thankful for his valuable suggestions and encouragement rendered during the study.*

*I remember with much respect and gratitude, the good advices and help of our beloved, Director, **Dr. E.G. Ranjit Kumar MBA (ABM)**, for his great support to conduct this project work.*

*I thank Associate Dean **Mrs. Dr. P. Shaheena**, for all her support and all the teachers of College of Co-operation, Banking and Management, for giving me necessary suggestions. I am also thankful to the library staff of College of Co-operation, Banking and Management, for all the help rendered during the study.*

*I express my heartfelt thanks to **Mr. K. P. Sathian**, Librarian and other library staff of CCBM for all their help throughout my study*

*Wholeheartedly, I thank **Mr. B A Vadiraj Scientist –D &Head (Agronomy And Soils)**, Indian Cardamom Resesarch Institute-Myladumpara , **Dr. Murugan**, Professor and Head – Cardamom Research Station - Pampadumpara, **Mr. Anand Sheon** Marketing Manager-MCX, **Mrs. Priya** Assistant Manager – Kerala State Warehouse Corporation Vandanmedu, **Mr. Venkiteshan** Assistant Director, Common e-Auction Centre Puttady and all the auctioneers, farmers, traders, and exporters, of Cardamom in Idukki district who willingly co-operated with my queries and helped me to accomplish this project work.*

*For any errors or inadequacies that may remain in this work, of course, responsibilities entirely mine.*

RESHMA RAMESH

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**Chapter I**  
**DESIGN OF THE STUDY**

## Chapter 1

### DESIGN OF THE STUDY

#### 1.1. Introduction

India is known as the home of spices and produces a wide range of spices and holds a prominent position in world spice production. Because of the varying climates - from tropical to sub-tropical to temperate, almost all spices grow splendidly in India. Out of the 109 spices recognized by the International Organisation for Standardisation (ISO) world over, 52 are grown in India and promoted by the Spices Board.

Among the spices, Cardamom of commerce, popularly known as “Queen of Spices” is the dried fruit of tall perennial herbaceous plant *Elettaria cardamomum* Manton belonging to the ginger family Zingiberaceae and grows from a thick rootstalk up to around 6-10 feet. It is indigenously grown in the evergreen forests of the Western Ghats in South India. It is one of the most highly priced and exotic spices in the world. Cardamom oil is a precious ingredient in food preparations, perfumery, health foods medicines and beverages.

Based on the nature of panicles, three varieties are recognized viz. Malabar with prostrate panicle, Mysore with erect panicle, and Vazhukka with semi-erect panicle. Indian cardamom is offered to the international markets in different grades: 'Alleppey Green Extra Bold' (AGEB), 'Alleppey Green Bold' (AGB) and 'Alleppey Green Superior' (AGS) are names that register instant appeal worldwide.

#### 1.2. Area, Production and Productivity of Cardamom in India

The global production of small cardamom was approximately 60,000 tonnes, concentrated mainly in India and Guatemala. India is now the second largest producer of cardamom in the world.

India has been the largest producer, consumer and exporter of cardamom till 1980, but thereafter its position was overtaken by Guatemala. In Guatemala, the crop was introduced in 1920, and its production considerably expanded after World War II due to



high market prices and the drop in coffee prices. There is no domestic consumption of cardamom in Guatemala and, therefore, the entire produce is exported. For the past two decades, Indian cardamom is facing serious threat in the world market from Guatemala, which has slowly and steadily encroached into the traditional Indian export markets. Currently, Guatemala has emerged as the top producer and exporter of cardamom in the world with an average production of around 36,000 tonnes during the year 2016-17 (<https://guatemalacardamom.wordpress.com>) and India has been relegated to the second position with an annual production of 19,625 tonnes during 2016-17 ([www.indianspices.com](http://www.indianspices.com)). And the cost of production of cardamom in India is relatively higher than Guatemala, while it costs around Rs. 350 to Rs. 400 in India, it costs only Rs. 150 to Rs. 200 in Guatemala to produce 1 kg of cardamom.

**Table No. 1.1. Area, Production and Productivity of Cardamom in India**

<b>Year</b>	<b>Area (In Hectares)</b>	<b>Production (In Tonnes)</b>	<b>Productivity (Kg/Ha)</b>
2007-08	73112	11800	161.3962
2008-09	71170	11000	154.5595
2009-10	71110	10075	141.6819
2010-11	71012	10380	146.1725
2011-12	71285	15000	210.423
2012-13	69870	14000	200.3721
2013-14	69970	16000	228.6694
2014-15	69970	18000	257.2531
2015-16	70080	23890	340.8961
2016-17	70080	19625	280.0371

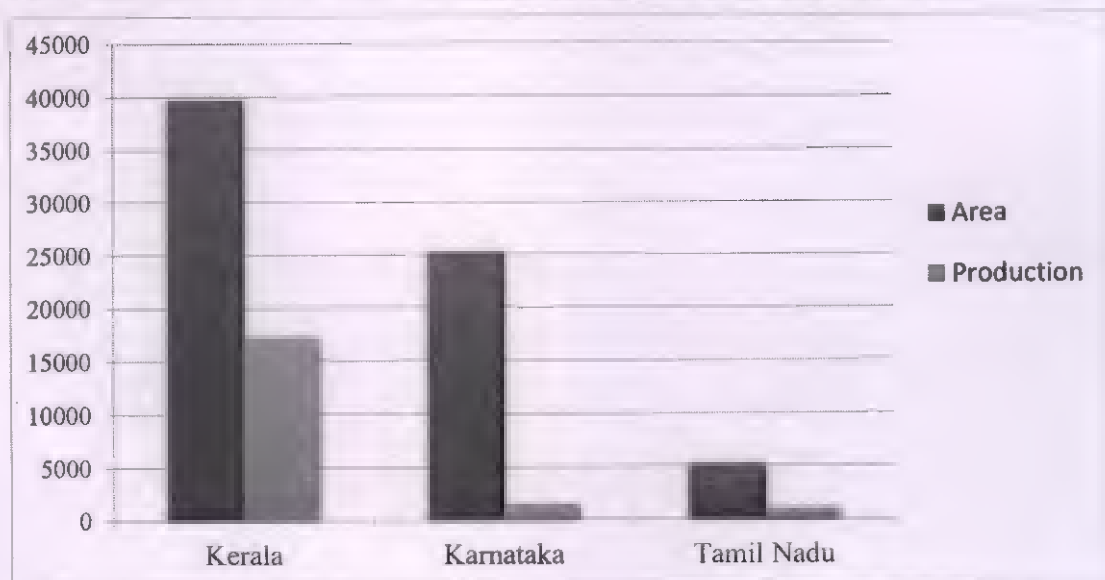
**Source:** [www.indianspices.com](http://www.indianspices.com)

The above table shows the area, production and productivity of cardamom during the period from 2007-08 to 2016-17 in India. The production and productivity of cardamom showed a fluctuating trend over the years. Productivity which was more or less stagnant around 161 kg /ha in the 2007-08 has declined to 141 kg / ha and then improved to the level of around 257 kg per hectare by 2014-15 and increased to 340 kg/ha in 2008-09 and then declined to 280 Kg/ha in 2016-17. Area under cultivation remained almost the same for most of the years. However, in recent times the productivity has increased marginally. The total cardamom cultivating area still remains almost the same with only a marginal variation. However, over the period of 10 years the cardamom cultivation in the country has declined from 73112 ha to 70080 ha.

### 1.3. State-wise Area and Production of Cardamom in India 2016-17

The cardamom cultivation in India is concentrated on the Western Ghats area and it is also termed as Cardamom hills. The states in India that are indulged in the production of cardamom are Kerala, Karnataka and Tamil Nadu.

**Chart 1.1. State-wise Area and Production of Cardamom in India 2016-17**



**Source:** [www.indianspices.com](http://www.indianspices.com)

The total area under cardamom cultivation in India in 2016-17 was estimated at 70080 ha spread over Kerala (57 per cent), Karnataka (36 per cent) and Tamil Nadu (7

per cent). And also Kerala was the major contributor of cardamom to the country having a share around 87 per cent (17215 tonnes) in the total production of around 19625 tonnes. Karnataka shared around 8 per cent (1435 tonnes) and Tamil Nadu shares 4.96 per cent (975 tonnes). The major cardamom growing district in Kerala is Idukki which accounted for about 80 per cent of the total area in the state.

#### 1.4. Area, Production and Productivity of Cardamom in Kerala

In India, Kerala is the biggest producer of cardamom and supplies both for local and the international markets. Cardamom is one of the important plantation crops in Kerala. Idukki district in Kerala is the major cardamom-producing area and places such as Udumbanchola taluka, Peermede taluka and Devikulam taluka are important centres in Idukki district. The area, production and productivity of cardamom in Kerala are shown in Table 1.2.

**Table 1.2. Area, Production and Productivity of Cardamom in Kerala**

Year	Area (In Hectares)	Production (In Tonnes)	Productivity (Kg/Ha)
2011-12	41600	11440	275
2012-13	39660	11350	286
2013-14	39730	14000	352
2014-15	39730	16000	403
2015-16	39680	21500	542
2016-17 (EST)	39680	17215	434

Source: [www.indianspices.com](http://www.indianspices.com)

It is obvious from the table that the production and productivity of cardamom showed an increasing trend during the period from 2011-12 to 2015-16. Productivity which showed an increasing trend reached 542 kg/ha in 2015-16 from 275 kg/ha in 2011-12. But during 2016-17 the production fell to 17215 tonnes and declined to 434 kg / ha, due to adverse climatic condition.

Area under cultivation remained almost the same with marginal variations. While the area under cardamom in the country declined from 73112 ha to 70080 ha in the period of 10 years, in Kerala it came down from 41,600 ha to 39,680 ha.

### 1.5. Export of Cardamom from India

The consumption of cardamom has sharply increased throughout the world during the last two decades. The major cardamom consuming countries are: Saudi Arabia, India, Pakistan, United Arab Emirates, Norway, Sweden, Denmark, Finland, Iceland, Germany, Russia, England, United States, and Japan. The countries in the Western Asian region like Saudi Arabia, United Arab Emirates, India, etc have maximum consumption and these countries share around 60% of the world's consumption. In India, the average export of cardamom per annum is around 5 per cent of the total production. The rest is consumed domestically.

Saudi Arabia is the largest export market for Indian cardamom. Coffee consumption appears to be a strong driver of demand for cardamom in Saudi Arabia. Cardamom is mainly used for the preparation of 'Gahwa' or 'Cardamom Coffee'. The Arabs regard serving of 'Gahwa' to guests as a foremost gesture of hospitality. Ready ground cardamom coffee in a retail store in Arabia will typically amount to five or 10 grams of ground spice per 250 grams of coffee. Table 1.3 shows the export of cardamom from India for the period from 2012-13 to 2016-17.

Table 1.3 Export of Cardamom from India

Year	Quantity (tonnes)	Value (Rs. in lakhs)
2012-13	3936.42	30776.23
2013-14	2147.19	19428.17
2014-15	3260.00	256587
2015-16	3472.00	29963.89
2016-17	4973.15	40686.34

Source: [www.indianspices.com](http://www.indianspices.com)

India earned foreign exchange valued Rs. 30776.23 lakhs from an export of 3966 tonnes of cardamom in 2012-13. But during 2013-14, the foreign exchange earnings from cardamom decreased to Rs. 19428.17 lakhs from an export of 2147 tonnes of cardamom. In 2016-17, the foreign exchange earnings from cardamom increased to Rs. 40686.38 lakhs from an export of 4973 tonnes of cardamom.

On the export front cardamom has been facing competition from Guatemala although the quality of Guatemala cardamom is inferior. The country could tide over the challenge by expanding domestic market as the market for cardamom in India is largely domestic and the share of exports is only 25 per cent of the production.

The export of cardamom increased to 4973 tonnes in the year 2016-17 than the previous years as the production in other major countries are affected by adverse climatic conditions.

#### **1.6. Import and Domestic Consumption of Cardamom**

At present, India is the second largest consumer of small cardamom in the world after Saudi Arabia. Current domestic demand for small cardamom has been estimated at 11000 MT. The retail market size in South India is estimated to consume around 30 per cent of this demand for small cardamom.

Industrial consumption of cardamom particularly by the pharmaceutical/ Ayurvedic and cosmetics industry is the highest and accounts for over 45 per cent of the total consumption. Though the urban areas contribute to large share of its consumption, in recent years rural market is also gaining importance and growing at a very high rate. Table 1.3 shows the import of cardamom from India for the period from 2012-13 to 2016-17.

**Table 1.4. Import of Cardamom to India**

Year	Quantity (tonnes)	Value (Rs. in lakhs)
2012-13	4390	16171.24
2013-14	3816	24571.20
2014-15	5035	25634.95
2015-16	4460	35269.53
2016-17	4840	33111.75

Source: www.indianspices.com

There has been an increase in the import of cardamom during the years 2014-15 to 2016-17 due to adverse climatic change. Even if, the quality of Guatemala cardamom is inferior, due to its cheaper rate, it finds its demand by the pan masala producers in the Indian market. Taking into consideration international trade flows (imports and exports) and domestic production, India consumed approximately 19,400 MTs of cardamom in 2016-17.

### 1.7. Marketing of Cardamom in India

From the very beginning of civilization, cardamom was known and used in the Indian subcontinent. The evolution of cardamom marketing is traced in the following paragraphs.

**1498:** Vasco da Gama discovered sea route to India and subsequently the Portuguese established trade relations with the Malabar Coast and traded in pepper, cardamom, cinnamon and ginger.

**18<sup>th</sup> Century:** During the period, cardamom was traded through barter system. The origin of cardamom is believed to be in the rain forests of the Western Ghats in South India. Aborigines in South India collected from Western Ghats and exchanged it with other people for their needs and this type of barter system in cardamom existed up to the end of the eighteenth century.

**19<sup>th</sup> Century:** After realizing the commercial value of cardamom, the Kings of native states of Travancore and Cochin held monopoly over the trade of cardamom in their kingdoms till the end of nineteenth century. The King of Travancore ordered that cardamom should be brought to Alleppey port city for centralized auction. The best quality cardamom was designated “Alleppey Green” and was reserved for export.

Before independence, there was no organised system of marketing for cardamom. The planters, mostly small holders, used to sell their produce to private traders who fixed the price arbitrarily. Admittedly, it was an imperfect market system with no element of competition among the buyers and as such the planters were placed in a very perilous position particularly in the years of surplus crop. The marketing system was more or less identified with unfair practices like underweight of cardamom offered for sale.

After independence (1947), the need to develop and protect spices crops and the plantation sector in India was felt by the Planning Commission in 1951. It recommended the setting up of a committee by the Ministry of Food and Agriculture to consider specific measures for increasing the production and marketing of spices.

The Spices Enquiry Committee thus set up in 1954-55 recommended the formulation of schemes for research, development and marketing of spices. As a result Ministry of Food and Agriculture introduced auction system (manual) for cardamom trading in 1955-56.

In 1966, the All India Spices Development Council, Spices Export Promotion Council and Cardamom Board were established by Government of India to promote the export of spices from India. It helped to boost the foreign exchange earnings from export of spices.

For promoting cultivation and marketing of Cardamom, the Government of India constituted a Cardamom Development and Marketing Advisory Committee in 1963 and the Cardamom Board in 1966 under the Cardamom Act, 1965.

In 1977 the Cardamom (Licensing and Marketing) Act was passed which brought different functionaries like Auctioneers, Dealers and Exporters under the control of the Board. The three market functionaries via, Auctioneers, Dealers and Exporters have to take licenses from the Board to function. However, Cardamom Board was abolished and Government constituted a new Board for all Spices including Cardamom in 1985 under Spices Board Act and all the activities performed by the Cardamom Board and Spices Export Promotion Council are brought under the purview of the Spices Board.

Thus, Cardamom, at present, is having a regulated market by restricting the entry of different functionaries with a view to ensuring fair prices and timely payment of the sale proceeds to the growers.

The Spices Board felt the panacea for all the problems in the marketing of the cardamom was the introduction of auction system. Spices Board enacted cardamom (Licensing and Marketing) Rules 1987, to establish auction (manual) platforms and to regulate the conduct of the various market players.

As per the Cardamom (Licensing and Marketing) Rules, 1987 only the authorised dealers can distribute Cardamom. The Board grants permission for dealing in Cardamom both for internal and export trade. No producer of Cardamom shall sell his produce otherwise than through a Licensed Auctioneer or a Dealer licensed to purchase Cardamom from producer. The aforesaid dealers alone can deal in the distribution of Cardamom in India and abroad. The License holders are exporters, Dealers, Auctioneer and RCM Licensees (Registration Membership Certificate and it enables them to get incentive while exporting cardamom). Dealers are simply license holders, having the right to purchase cardamom from growers or from auctioneers. Contrary to the expectation the manual auction system, did not result in healthy competition at auction hall.

To overcome the problems inherent in the manual auction and also on the appeal of cardamom planters, the Spices Board decided to replace the manual auction system with e-Auction system. E-Auction is defined as the buying and selling or exchange of



commodities through electronic platforms. It aggregates buyers and sellers in electronic marketplace and create value for both buyers and sellers.

In India, the first e-Auction centre for cardamom was introduced in Tamil Nadu on 23<sup>rd</sup> August 2007 at Bodinayakanur with 40 buyer terminals and the first e-Auction centre in Kerala was inaugurated by the Union Minister of State for Commerce, Mr. Jairam Ramesh at Vandenmedu in Idukki district on 28<sup>th</sup> December 2007. This e-Auction centre has 60 buyer terminals. All the manual auction centres hitherto operating in Kumily, Nedumenkandam, Puliyanamala and Thekkady were converged into one single common auction centre at Vandenmedu where auctioneers are held on three days in a week.

E-Auction is beneficial to both cardamom growers and traders by promoting healthy competition among bidders. Trading is electronically monitored and the minimum price is discovered through competitive bidding. The software developed by Tata Consultancy Services is used for e-Auctioning.

In Kerala, the cardamom e-Auction is conducted at Vandenmedu three days a week (Tuesday, Thursday and Saturday). In Vandenmedu e-Auction centre, six auctioneers are licensed to conduct the auction. The auctioneers include one Co-operative society, two public limited companies and three private limited companies from various parts of the state.

The e-Auction centres at Bodinayaknur (Tamil Nadu) functions on three days (Monday, Wednesday and Friday) and the auction is conducted by 6 registered auctioneers. They are Vandenmedu Green Gold Cardamom Producer Co. Ltd., Sugandhagiri Spices Promoters & Traders Pvt. Ltd., Vandenmedu, Idukki District Traditional Cardamom Producer Co. Ltd., Vandenmedu, Cardamom Growers Federation, Bodinayakanur, State Trading Corporation, Bodinayakanur, Cardamom Planters Association-Santhanparai.

Manual auction system still prevails in Karnataka, Mumbai and Kolkata. In Karnataka, cardamom auction is held at Saklespur, Sirsi and Mercara on six days from Monday to Saturday. In total, there were 10 licensed auctioneers in Karnataka. The

manual auction centres at Mumbai (Saturday) and Kolkata (Sunday) functions only for one day in a week. Table 1.4 contains the details of licensed manual auctioneers in India

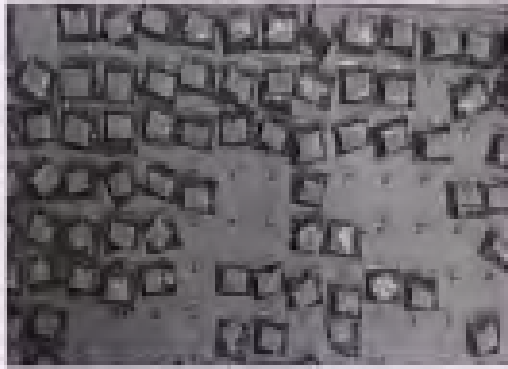
**Table 1.5. Licensed Manual Auctioneers in India**

<b>Karnataka – (Manual auction system)</b>			
Sl. No.	Name of auctioneer	Place of auction	Day of auction
1	Hanbal Nanje Gowda and Bros	Saklespur	Monday
2	Bellur Nanje Gowda and Bros	Saklespur	Tuesday
3	H.S Rengasetty nd Sons	Saklespur	Wednesday
4	Sirisi Taluk Agril Produce Co-operative Society Ltd.	Sirsi	Wednesday
5	Totgar’s Co-operative Society Ltd.	Sirsi	Wednesday
6	Siddapur Taluk Agril Produce Co-operative Society Ltd.	Siddapur	Wednesday
7	Akshya Traders	Sirsi	Thursday
8	Cardamom Auction Centre, Saklespur	Saklespur	Thursday
9	The Kodugu Cardamom Co-operative Society Ltd.	Mercara	Friday
10	Thinmmayya Venkappa Hedge	Sirsi	Saturday
<b>Mumbai – (Manual auction system)</b>			
1	Spices Auction Centre, Mumbai	Mumbai	Saturday
<b>Kolkata – (Manual auction system)</b>			
1	NRB Sales Pvt. Ltd.	Ranpo	Sunday

Sources: Spices Board of India

**Fig. 2 Conduct of Cardamom e-Auction in Idukki District of Kerala**

a) Sample display board



b) Lots put for auction



c) Distribution of cardamom to the dealers



d) Individual account of dealer



e) e-Auction hall with main screen board



f) Bidding of p rice by dealers



## 1.7. Statement of the Problem

Cardamom is an internationally traded commodity. It has got sizeable domestic demand. Cardamom economy is influenced by national as well as international factors. The price of cardamom is subject to change from time to time depending on demand and supply. While the demand side is influenced by money and other factors which include the overall economic development, the supply side is influenced not only by economic factors but also by agro-climatic, biotic, and abiotic stress factors in the growing region. In order to ensure remunerative price to the cardamom growers particularly small growers, auction system was introduced for cardamom from 1955-56 by Govt. of India.

Under manual auction system, the planters could sell either directly to collection centres of auctioneers or to local traders who used to purchase from each house and took their stock to collection centres of auctioneers for auction sale. The collection centres were maintained by the auctioneers in the cardamom growing areas. Later on the auctioneers carried this stock to the respective auction centre and kept for auction sales.

In the manual auction system, the auctioneers showed the samples of each lot put for auction to the dealers. The dealers after examining the colour, shape, size, moisture content, litre weight, etc., tendered their bids openly by outcry. Then the lot was allotted to the highest bidder after obtaining the consent of the seller farmer.

The prices discovered in the auction centres were reported to the Spices Board by the auctioneers. These prices were called auction prices and were reported across the country.

However, the manual auction lacked transparency and responsibility and was prone to rigging by big traders often to the disadvantage of the cardamom planters and small traders. It acted as a monopoly trading and restricted the expansion of the consumer market.

In manual auction, the dealers (buyers) sometimes colluded (formed cartels) to depress the prices in the market. This phenomenon quite often vitiated the transparency of the system and adversely affected the efficiency of the price discovery mechanism.

The auction resulted in a “buyer’s market”, for the buyer had full information about the demand for and supply of the product. The seller (farmer), as a result, was always at the mercy of the buyer.

To overcome the problems inherent in the manual auctioning and on the demand of planters, the Spices Board introduced e-Auction system for cardamom. E-Auctioning in cardamom has got the potential to revolutionize the agricultural marketing. Thus the present study is undertaken with the following specific objectives.

## **1.8. Objectives**

- i) To examine the efficiency of price discovery of cardamom through e-Auction.
- ii) To analyse the auctioneers behavior towards cardamom futures

## **1.9. Methodology**

### **1.9.1. Selection of Study Area**

The study was undertaken in Idukki district, the major cardamom growing district in Kerala, which accounts for about 90 per cent of the total area and 70 per cent of the total production in India.

Idukki district was purposively selected for collecting data on the marketing aspects of cardamom, given the importance of cardamom cultivation in the district.

### **1.9.2. Selection of Samples**

Spices Park also facilitates electronic auction (e-Auction) centre within its premises for efficient trading and price discovery. Spices Board has established two e-Auction centres for cardamom trading: one in Bodinayakanur in 2009 and another at the Spices Park at Puttady in 2010. These auctions are conducted by private agencies (auctioneers). Spices Board has granted license to twelve auctioneers. The licensed auctioneers conduct auctions on different days and time which are specified by the Spices Board. In order to collect information related to awareness and participation in cardamom

futures by auctioneers, seven auctioneers were selected, six from Puttady, Kerala e-Auction centre and one from Bodinayakanur, Tamil Nadu.

### **1.10. Collection of Data**

Both primary and secondary data were used for the study. The primary data were collected from the selected auctioneers through personal interview method using a structured interview schedule. The secondary data were collected from various publications of the Spices Board and Farm Guide 2016.

### **1.11. Scope of the Study**

The overall objective of agricultural marketing system in a developing country like India should be to help the primary producers viz., the farmers in getting remunerative price for their produce and to provide right quantity at the right time, at the right place to the processors and /or ultimate consumers. The study throws light on the structure, conduct and performance of the e-Auction market.

### **1.12. Limitations of the Study**

Because of time and resource constraint, a large sample could not be selected for the study. The small sample size would be affecting the validity of the generalisations. The personal bias of the auctioneers might have influenced the study.

### **1.13. Organisation of the Study**

The report is organised into five chapters including introductory chapter which features the cardamom economy, statement of the problem, objectives, methodology, scope and limitation of the study. The second chapter attempts a comprehensive review of the available literature. The third chapter presents the profile of Spices Board, Cochin. The fourth chapter discusses the results and discussion. The fifth chapter gives findings, conclusion and suggestion for improvement.

**Chapter II**  
**REVIEW OF LITERATURE**

## CHAPTER- 2

### REVIEW OF LITERATURE

In this chapter an attempt has been made to review the literature relating to agricultural marketing system so as to develop and establish the theoretical frame work for the study based on ideas and concepts expressed in various studies.. The available literatures are categorized under the following heads:

- 2.1 Agriculture marketing system
- 2.2 Cardamom production and marketing system
- 2.3 Structure, Conduct and Performance analysis
- 2.4. Cardamom auctioning

#### 2.1 Agriculture marketing system

Swaminathan (1985) in his thesis 'Trends in the area, production and export price of cardamom in Kerala, Tamilnadu and Kamataka', made a comparative study of the trends in area, production and productivity of cardamom in the three states of Kerala, Tamilnadu and Karnataka. The study was done with the objective of projecting the probable future share of these states in the international cardamom market. He estimated an annual growth rate of 2.34 percent for cardamom. He also studied the trends in the export price of cardamom. He gave much importance for the regional comparison of cardamom production and growth so that all other aspects of the field were left untouched.

Subramanian (1989) in his study viewed agricultural marketing as a middlemen's affair, eating up a greater share of consumer's price and leaving the cultivator with a meager profit.

Sebastian (1990) defined the marketing system as the channel organisations involved in the physical flow of products from the producer to the final consumers.

Acharya and Agarwal (1998) indicated that marketing channels are routes through which agricultural products shift from producers to consumers. They further



illustrated that marketing channels for fruits and vegetables vary from commodity to commodity and from producer to producer. Some of the marketing channels for fruits and vegetables identified are:

- i. Producers – Consumers
- ii. Producers - Primary wholesaler – retailer - consumers
- iii. Producers - Processors
- iv. Producer- Primary wholesaler-processor
- v. Producers- primary wholesaler- secondary wholesaler- Hawker-consumer
- vi. Producer- Local assembler – primary wholesaler – retailer – consumer

Bhat (2001) indicated that timely and accurate market information is the base for effective marketing system. Taking advantage of the technological scientific advancements, the state agriculture marketing boards and departments shall take up collection and dissemination of market information on prices, demand, supply, movements, etc.

Pillai R.S.N. et al. (2008) in their book 'Modern marketing', classified markets of agricultural commodities into different groups on the basis of specific characteristics and highlighted the major differences between the marketing procedure and features of manufactured goods and agricultural commodities. They have noticed the major defects of agricultural marketing and suggested remedial measures for solving such defects and problems. They have also described the importance of international marketing along with the major activities involved in the process including market and product selection, market entry, distribution channels, pricing in global markets, international marketing research, etc.

## **2.2 Cardamom production and marketing system**

Joseph (1985) in his thesis 'Analysis of the marketing and price formation of cardamom in Kerala' studied the economic aspects of cardamom production and marketing by making a detailed analysis of the marketing methods, channels and price

formation. The prime objective of the study was to observe the scope of cardamom plantation and its significance in the economy of Kerala, particularly in Idukki district. He studied the process of price formation of cardamom, using various economic parameters. In his opinion the price formation of the cardamom in the international and domestic markets is based on global supply. The peculiar nature of the auction system prevailing for cardamom has also been discussed in detail.

For an economic appraisal of the Cardamom Marketing System, Asokarajan C. (1985) in the Bodinayakanur region of Uthampalayam Taluk, Madurai District, has conducted a field investigation. The field survey statistically proves that Cardamom export performance greatly depends on the level of output. Hence, to maintain the level of export, increase in production through better management techniques is necessary. The survey also shows that export prices are relatively attractive, but the rising levels of domestic consumption limit the volume of export. The secular trend has not exerted any great influence on the export price movements during all the seasons. The export price cycles of Cardamom have been studied for the period from 1960-61 to 1983-84 and 8 years cycles have been tested through Fourier analysis and the same has been found to be highly significant.

Gopalakrishnan Nair (1987) in his thesis, 'Problems and prospects of marketing cardamom in India and abroad', outlines the problems of marketing cardamom inside and outside India. The study has highlighted the future market possibilities abroad and suggested measures for increasing the export volume and enhancing the prospects of cardamom in India and abroad. He has analyzed the production problems of cardamom and made some important suggestions to solve such problems to a great extent.

Narayanan (1990) in his study, 'Comparative Studies on Quality Factors on India and Guatemalan Cardamom', outlines the quality factors of Indian and Guatemalan varieties of Cardamom. It reveals that Guatemalan I and II are similar in quality to Indian Cardamom like 'Alleppey Green' and 'Coorg Green'. His experimental results show that the Alleppey Green stands first in physical features, composition of volatile oils, flavour, etc compared with Guatemalan varieties. He therefore suggests that the qualitative factors

have to be seriously considered and improved to promote foreign trade. One of the determinants of successful export trade is the quality of the goods exported.

Magraw (2004) in his study 'Beyond Forest Cover: An Analysis of Plant Communities in the Fragmented Rural Landscape of Northern Ilam District' suggested that intensive management in cardamom plantations appears to be the greatest factor, causing lower species diversity in the forest. Management directly influences the entire plant community. Diversion of water to cardamom plantations makes the habitat more favorable to mesic species. The ground cover in cardamom plantations is thinned several times yearly to reduce inter specific competition and increase flower production, pollination and hence food production. This keeps the vegetative ground cover comparatively low and depresses species richness. Thus the cardamom plantations are not viable conservation alternatives for primary forest.

Kurian (2007) stated that Spice Park will provide the much needed processing facilities, quality assuring services, packaging and advanced technology for sterilization, dehydration, cryo girding, etc. This park will be able to get better prices for different spice produces when the park will be operational.

Vasanthakumar (2007) opined that cardamom is used extensively for flavouring wide categories of food stuffs and products. Cardamom is processed into a wide variety of products like cardamom oil, cardamom seeds, cardamom powder, cardamom oleoresin, encapsulated cardamom flavour, super critical fluid extract, cardamom tincture, cardamom drops, cardamom flavoured beverages, cardamom coffee, cardamom tea, cardamom chocolate, etc.

Nambiar (2008) stated that a brand has to deliver values and show consistency in attributes and image. Branding should be introduced in marketing of cardamom.

George et al. (2008) in their article, 'Cardamom development past and present', describe cardamom development in India, considering past performance and future possibilities in the world market. They observed that the emergence of Guatemala as a major producing country is real threat to Indian cardamom. The major constraints in the Indian cardamom industry also have been investigated. The study also compares the area,

yield, production, and productivity in India with that of Guatemala and suggests various schemes and programmers required to renovate the sector.

Sreekumar (2009) in his project 'The test launch study of Milma Cardamom Milk, discusses the effectiveness of test launching of cardamom milk by Milma. The report reveals that the project was a failure. Defective marketing system with inadequate dealer push, inadequate distribution network, inadequate advertisements etc. are highlighted as the major reasons for the failure. Had the project been a success it would have been highly beneficial to the cardamom producers. The conclusion of the report indicates that even though the test launching was a failure the opportunity still prevails as untapped.

Indira (2012) in her article 'Indian cardamom handicapped by poor productivity', argues that unstable area and poor productivity are the major drawbacks of Indian cardamom. She substantiates the observation with a comparative analysis of the productivity of the major cardamom producing countries, India and Guatemala. Export trends points out the dismal performance of Indian cardamom during the last decade and highlights the urgency of immediate steps to regain the global market share.

Mandal (2013) in his work done for Jila krishi bikas karyalaya, Sankhuwasava, Nepal, mentions that cardamom is used in religious rituals and for Ayurvedic medicine preparation. It is used in medicine like dashamularista birendramodak and chawanprash. It is also used in cake, biscuits, coffee and meat to add flavor.

### **2.3 Structure, Conduct and Performance analysis**

Gopalan (1979) who analysed the marketing efficiency opined that efficiency helps to reduce forced sales in unfavorable place at unfavorable time for unfavorable price. It helps increased production, avoids frauds in marketing channels, and improves the power of the farmers. Therefore, marketing efficiency is very much sought for marketing co-operatives functioning at the grass root level.

Suresh (1984) in his thesis 'Economics of cardamom plantation in Kerala', has made a detailed cost-benefit analysis of cardamom cultivation, which throws much light into various cost components of cardamom production, processing and marketing. This study was primarily intended for analyzing the economics of cardamom plantation with

special reference to high ranges in Idukki district. Various statistical tools have been applied to have a microscopic view of the cost components and the impact of each such element in the net revenue of cardamom plantation. However, this study is more or less silent about the marketing problems of cardamom.

Harris (1993) opined that, the structure, conduct and performance analysis is an attempt to compromise between formal structures of economic theory and empirical observations of organization's experience in important markets. Market structure consists of characteristics of organisations of a market, which influence strategically the nature of competition and pricing within the market. Market conduct is the pattern of behaviours, which enterprises follow in adapting or adjusting to the market in which they sell. Market performance represents the economic result of structure and conduct.

Nethaji (1993) defined marketing behaviour as the pattern of decisions to select and sell the produce through various marketing channel.

According to Acharya and Aggarwal (1994) the market structure determines the market conduct and performance. The term market conduct refers to the pattern of behaviour of firms, especially in relation to pricing and their practices in adapting and adjusting to the market in which they function and market performance refers to the economic result that flow from the industry as each firm pursues its particular line of conduct.

Pandiraj and Manoharam (1996) studied the marketing behaviour of farmers in six villages of Madurai. They found that 93.33 percent of the regulated market participant farmers graded their produce before marketing. Thus the grading behaviour was found to be influenced by institutional participation.

Thomas (2008) in his paper 'A brief review of development of spices in India during post independent era', made an evaluation of development of spices in India during post independent era. This study covers the historical background of Indian spices and the achievements in the development of spices after the independence. It further says about the emergence of Cardamom Board and subsequently the Spices Board. A comparative study of developmental programmers during different five-year plan periods

also has been made. It gives some important observations, conclusions and recommendations for the revival of the Indian spices sector.

#### **2.4. Cardamom auctioning**

Joseph (1985) in his thesis 'Analysis of the marketing and price formation of cardamom in Kerala' studied the economic aspects of cardamom production and marketing by making a detailed analysis of the marketing methods, channels and price formation. The prime objective of the study was to observe the scope of cardamom plantation and its significance in the economy of Kerala, particularly in Idukki district. He describes the process of price formation of cardamom, using various economic parameters. In his opinion the price formation of the cardamom in the international and domestic markets is based on global supply. The peculiar nature of the auction system prevailing for cardamom has also been discussed in detail.

Narayanan (2004) under manual auction system, only the large growers sold substantial quantities of cardamom at auctions, as they had to maintain accounts for taxation purposes. Even then, many of them, in order to hide their actual income, sold part of their produce outside the auction centres. Small farmers preferred to sell outside the auction centres in order to get immediate payment or to get over the cumbersome / tedious procedures involved in auction centres or for indebtedness to the buyers. The cost of transportation from farm to auction centre, grading charges, 1 per cent commission to the auctioneer, free samples, 21 days waiting period to receive payment or 15-21 per cent interest to be paid for getting immediate cash and the time involved in all these formalities added up to 5 to 8 percent of the price obtained. So it was not surprising that substantial quantities of cardamom were traded outside the auctions.

Agarwal *et.al* (2006) reported that because of the fast conduct of auction, bidders got less time to examine the quality of the cardamom. As a result, it was not ensuring better price for the better quality lot of cardamom. When the number of lots increased, especially during the peak marketing season, the time allotted for auction was insufficient. Both the buyers and the sellers would be in a hurry and as a result, sellers realized low price.

Kannan (2007) observed that the old system of cardamom auction has given way for modern electronic system of auctioning. In order to ensure transparency and fair market price to cardamom growers, the Spices board adopted innovative change technology in auction system by converting all the manual auction centres into a common and single e-auction centre.

Thenmozhi (2009) in her thesis the 'Production and e-Auction of cardamom in Kerala', studied the production practices of cardamom planters and the marketing behavior of cardamom planters, auctioneers and dealers. The prime objective of the study was to analyse the perception of planters, auctioneers and dealers about the effectiveness of e-Auction compared to other marketing channels. In her opinion, in order to overcome the problems inherent in the manual auction and on the demand of planters, the e-Auction system was introduced. Eventhough it brought transparency in trade and ensured fair prices to the planters there were some issues that required more attention for the effective conduct of e-Auction.

It was found during the literature survey that there are number of research publications and other published work relating directly or indirectly to cardamom marketing and e-Auctioning but lacking of an exclusive study on the price discovery of cardamom through e-Auctioning was specifically noticed. This is definitely a gap in the field of research and an attempt was made to fill this gap by exploring the structure, conduct and performance of cardamom e-Auctioning with special emphasis on its efficiency in price discovery. The present study is thus envisaged as an effort to go deep into the structure, conduct and performance of cardamom e-Auctioning with the basic aim of examining the efficiency of the price discovery of cardamom through e-Auction.

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**Chapter III**  
**PROFILE OF SPICES BOARD**

## **Chapter- III**

### **SPICES BOARD INDIA**

Within the past one decade, the international trade in spices has grown rapidly. During 2015 - 16, Indian spices exports have continued to show an increasing trend in value. During the financial year, a total of 8,43,255 tonnes of spices and spice products valued Rs. 16238.23 crore (US\$ 2482.83 Million) have been exported from the country as against 8,93,920 tonnes valued Rs. 14899.68 crore (US\$ 2432.84 Million) in 2014 - 15 registering an increase of 9 per cent in rupee terms and 2 per cent in dollar terms of value.

The total export of Spices during 2015 - 16 has exceeded the target in terms of both volume and value. Compared to the target of 8,08,000 tonnes valued Rs.14014.00 crore (US \$ 2260 Million) for the financial year 2015 - 16, the achievement is 104 per cent in terms of volume and 116 per cent in rupee and 110 per cent in dollar terms of value.

Spices Board (Ministry of Commerce and Industry, Government of India) is the flagship organization for the development and worldwide promotion of Indian spices. The Board is an international link between the Indian exporters and the importers abroad. The Board has been spearheading activities for excellence of Indian spices, involving every segment of the industry. The Board has made quality and hygiene, the corner stones for its development and promotional strategies.

#### **3.1. Spices Board- Main functions**

- i) Develop, promote and regulate export of spices;
- ii) Grant certificate for export of spices;
- iii) Undertake programmes and projects for promotion of export of spices;
- iv) Assist and encourage studies and research, for improvement of processing, quality techniques of grading and packaging of spices;
- v) Strive towards stabilization of prices of spices for export;
- vi) Evolve suitable quality standards and introduce certification of quality through “quality marking” of spices for export;

- vii) Control quality of spices for export;
- viii) Give licenses, subject to such terms and conditions as may be prescribed, to the manufacturers of spices for export;
- ix) Market any spice, if it considers necessary in the interest of promotion of export
- x) Provide warehousing facilities abroad for spices;
- xi) Collect statistics with regard to spices for compilation and publication;
- xii) Import with prior approval of the Central Government of any spice for sale; and
- xiii) Advise the Central Government on matters relating to import and export of spices.

### **3.2. Activities**

- Promotion of exports of spices and spice products
- Maintenance and monitoring of quality of exports
- Development and implementation of better production methods, through scientific, technological and economic research.
- Guidance to farmers on getting higher and better quality yields through scientific agricultural practices.
- Provision of financial and material support to growers.
- Encouraging organic production and export of spices.
- Facilitating infrastructure for processing and value addition
- Registration and licensing of all spice exporters.
- Assistance for studies and research on better processing practices, foolproof quality management systems, improved grading methods and effective packaging techniques.
- Production of promotional and educative materials in a variety of media for the benefit of exporters and importers.

### **3.3. Package of services for importers**

- Helps importers and exporters in establishing mutual contact.
- Identifies competent supply sources for specific requirements of importers
- Processes and forwards foreign trade enquiries to reliable exporters.

- Organises a common platform for interaction between Indian exporters and international buyers through the World Spice Congress.
- Examines each complaint from importers for corrective and preventive action.
- Spearheads the quality improvement programme for Indian spices.
- Manages a comprehensive and up-to-date data bank for exporters and importers.
- Brings together international bodies, exporters and policy makers through contact group programmes.
- Makes India's presence felt in major international food fairs; conducts food festivals and cooking demonstrations.

### **3.4. Major Initiatives of Spices Board**

#### **a) Spices Park**

With a view to empower the farmers to get better price realization and wider markets for their produce, crop specific Spices Parks have been established in major production/market centres. The Parks will facilitate the farmers to utilize the common infrastructure facilities for cleaning, grading, packing and steam sterilization which will ensure the quality of the product and thus a higher price. The scientific packing and warehousing facilities in the park and the quality testing facility in the laboratory will improve the overall quality of spices produced in the locality. Spices Park is a well-conceived approach to have an integrated operation for cultivation, post harvesting, processing for value addition, packaging and storage of spices and spice products.

There are 8 Spices Parks of Spices Board in India. They are located at:

1. Chhindwara (Madhya Pradesh)
2. Puttady (Kerala)
3. Jodhpur (Rajasthan)
4. Guna (Madhya Pradesh)
5. Guntur (Andhra Pradesh)
6. Sivaganga (Tamil Nadu)

7. Kota (Rajasthan)

8. Raebareli (Uttar Pradesh)

#### **Services Provided by Spices Park**

- Network of wide Roads
- Uninterrupted Power & Water System
- Rain water harvesting
- Drainage Network
- Fire Fighting System
- Weighing Bridge
- Warehousing facility
- Cold Storage (Puf Godown)
- Restaurant & Guest House
- E-Auction Centre

#### **Facilities at Spices Parks**

The basic objective of the concept is to provide common infrastructure facilities for both post-harvest and processing operations of spices and spice products, which also aims at backward integration by providing rural employment. All the Spices Park will have processing facilities at par with international standards in which the produces could undergo cleaning, grading, sorting, grinding, packing, warehousing etc. Apart from the above facilities, the Board will develop the common infrastructure facilities like Roads, Water supply system, Power stations, Firefighting & Control systems, Weighing bridges, effluent Treatment Plants, Quality Lab for checking basic parameters, Bank & Post office counters, Restaurant, Business centers, Guest house etc.

Spices Park will also render educative services to the farming/trading community. It provides training programmes on Good Agricultural Practices (GAP), post-harvest operations, advanced processing practices and global food safety and quality standards and issues etc. The Spice Park will ensure a better pricing for the produce by shortening the channels in the supply chain system currently followed locally. The common

processing facilities available in the Spice Park can be utilized by the farming community for primary processing for improving the quality of their product and thereby they can directly sell to the exporters.

- **Bank Counter:** Union Bank of India has set up a full-fledged banking facility along with a 24 hour ATM service in the Spice Park campus.
- **Business center:** Board has set up a business centre for carrying out meeting in relation to the activities related to Spices Park
- **Administrative Block:** Board has set up a 2 storied administrative building of area 1200 square meter. The ground floor of the block is of 620 square meters. The administrative Office and the Zonal Office of the Board is functioning in this block. Besides, there are 12 rooms are available for functioning as the offices of registered Auctioneers & Dealers of Cardamom and for other stake holders
- **Sales Counter:** An office cum sales counter of M/s FSTL will be functioning in the spice park in the two storied Building of area 500 square meters.
- **Restaurant:** Board has set up a 2 storied full-fledged restaurant of 460 square meters within the park. All modern amenities are available in the Canteen
- **Guest House:** A Guest House, which is a 3 storied building of area 577 sq. meters has established in the park with full-fledged accommodation facilities of 6 bed rooms, dining hall and kitchen facilities.
- **Power Station:** Board has established a power station with 630 KVA transformer and 250 KVA D.G. sets. In addition to this 150 KWA D.G set is also established exclusively for e-Auction center. All the street light established in the park is under the Solar Power system
- **Fire Fighting System:** Board has established firefighting systems at the Spice Park, Puttady for ensuring safety.

**(b) Electronic auction for cardamom**

The e-Auction of cardamom (small) has continued in the Spices Park at Puttady of Idukki

district, Kerala and in Bodinayakanur of Tamil Nadu. Manual auctions are also continued in other states like Karnataka and Maharashtra for cardamom (small) and in two places in Sikkim for large cardamom. The Cardamom (Marketing & Licensing) Rules, 1987 was amended and new notification has been released, which will make the system more competitive, transparent and reduce the time in making payment to auctioneers and farmers. Under the new procedure, registration fee for e-Auctioneer license and manual auctioneer license is Rs. 50,000 and Rs.5,000 respectively. Also, for e-Auction, the applicant shall provide required Security Deposit in the form of Bank Guarantee valid for the block period for which the applicant desires to obtain the auctioneer license.

#### **(c) Registration and Licensing**

Licensing and Registration is a part of the regulatory functions of the Board. The Board issues Certificate of Registration as Exporter of Spices (CRES) and also the auctioneer and dealer licences for trading in cardamom (small & large). During 2015 - 16, Spices Board has issued 1,684 Certificates of Registration as Exporter of Spices (CRES) and 201 Cardamom Dealer licenses. Currently there are 220 licenced cardamom dealers.

#### **(d) Exporter Award**

Spices Board has instituted Export Awards & Trophies to honour the exporters of spices who excel in their exports of spices in various categories every year. The Exporters Award and Certificate of Merit for meritorious export performance for the year 2012 - 13 and 2013 - 14 had been awarded on 28th February 2016.

#### **(e) Establishment of CTC Cell**

The Spices Board in collaboration with Joint Institute for Food Safety and Applied Nutrition (JIFSAN), University of Maryland, USA and Confederation of Indian Industries-Food and Agriculture Center of Excellence (CII-FACE) established a Collaborative Training Center (CTC) for capacity building on food safety in the supply chain management in spices and botanical ingredients and started the activities during 2013 - 14. In order to build capacity of trained resources in India, the CTC Cell continued training programme in spice growing states for the farmers, state agricultural officers and



spices exporters/traders. During 2015 - 16, four training programmes on GAP, GMP and food safety for spices sector under CTC were conducted in Ajmer (Rajasthan), Ahmedabad (Gujarat), Mandsaur (Madhya Pradesh) and Bengaluru (Karnataka). These training programmes were led by two officials from JIFSAN, Maryland, USA under USFDA. The traders, exporters, progressive farmers, officers of State Agriculture & Horticulture Dept., Spices Board and members of Society/ NGOs had participated in the training. An amount of Rs. 9,37,325 was incurred for these trainings.

#### **(f) GI Registration of Spices**

The Board has obtained the GI registrations for Malabar Pepper, Alleppey Green Cardamom, Coorg Green Cardamom, Guntur Sannam Chilli and Byadagi Chilli.

#### **(g) Signature Stall**

Flavourit is an initiative to share and sustain the passion of spices. Flavourit strives to spread the pleasure of Indian spices throughout modern world. The pleasure of spices is preserved by the people who work on the soil with Flavourit. It streamlines the efforts of people working at grassroots with market forces. Flavourit connects nature's traditions to the modern world, bringing together progressive farmers and grassroot organizations, whose hard work ensures best quality spices for wellness. Flavourit is also committed to health and wellness of people and planet. It ensures natural taste and aroma of the spices, packaged in ecofriendly ways, suitable for modern lifestyle. In order to promote these quality spices, Spices Board has set up three signature stalls called Spices India stores one in the Lulu Mall at Cochin and two stores in Delhi. The Board has entered into an MoU with Cochin Port Trust at Willington Island on lease basis to set up Spices Museum and signature stall. The objective of the museum-cum-signature stall is to facilitate the tourists for sourcing authentic Indian spices to prepare flavoured dishes and buying them as presents and souvenirs of Kochi, famous for its wide variety of spices. It will also update the knowledge on spices industry besides touch and feel of major spices.

### **3.5. Promotional Programmes offered by Spices Board India**

#### **1. Production Development**

- Small cardamom
- Large Cardamom
- Development of exotic and high value spices
- Organic Farming of Spices
- Integrated Pest Management (IPM)
- Development of Spices in North East
- Post-Harvest improvements in Spices
- Extension Advisory Service

## **2. Post-harvest improvement of spices**

- Scheme for Improved Cardamom Curing Devices for Small Cardamom
- Subsidy for constructing Drying Yards
- Supply of Polythene Sheets and Bamboo Mats at subsidized cost
- Procurement of Pepper Sheets and Bamboo Mats at subsidized costs.
- Availability of Solar Dries for chillies.

### **3.6. Infrastructure Development**

The maximum amount of grant-in-aid under infrastructure development scheme is limited to 33 per cent of the cost subject to a maximum of Rs. 1.00 crore for exporters in general and 50 per cent of cost subject to a maximum of Rs. 2.00 crore in special areas including North Eastern Region, in a plan period.

- Adoption of hi-tech & technology and process up-gradation
- Setting up/upgradation of quality control labs
- Quality certification, validation of check samples and training of laboratory personnel
- Printing promotional literature/brochures
- Packaging development and barcoding registration

### **3.7. E-Spice Bazaar: Road to Traceability**

Aiming towards the spice traceability, Spices Board India took a new initiative to develop a digital platform which caters to the needs of the spice farmers and exporters/buyers. In association with the Department of Electronics and Information

Technology (DeitY), Government of India, a proposal was designed for developing e-Spice Bazaar web portal in 2015. Apart from providing technological solutions, e-Spice Bazaar, objective is to ensure total traceability of farms and farmers and strengthen the farming community to negotiate with traders and to improve the digital literacy in the project area. On the flip side, e-Spice Bazaar is working towards fostering the production of quality spices.

### **3.8. Participation in National/International Events**

The laboratory actively participates in National/ International meetings related to the Quality issues, formulation of specification etc. for Spice /Spices products. During the year 2015 - 16, Officers from the laboratory attended the following events:

- BIOFACH 2016 held at Nuremburg, Germany during 10 - 13 February, 2016
- Expoalimentaria 2015 held at Peru during 26 - 28 August, 2015
- Codex Meeting CCPR Meeting held at China, during 11 - 20 April, 2015
- IPC Quality Committee Meeting, Malaysia held during 25 - 27 April, 2016
- The second session of the Codex Committee on Spices and Culinary Herbs, held at Goa during 3 to 19 September, 2015
- A high level technical symposium on food safety science in collaboration with USFDA organized by FSSAI at India Habitat Centre on 28 September 2015.

### **3.9. Publications**

- (a) The periodical publications of Spices Board viz. Spice India in different languages English, Hindi, Malayalam, Kannada and Tamil and the quarterly issue in Telugu and Nepali were released on time. The monthly issues dealt with the following themes.
- (b) Foreign trade enquiries bulletin (fortnightly): The publication previously released as a fortnightly was turned into a multicoloured monthly and was sent to the subscribers through e-mail which carried trade enquiries received by the Board directly from Indian mission abroad, overseas mission in India, overseas trade fairs and through the website of the Board. Almost all the trade enquiries received

from various offices were coordinated at the headquarters and published in four to nine page bulletins

- (c) In addition to the above, supportive booklets were published for the spice farmers on ginger, turmeric and the development schemes of Spices Board and the same were distributed among spices farmers of North-East states.

### **3.10. Structure of Spices Board**

The Spices Board consists of 32 members who includes:

- i) Chairman;
- ii) Three members of Parliament of whom two shall be from among elected by the House of the People and one from among those elected by the Council of States;

Three members to represent the Ministries of the Central Government dealing with:

- Commerce;
  - Agriculture; and
  - Finance;
- iii) Seven members to represent the growers of spices;
  - iv) Ten members to represent the exporters of spices;
  - v) Three members to represent major spice producing States;
  - vi) Four members one each to represent:
    - (i) The Planning Commission;
    - (ii) The Indian Institute of Packaging, Mumbai
    - (iii) The Central Food Technological Research Institute, Mysore;
    - (iv) Indian Institute of Spices Research, Calicut;
  - vii) One member to represent spices labour interests.

The Board has three statutory committees as under:

- i. Executive Committee
- ii. Research & Development Committee for Cardamom
- iii. Market Development Committee for Spices

### **3.11. Organisational chart of the Board**

**The organizational chart of the Spices Board is given in Fig 3.1**



**Chapter IV**  
**RESULT AND DISCUSSION**

## Chapter- 4

### RESULTS AND DISCUSSION

Cardamom is the Queen of Spices. It is one of the most exotic and highly prized spices. Indian cardamom has a history as old as human civilization. South India and Sri Lanka are regarded as the origin of this spice.

In India, cardamom was cultivated in 70080 ha. of land with an output of 19625 tonnes in 2016-17. Kerala accounts for 57 per cent of the total area under cultivation by cultivating in 39680 ha. and 88 per cent of the total production of cardamom in India with an output of 17215 tonnes. (Source: [www.indianspices.com](http://www.indianspices.com))

Prior to 1955, there was no organized system for marketing cardamom. The planters, mostly small holders, used to sell their produce to private traders who fixed the price arbitrarily. Admittedly, it was an imperfect market system with no element of competition among the buyers and as such the planters were placed in a very precarious position particularly in the years of bumper harvest. The marketing system was more or less identified with unfair practices to the planters and underweight of cardamom offered for sale.

In order to regulate the prices of cardamom in the international and domestic markets, to regulate the players in the market and to establish systematic procedures of trade, Govt. of India in the year 1955-56 introduced manual auction system. Contrary to the expectations, the manual auction system did not result in healthy competition at the auction hall. It failed to ensure fair price to the planters as the system was prone to the foul play of big operators. In order to bring in greater transparency and accountability into the system the Spices Board introduced e-Auction of Cardamom in Bodinayakanur, Tamilnadu on 23<sup>rd</sup> August 2007 with 40 buyer terminals. The second e-Auction centre was at Puttady in Idukki on 28<sup>th</sup> December 2007 with 60 terminals. Now it's being 10 years after the advent of e-Auction system, the e-Auction system has brought greater transparency in the auction process. The system is running successfully in both the centres.

The e-Auction had replaced the traditional outcry auctions of cardamom in Kerala and Tamilnadu. In the new system, licensed dealers are provided with a user id and password. The dealers have to log into the system to participate in an auction. A bid is made with key depressions using a normal computer keyboard. Identity of bidders is protected during the auction process.

In Puttady and Bodinayakanur e-Auction centre, 12 auctioneers were licensed to conduct the auction. The 6 auctioneers who were licensed to conduct the auction at Puttady e-Auction centre are Cardamom Processing & Marketing Co-operative Society Ltd., Thekkady, Kerala Cardamom Processing & Marketing Company Ltd., Greenhouse Cardamom Co. Ltd., Header System (India) Pvt Ltd., MAS Enterprise Ltd., from various parts of the state. The 6 auctioneers who were licensed to conduct the auction Bodinayakanur at e-Auction centre are Sugandhagiri Spices Promoters & Traders Pvt. Ltd., Idukki District Traditional Cardamom Producer Company Ltd., Cardamom Growers Federation, State Trading Corporation, and Cardamom Planters Association. The present study is an attempt to analyse the Price Discovery of Cardamom through e-Auction. The study was formulated with the following specific objectives:

- i) To examine the efficiency of price discovery of cardamom through e-Auction.
- ii) To analyse auctioneers behavior towards cardamom futures.

The data required for the study were collected from the selected 7 auctioneers and e-Auction centre, Puttady.

The results of the study are discussed under the following heads:

- 4.1 Profile of the auctioneers.
- 4.2 Structure of e-Auction system for cardamom.
- 4.3 Conduct of cardamom auction system
- 4.4 Performance of cardamom e-Auction system
- 4.5 Perception of auctioneers about the efficiency of e-Auction and open auction system of cardamom.
- 4.6 Efficiency of the price discovery mechanism.



#### 4.1. Profile of the Auctioneers

Seven auctioneers were selected for the study and they are namely, Cardamom Planters' & Marketing Co-op. Society Ltd., (CPMC), Thekkady, Kerala Cardamom Processing & Marketing Company Ltd., Thekkady (KCPMC), Header System (India) Pvt Ltd.,(Header), Nedumkandam, MAS Enterprises Ltd., Vandenmedu (MAS), Green House Cardamom Company Ltd., Bodinayakanur (GHCC), South Indian Green Cardamom Company Ltd., Vandenmedu(SIGCC), Vandenmedu Green Gold Cardamom Producer Co. Ltd., (VGGCP). Among them four are public limited companies, two are private limited companies and one is a co-operative society.

Except, Vandenmedu Green Gold Cardamom Producer Co. Ltd., all the other selected auctioneers conducted auction at e-Auction centre at Puttady on the day allotted to them by the Spices Board. Vandenmedu Green Gold Cardamom Producer Co. Ltd., conducted auction at e-Auction centre in Bodinayakanur, Tamil Nadu.

In Puttady e-Auction centre, e-Auction is conducted on 3 days: Tuesday, Thursday and Saturday and in Bodinayakanur auction centre, e-Auction is conducted on 3 days: Monday, Wednesday, Friday in a week. Thus, e-Auction is conducted for 4 hours by each auctioneer on all days except Sunday. The selected auctioneers also carried out other business like distribution of FMCG, farm inputs, export of cardamom, etc. The profile of selected licensed e-Auctioneers is presented in Table 4.1

**Table 4.1 Profile of Selected Licensed e-Auctioneers**

Sl. No.	Name of e-Auctioneer	Legal Status of Auctioneer	Auction Place	Auction day and time		Frequency of Auctioning
				Day	Time	
1	Header System (India) Pvt Ltd., Nedumkandam	Private Ltd. Company	Puttady	Tuesday	2.30 pm to 6.30 pm	Weekly
2	Kerala Cardamom Processing & Marketing Company Ltd., Thekkady	Public Ltd. Company	Puttady	Thursday	2.30 pm to 6.30 pm	Weekly

3	Cardamom Planters' & Marketing Co-op. Society Ltd., Thekkady	Co-operative Society	Puttady	Thursday	10.00 am to 2.00 pm	Weekly
4	MAS Enterprises Ltd., Vandenmedu	Private Ltd. Company	Puttady	Saturday	10.00 am to 2.00 pm	Weekly
5	Green House Cardamom Co. Ltd., Bodinayakanur	Public Ltd. Company	Puttady	Saturday	2.30 pm to 6.30 pm	Weekly
6	South Indian Green Cardamom Company Ltd., Vandenmedu	Public Ltd. Company	Puttady	Tuesday	10.00 am to 2.00 pm	Weekly
7	Vandenmedu Green Gold Cardamom Producer Co. Ltd.	Public Ltd. Company	Bodinayakanur	Wednesday	10.00 am to 2.00 pm	Weekly

Source: e-Auction centre, Puttady

From the table it is clear that e-Auction is conducted in the morning (10.00 am to 2.00 pm) and afternoon (2.30 pm to 6.30 pm) on alternate days from Tuesday to Saturday in Kerala. Three auctioneers in Kerala (Cardamom Planters' & Marketing Co-op. Society Ltd., MAS Enterprises Ltd., South Indian Green Cardamom Company Ltd.,) conducted e-Auction at 10.00 am and 3 other auctioneers (Header System (India) Pvt Ltd., Kerala Cardamom Processing & Marketing Company Ltd., Green House Cardamom Co. Ltd.,) conducted e-Auction at 2.30 pm.

Vandenmedu Green Gold Cardamom Producer Co. Ltd., conducted e-Auction in the morning (10.00 am to 2.00 pm) on every Wednesday at Bodinayakanur, Tamil Nadu.

#### 4.1.2 Experience in Cardamom Auctioning

Table 4.2. examines the experience of selected auctioneers in cardamom auctioning.

**Table 4.2. Experience of Selected Auctioneers in Cardamom Auctioning**

Sl. No.	Auctioneer	Experience (Year)
1	Cardamom Planters' & Marketing Co-op. Society Ltd.	22
2	Kerala Cardamom Processing & Marketing Company Ltd.	22
3	MAS Enterprises Ltd., Vandenmedu	18
4	Header System (India) Pvt Ltd.	15
5	South Indian Green Cardamom Company Ltd.	9
6	Green House Cardamom Co. Ltd., Bodinayakanur	8
7	Vandenmedu Green Gold Cardamom Producer Co. Ltd.	4

Source: e-Auction centre, Puttady.

According to the table, the auctioneers had 4 to 22 years experience in auctioning. It may be noted that two auctioneers had 22 years experience each and one each had 18 and 15 years experience. The least experienced auctioneer was Vandenmedu Green Gold Cardamom Producer Co. Ltd. ( 4 years).

#### 4.1.3 Marketing Ecosystem of Auctioneers

The auctioneers collected cardamom for e-Auction sales through collection depots opened at the cardamom growing areas of Idukki district. Table 4.3 shows the collection depots operated by the selected auctioneers.

**Table 4.3 Collection Centres Operated by the Selected Auctioneers.**

Sl. No.	Auctioneers	Collection depot (Place)	Number
1	Header System (India) Pvt Ltd., Nedumkandam	Vandenmedu, Nedumkandham, Parathode, Rajakumari, Baison Valley, Santhanpara, Puliyanmala, Nariyampara, Chettukuzhy, Anavilasam	10
2	Kerala Cardamom Processing & Marketing Company Ltd., Thekkady	Vandenmedu, Poopara, Nedumkandam Parathode, Kumily, Checkupallam, Nariyanpara, Kodamkuzhy and Anavilasam,	9
3	Cardamom Planters' & Marketing Co-op. Society Ltd., Thekkady	Vandanmettu, Kumily, Nedumkandam Parathode, Poopara, Checkupallam, Nariyanpara, Kodamkuzhy and Anavilasam,	9
4	MAS Enterprises Ltd., Vandenmedu	Kallar, Pottankadi, Rajakumari, Shanthanpara, Vandanmettu, Nedumkandam, Merikulam Anavilasami, Udumbanchola, Anakara, Vallakadavu, Parathode , Pampadumpara, Puliyanmala,	14
5	Green House Cardamom Co. Ltd., Bodinayakanur	Kallar, Rajakumari, Ettamayile, Nedumkandam, Anavilasam Udumbanchola, Puliyanmala, Kattapana,	8
6	South Indian Green Cardamom Company Ltd., Vandenmedu	Chakkupalam, Vandenmedu, Nedumkandam, Puliyanmala, Parathode, Pampupara, Poopara, Pathumuri, Anavilasam, Nariyampara,	10
7	Vandenmedu Green Gold Cardamom Producer Co. Ltd.	Vandenmedu, Puliyanmala, Parathode, Kumily, Anavilasam.	5
	Total		65

Source: e-Auction centre, Puttady

The table clearly shows that MAS Enterprises Ltd., Vandenmedu had the largest number of collection depots (14) followed by South Indian Green Cardamom Company Ltd. Vandenmedu (10) and Header System (India) Pvt Ltd., Nedumkandam (10). The other two auctioneers, (Kerala Cardamom Processing & Marketing Company Ltd., Thekkady, and Cardamom Planters' & Marketing Co-op. Society Ltd., Thekkady) had 9 depots each. Green House Cardamom Co. Ltd., Bodinayakanur had 8 depots and Vandenmedu Green Gold Cardamom Producer Co. Ltd. had 5 depots.

The farmers will bring their produce to the collection depots near to them and they will register their cardamom through the collection depot of auctioneers. After that, auctioneers issue cardamom registration receipt for a particular auction to the individual planters and take sample from the lots.

**Table 4.4. Number of Depots (place-wise)**

Sl. No.	Place	No. of depots
1	Anavilasam	7
2	Vandenmedu	6
3	Nedumkandam	6
4	Parathode	6
5	Puliyannmala	5
6	Nariyanpara	4
7	Poopara	3
8	Kumily	3
9	Checkupallam	3
10	Rajakumari	3
11	Shathanpara	2
12	Udumbanchola	2
13	Kallara	2
14	Kodamkuzhy	2
15	Chettukuzhy	1
16	Baison Valley	1
17	Pottan kadi	1
18	Kattapana	1
19	Pampupara	1
20	Anakara	1
21	Vallakadavu	1
22	Pampadumpara	1
23	Ettammayile	1
24	Pathumuri	1
25	Meikulam	1
	Total	65

Source: e-Auction centre, Puttady

It is evident from the table that Anavilasam(7), Vandenmedu(6), Nedugandam(6), Parathode (6) and Puliyannmala(5) are the main collection centres of cardamom for the selected auctioneers. All the selected auctioneers had collection depots at Anavilasam.

#### **4.1.4 Grading of Cardamom**

Grading and standardization are marketing functions that facilitate better price realization. Grading refers to sorting of unlike lots into similar lots based on some standard quality parameters. Each lot will possess substantially the same characteristics as far as quality is concerned.

##### **4.1.4.1 Grade traded in e-Auction**

In the auction centre, cardamom is traded in bulk form, and hence the selected auctioneers don't grade cardamom before auctioning. The dealers and exporters after taking delivery from the e-Auction centre grade the cardamom according to the preference of their customers.

#### **4.1.5 Warehousing Facilities**

Cardamom being a valuable agricultural commodity, due care is given for its safety at all levels from growers to ultimate consumers. After drying and assortment, cardamom is stored usually in black polythene lined gunny bags (strong sacks made from jute fibres) to retain the green colour. During storage, wooden chests are also used by the large planters.

Auctioneers do not use warehouse as their role is to facilitate trade, but the cardamom brought by the farmers (packed in black polythene lined gunny bags which are properly stitched) at collection depots are stored there till next auction day (less than 7 days). In the collection depot (known as pooling centres), the cardamom brought by farmers are labeled and stacked, and it is kept in moisture-proof area away from direct sunlight.

##### **4.1.5.1. Terms and conditions of Loan against warehouse receipt**

Federal Bank offers credit against Warehouse Receipts of Agricultural Commodities issued by State/Central Warehousing Corporations (SWCs/CWC) or approved Collateral Managers.

#### **Key Features**

- Best suitable for short - term fund needs.

- Loan amount up to 70 % of the value of goods pledged/covered by the warehouse receipt, upto a maximum amount of Rs 25 crores.
- Minimal paperwork
- Hassle free processing
- No hidden charges or heavy penalties
- No collateral security needed
- Repayment can be done as Lump sum
- Loan can be availed as demand loan or cash credit
- Primary Security of the loan will be Pledge of warehouse receipts/Storage Receipts issued by State/Central Warehousing Corporations
- Loan period will be up to 12 months

### **Eligibility**

Any person, firm, company engaged in lawful activity properly identified by the branch holding warehouse receipts (negotiable or non-negotiable) issued by State/Central Warehousing Corporations (SWCs/CWC) or approved Collateral Managers.

Approved Collateral Managers include

- National Bulk Handling Corporation (NBHC)
- National Collateral Management Services Ltd (NCML)
- Edelweiss Agri Value Chain Ltd
- Staragri Warehousing & Collateral Management Ltd
- Shree Shubham Logistics Ltd, LTC Commercial Co Pvt Ltd
- Navjyoti Commodity Management Services Ltd)

### **Documents Required**

- Proof of Identity (Passport / Voters ID card/ Driving License/PAN Card).
- Recent Passport size photograph.
- Address Proof (Ration card Tel/ Electricity Bill/ Lease agreement/Passport/Trade license /Sales Tax certificate).
- Proof of Warehouse receipts

#### **4.1.6. Services Provided by Auctioneers**

The selected auctioneers were not providing any kind of services like input supply, technical advice or credit to the cardamom planters. In order to attract more dealers to the auction, the auctioneers arranged conveyance and provided free food and water to the dealers.

The auctioneers also arranged for the delivery of cardamom at the destination of the dealers on the same day of purchase itself but the expenses incurred for delivery have to be borne by the trader.

#### **4.1.7. Dissemination of Marketing Intelligence**

The auctioneers disseminated market sensitive information like previous day's price, weekly price, monthly price, etc., by word of mouth, display on the notice board and telephone to the planters and dealers. Though the prices of cardamom futures also influence the auction prices, price tickers of commodity exchanges are not put in the e-Auction hall.

#### **4.1.8. Promotional Strategies Adopted by Auctioneers**

The selected auctioneers were not undertaking any specific promotional methods for attracting planters and dealers. However, through effective customer relationship management they are retaining existing customers and attracting new customers.

#### **4.1.9. Training Programmes Conducted by Auctioneers**

The auctioneers did not conduct any type of training programmes either for cardamom planters or dealers.

#### **4.1.10. Payment of Selling Price to the Planters**

The auctioneers have to pay the growers whose cardamom is pooled, the sale value of the cardamom sold in an auction within 12 days from the date of the auction (T+2).

In cardamom auction, the planter, has the choice of either waiting for settlement period of 12 days for payment or can discount the 'Crop Receipt' generally at 2 - 2.5% for 12 days.



#### 4.1.11. Awareness and Participation in Cardamom Futures

All the 7 selected auctioneers (Cardamom Planters' & Marketing Co-op. Society Ltd., Thekkady, Kerala Cardamom Processing & Marketing Company Ltd., Thekkady, Header System (India) Pvt Ltd., Nedumkandam, MAS Enterprises Ltd., Vandenmedu, Green House Cardamom Co. Ltd., Bodinayakanur, South Indian Green Cardamom Company Ltd., Vandenmedu and Vandenmedu Green Gold Cardamom Producer Co. Ltd.) were aware of cardamom futures.

#### 4.1.12. Source of Awareness About Cardamom Future

Table 4.5 Source of Awareness About Cardamom Future

Sl. No.	Sources	No. of respondents
1	Print media	4(57.0)
2	Television	0
3	Peer group	0
4	Internet	3(43.0)
5	Brokers	0
6	Exchange representatives	0
	Total	7(100)

Source: Compiled from primary data

The table reveals that majority (57 per cent) of the auctioneers came to know about cardamom futures through print media and the remaining 43 per cent through internet.

#### 4.1.13. Participation in Futures Trading.

All the auctioneers had participated in futures, but they were not active participants in cardamom futures. They opined that cardamom futures trading is akin to gambling and they don't have trust in futures trading. Cardamom futures had not brought any benefit to the auctioneers and hence they keep away from futures trading.

#### 4.1.14 Changes in the Ecosystem Due to the Advent of Futures in Cardamom

The opinion of auctioneers about the changes in the ecosystem after to advent of futures in cardamom was analysed using Index numbers, which is shown in Table 4.6. The opinion of the selected auctioneers in respect of 10 impacts of cardamom futures were obtained on a five-point scale and the index were classified into four zones as follows:

Index	Zone
100 to 50	Highly satisfied
50 to 0	Satisfied
0 to -50	Dissatisfied
-50 to -100	Highly dissatisfied

**Table 4.6 Changes in the Ecosystem due to the Advent of Futures in Cardamom**

Sl. No.	Particulars	No. of respondents	
		Index	Zone
1	Availability of better quality of cardamom	0	III
2	Better transportation facilities have come up	-50	II
3	Employment generation	-14.28	II
4	Efficient price discovery	21.42	III
5	Grading facilities have come up	21.42	III
6	Greater quality consciousness in the value chain	64.28	IV
7	High liquidity in trading	21.42	III
8	Increased volume of business	-50	II
9	Transparency in trading	28.57	III
10	More warehousing facilities have come up	0	III
	Composite Index	19.35	III

Source: Compiled from primary data

The composite index (19.35) shows that, vast majority of the auctioneers were not much satisfied about the impact of cardamom futures on the ecosystem. Four out of the ten statements were marked in the satisfied zone, they are 'transparency in trading',

'efficient price discovery', 'grading facilities have come up' and 'high liquidity in trading'. The greatest impact of cardamom futures according to respondents was 'greater quality consciousness'. The parameters that obtained negative satisfaction were 'better transportation facilities have come up', 'Increased volume of business' and 'more employment generation'.

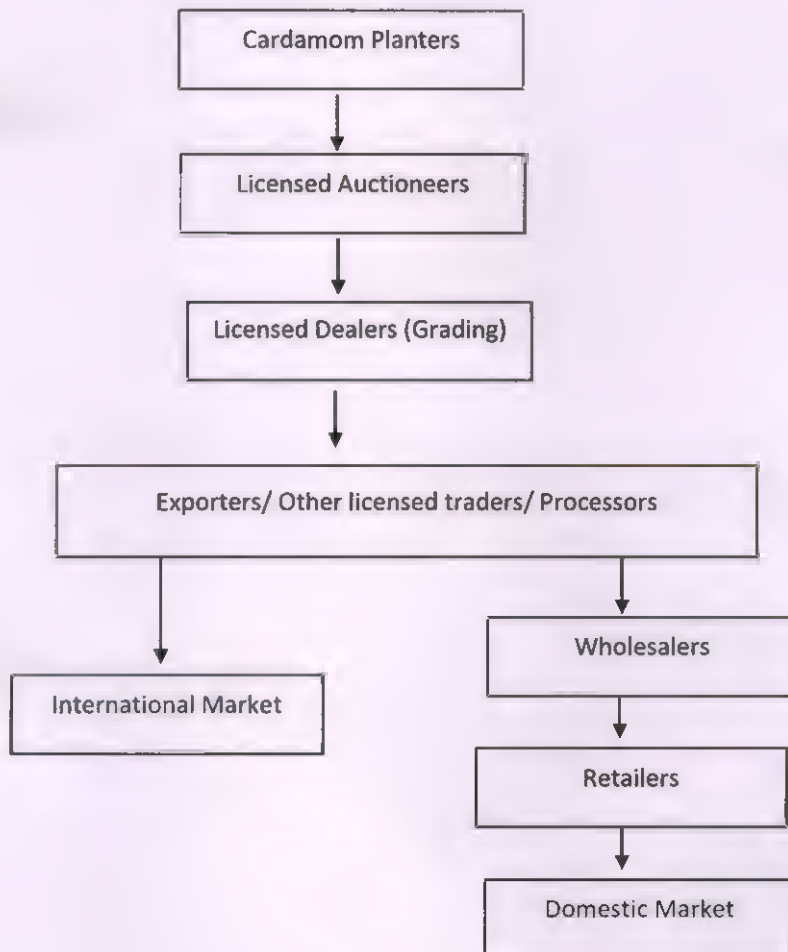
## **4.2 Structure of Cardamom Market**

### **a) Cardamom auction system**

As per the Cardamom (Licensing and Marketing) Rules, 1987 formulated by the Government of India, no person shall carry on business as auctioneer or dealer of cardamom except those who are licensed in accordance with the terms and conditions of the Spices Board for the development of the cardamom industry. Likewise, all the producers of cardamom should sell their produce through a licensed auctioneer/dealer, the auctioneer/dealer then sell the stock to exporters or processors or to others after grading or processing. Auctioneer shall not negotiate sale of cardamom with a dealer who is not licensed by the Board.

The e-Auction had replaced the traditional outcry auctions of Cardamom in Kerala and Tamilnadu. In the new system, licensed dealers are provided with a user id and password. The dealers have to log into the system to participate in an Auction. A bid is made with key depressions using a normal computer keyboard. Identity of bidders is protected during the auction process. Highest bidder's name is displayed only on the Auction Masters' terminal. There is a Main Display Board showing lot no, quantity, number of bags, current highest bid, etc. of each lot kept in the Auction. This system would ensure remunerative returns to the planters. The flowchart of e-Auction is presented in Figure 4.1.

**Figure 4.1 Cardamom e-Auction System**



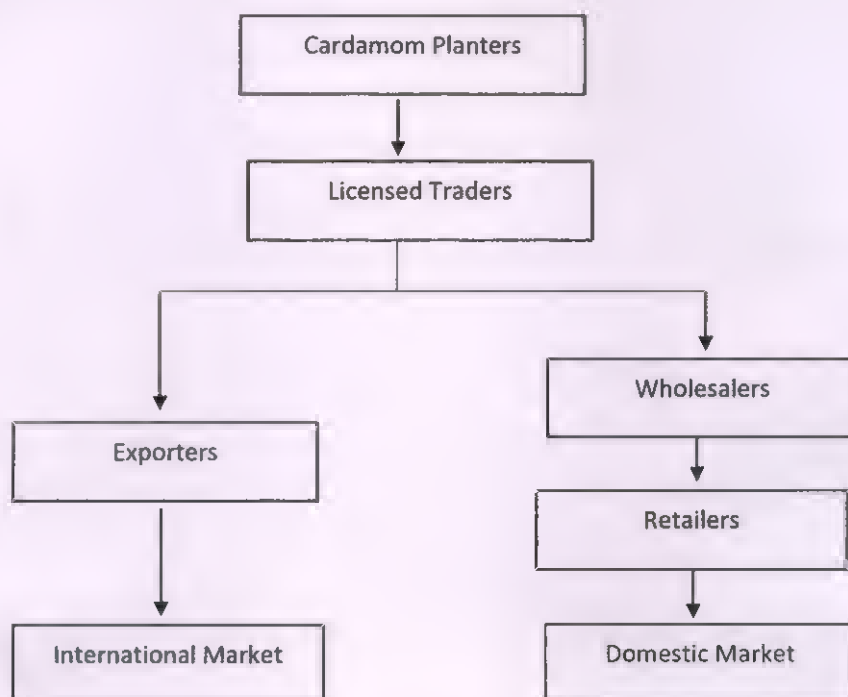
Source: [www.indianspices.com](http://www.indianspices.com)

**b) Direct marketing of cardamom:**

In the case of direct marketing of cardamom, the planters used to sell their produce to licensed traders directly. After that it is processed and exported or shipped to various markets and finally reaches the consumer. In this system of marketing, the planters

receive immediate payment from dealers. As on October 2017, Spices Board has given license to 220 traders, to trade in cardamom ([www.spicesboard.com](http://www.spicesboard.com)). The licensed traders are also the dealers in the e-Auction centre. The flow chart of direct marketing to traders is presented in .

**Figure 4.2 Direct Marketing of Cardamom**



Sources: [www.indianspices.com](http://www.indianspices.com)

### **Domestic market for cardamom**

India is the second largest consumer of cardamom after Saudi Arabia. Global consumption of cardamom is estimated at 50,000 tonnes. On the other hand, the current domestic demand for small cardamom had been estimated at around 20,000 metric tonnes. The retail market size in South India is estimated around 29 per cent for small cardamom. The share is the highest in West India (36 per cent) followed by the North India (31 per cent) and lowest in the East India (4 per cent). Industrial consumption of cardamom particularly by the Pharmaceutical/Ayurveda and Cosmetic industries is the

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highest and accounts for over 45% of the total consumption. A clear regional disparity is visible in cardamom consumption pattern. Though the urban areas contributed a large share of its consumption, in recent years rural markets were also gaining importance and growing at a very high rate than the urban.

Major wholesale markets of Cardamom in India are Cochin, Thodupuzha (Kerala); Saklaspur, Mercara, Medikeri, Mangalore (Karnataka), Bombay (Maharashtra), Virudhunagar, Cumbum, Bodinayakanur, Thevaram, Pattiveeranpatti (Tamil Nadu). And major assembling markets of cardamom in Kerala are Kurnili (Dist.-Idukki) and Vandenmedu (Dist. Idukki).

The main use in India is for flavouring food preparations especially sweet dishes. Pan masala or chewing mixture is another area in which cardamom is consumed in large quantities. In fact, cardamom traders and exporters have developed a particular grade of cardamom entitled 'Panbar', resembling AGMARK grade of AGS 2 for supplying to Panwalas in North Indian centers. It is usually taken after the food and is said to be good for easy digestion when heavy meals are taken. Of late, manufactured pan masalas are also available in consumer packs to be used as mouth fresheners. The consumption of freshly made 'pan masalas' and manufactured ones are very common and popular in North India, that the consumption of cardamom; in this area would be high.

Hoteliers and bakers constitute another important segment. They use cardamom in large quantities for flavouring food items, sweets and bakery products. Cardamom also finds an important place in Ayurvedic Medicines and in a few medicines of other systems.

Also in India, certain health foods have been brought out with cardamom flavour. Cakes, biscuits, toffees, chewing gums etc with cardamom flavour are popular in the Indian market. Muslims in North India, who smoke hookah, add cardamom husk to tobacco in the ratio of 1:3. Betel nut factories in Andhra Pradesh mix cardamom with supari as flavouring agent. Kimam is a tobacco paste, made spicy by adding cardamom. The future of cardamom industry as a whole and that of India in particular, mainly depends upon its entry into the food industry and certain non- food industries. New uses and related products are also to be developed. Along with marketing of cardamom



capsules, its oil, oleoresin and powder in attractive consumer packs in the existing markets could be marketed.

### 4.3 Conduct of Cardamom Auction

Market conduct refers to the set of competitive strategies that a trader or a group of traders use to run their business. It includes (i) market shares and price setting policies, (ii) policies aimed at coercing rivals and (iii) policies towards setting the quality of products. In other words, market conduct refers to various aspects of trading strategies viz., buying, selling, transport, storage, information, negotiation and risk bearing by traders.

Traditionally cardamom was traded by manual auction method and it continued up to 2007. From 2008, the Spices Board introduced e-Auction system for greater transparency and to ensure better price to the planters.

**Table 4.7. Comparison of Manual Auction and E-AUCTION System**

Particular	Manual Auction system	E-AUCTION system
Year of starting	<ul style="list-style-type: none"> <li>It began in 1956-57 and continued up to 2007</li> </ul>	<ul style="list-style-type: none"> <li>It started on 27<sup>th</sup> December 2007</li> </ul>
Registration of cardamom for auction	<ul style="list-style-type: none"> <li>Planters register their cardamom through collection depots of auctioneers. After that, auctioneers issue cardamom registration receipt for a particular auction to the individual planters and take sample from the lots.</li> </ul>	
Procedure for collecting the sample	<ul style="list-style-type: none"> <li>The auctioneer shall draw 1500 grams out of each lot of cardamom offered for pooling and the quantity of sample drawn shall be recorded in the crop slip issued to the person whose cardamom is pooled. Out of the sample drawn, 100 grams shall be set aside as purchaser sample and fifty grams shall be put on display at the auction centre.</li> <li>The remaining 1350 grams shall be used by the auctioneer for distributing as samples during the bidding process of the said lot.</li> <li>The auctioneer shall refund the value of 1350grams of cardamom to the growers from the sample drawn. Thereafter, the total amount payable by the auctioneer to the person who pooled the cardamom shall be the sum of the sample refund value and the value for which the lot has been sold in an auction after deducting the eligible one per cent commission on the total amount.</li> <li>No additional charges shall be deducted in the name of wastage, weight loss and charity</li> </ul>	



<b>Place for conducting the auction</b>	<ul style="list-style-type: none"> <li>• Auction halls within the auctioneers office</li> </ul>	<ul style="list-style-type: none"> <li>• Common e-Auction centre at Puttady</li> </ul>
<b>Conducted by</b>	<ul style="list-style-type: none"> <li>• Auctioneers and finally reported to Spices Board.</li> </ul>	<ul style="list-style-type: none"> <li>• Conducted by auctioneers under the direct supervision of Assistant Director of Spices Board and live auction is broadcasted through the website of Spices Board.</li> </ul>
<b>Infrastructure for auctioning</b>	<ul style="list-style-type: none"> <li>• One cardamom sample display board</li> <li>• Hall with chairs</li> </ul>	<ul style="list-style-type: none"> <li>• One cardamom display board, showing lot no, quantity, number of bags current highest bid, etc. of each lot kept in the Auction.</li> <li>• Power back up system, which gives power to the e-Auction hall.</li> <li>• 60 terminals and one main screen display at the centre of the e-Auction hall.</li> <li>• Licensed traders are provided with a user id and password. The traders have to log into the system to participate in an Auction.</li> <li>• Identity of bidders is protected during the auction process.</li> <li>• Highest bidder's name is displayed only on the Auction Masters' terminal. Auction Master includes the representatives of the auctioneer, who is conducting auction on that particular day.</li> </ul>
<b>Procedure of auctioning</b>	<ul style="list-style-type: none"> <li>• Outcry system</li> <li>• Dealers gather in the auction hall and bids loudly after evaluating the quality of the cardamom</li> <li>• Bids starts from the average price set by the auctioneers.</li> <li>• The highest price is the final bid price for the lot.</li> </ul>	<ul style="list-style-type: none"> <li>• Bidding starts from reserved price /average price.</li> <li>• In bidding process, identity of traders is not disclosed.</li> <li>• Traders make bid by pressing the enter key in the keyboard of their system. By pressing enter key the price will increase by Rs.2 (tick price)</li> <li>• At a particular price, if there is no further bidding, the system waits up to 9 seconds. Finally, the bid is closed at that price.</li> </ul>
<b>Medium of bidding</b>	<ul style="list-style-type: none"> <li>• Manual</li> </ul>	<ul style="list-style-type: none"> <li>• Electronic</li> </ul>



<b>Payment of rent</b>	<ul style="list-style-type: none"> <li>• Own building of auctioneers</li> </ul>	<ul style="list-style-type: none"> <li>• Auctioneers should pay rent of Rs 200/ tonne of quantity sold, to the Spices Board.</li> </ul>
<b>Transparency</b>	<ul style="list-style-type: none"> <li>• Identity of bidders known cartel formation possible</li> </ul>	<ul style="list-style-type: none"> <li>• Identity of bidders anonymous. Less chance of cartel formation</li> <li>•</li> </ul>
<b>Commission received</b>	<ul style="list-style-type: none"> <li>• Auctioneers will receive one per cent commission for the service rendered by them from the farmer.</li> </ul>	
<b>Payment system</b>	<ul style="list-style-type: none"> <li>• Every auctioneer in respect of each auction should recover payment due from bidders within 10 days from the date of auction and pay the growers within 12 days from the date of auction.</li> </ul>	

Source: e-Auction centre, Puttady

### **Advantages of e-Auction vis-à-vis open auction**

Under manual auction system, the planters could sell either directly to collection centres of auctioneers or to local traders who used to purchase from each house and took their stock to collection centres of auctioneers for auction sale. The collection centres were maintained by the auctioneers in the cardamom growing areas. Later on the auctioneers carried this stock to the respective auction centre and kept for auction sales.

In the manual auction system, the auctioneers showed the samples of each lot put for auction to the dealers. The dealers after examining the colour, shape, size, moisture content, litre weight, etc., tendered their bids openly by outcry. Then the lot was allotted to the highest bidder after obtaining the consent of the seller farmer.

The prices discovered in the auction centres were reported to the Spices Board by the auctioneers. These prices were called auction prices and were reported across the country.

However, the manual auction lacked transparency and responsibility and was prone to rigging by big traders often to the disadvantage of the cardamom planters and small traders. It acted as a monopoly trading and restricted the expansion of the consumer market. When the South India producer sold cardamom at Rs.250-300 per kg, the consumer in North India had to pay Rs.700-1000 per kg and the intermediaries got off with the difference.

### **Manual auction system was beset with the following problems:**

According to Narayanan (2004) under manual auction system, only the large growers sold substantial quantities of cardamom at auctions, as they had to maintain accounts for taxation purposes. Even then, many of them, in order to hide their actual income, sold part of their produce outside the auction centres. Small farmers preferred to sell outside the auction centres in order to get immediate payment or to get over the cumbersome / tedious procedures involved in auction centres or for indebtedness to the buyers. The cost of transportation from farm to auction centre, grading charges, 1 per cent commission to the auctioneer, free samples, 21 days waiting period to receive payment or 15-21 per cent interest to be paid for getting immediate cash and the time involved in all these formalities added up to 5 to 8 percent of the price obtained. So it was not surprising that substantial quantities of cardamom were traded outside the auctions.

In manual auction, the dealers (buyers) sometimes colluded (formed cartels) to depress the prices in the market. This phenomenon quite often vitiated the transparency of the system and adversely affected the efficiency of the price discovery mechanism.

The auction resulted in a “buyers’ market”, for the buyer had full information about the demand for and supply of the product. The farmer, as a result, was always at the mercy of the buyer.

In order to avoid tax burden, majority of the farmers preferred to sell directly to the dealers rather than at the auctions. But the transactions outside the auction were based on the prices determined in the auctions. As a consequence, the real production status of the crop in the district couldn't be available in a realistic picture due to obvious reasons.

#### **4.3.2 Rules and Regulations Applicable to Licensed Auctioneers**

As per the Cardamom (Licensing & Marketing) Rules, 1987, auctioneer means a person engaged in the business of conducting cardamom auctions.

**a) Licensing of Cardamom Auctioneers**

- Any person desiring to get licence as auctioneer may submit:
- Application in the prescribed Form (Form A)
- Registration fee of Rs. 5000/- ( Rupees five thousand only) by Demand Draft favouring “ Spices Board”. The DD should be drawn on any scheduled bank payable at “ Ernakulam”.
- Confidential Bank certificate in prescribed format in sealed cover in support of the financial status of the applicant.
- Self certified copy of PAN card.
- Self certified copy of CST/GST/VAT certificate

Passport size photo preferably with white background of the CEO or the designated officer of the firm duly mentioning the name to the person and the company represented for issue of ID card.

**b) Terms and Conditions for Issue or Renewal of Licences**

The applicant shall provide a security deposit in the form of a Bank Guarantee (equivalent to the average auction sale value of cardamom in one auction during the immediate preceding block period of three years) for the block period for which the applicant desires to obtain the auctioneer licence.

An auctioneer shall pay a user fee of Rs. 300/- per tonnes of cardamom sold in an auction plus service tax as applicable. The user fee shall be increased by 25 per cent rounded to the nearest Rs.10/- for every succeeding block period. (Bank Guarantee shall not be applicable for manual auction, manual auctioneer licence shall not be issued in a State where the Board has established common e-Auction centres.

**c) Renewal of licence.**

For renewing the licence as an auctioneer, the applicant have to submit his application to the Board in ‘Form A’, on or before 30th June of the year in which the validity of the licence expires. The Board may entertains application for renewal of licence upto the date

of expiry of validity (3 years) of licence on payment of an additional fee of Rs. 2750/- for the delay of every month.

**d) Eligibility of the Participants in the Auction**

Only licensed traders of cardamom who are permitted by the management of the auctioneer can take part in the auctions conducted each week. The auctioneer reserves the right to restrict admission to any bidder/ trader for auction without assigning any reason. Non-payment of the purchase value within the specified period could be treated as a violation of the condition of license.

**e) Procedure for Collecting the Sample**

The auctioneer shall draw 1500 gms out of each lot of cardamom offered for pooling and the quantity of the sample drawn shall be recorded in the crop slip issued to the person whose cardamom is pooled. Out of the sample drawn, 100 gms shall be set aside as purchaser sample and 50 grams shall be put on display at the auction centre.

The remaining 1350 gms shall be used by the auctioneer for distributing as samples during the bidding process of the said lot.

The auctioneer shall refund the value of 1350gms of cardamom to the growers from the sample drawn. Thereafter, the total amount payable by the auctioneer to the person who pooled the cardamom shall be the sum of the sample refund value and the value for which the lot has been sold in an auction after deducting the eligible one per cent commission on the total amount. No additional charges shall be deducted in the name of wastage, weight loss and charity.

The produce bought by a farmer is considered as a lot and there are no quantity specifications or rules regarding the minimum quantity that can be put up for auction and maximum lot size. Normally the farmers will bring quantity in between 20 kg and 500 kg. They won't bring quantity more than 500 kg, in order to avoid risk of loss that may happen, if the farmer didn't get better price for a lot.

**f) Payment of Auction Price to the Planters**

The auctioneer should recover payment due from bidders within 10 days from the date of the auction and clear the dues to the growers within twelve days from the date of auction.

**g) Breach of contract**

If the auctioneer defaults to make payment as per the terms and conditions of the licence, the Board shall invoke the Bank Guarantee of the auctioneer forthwith for arranging settlement of amount due to growers and take steps for suspension and/or cancellation of the licence. The dealers should pay the auctioneers the value of the cardamom purchased in respect of an auction within 10 days from the date of auction. Non-payment of the purchase value within the specified period shall be treated as a violation of the condition of license.

**h) Registers to be maintained by auctioneers and its reporting to Spices Board**

The auctioneer has to maintain a register which contains License No., Auction No., Date of Auction, Season of the crop, Maximum price, Minimum price, Average price.

Separate report ('Form C') should be furnished for auctioning of cardamom received from (1) Planter and (2) Dealer. It should have name and full address of planter/ local dealer, estate registration no, / Broad license no, quantity put for auction (kg), quantity sold, rate per kg, value, commission, name and full address of bidder, license of bidder and remarks

The auctioneer shall send to the Spices Board an extract of the register which contains the above details within seven days from the date of auction.

The auctioneer will also send an advance report of the auction on the next day of auction which contains name and address of the auctioneer, license number, season, auction number, date of auction, quantity carried over from previous auction (kg.), fresh arrivals (kg.), total quantity put for auction (kg.), total quantity sold (kg.), quantity

withdrawn (kg.), quantity returned to planters (kg.), balance with the auctioneer (kg.), total value of sales(Rs.), and average price (Rs/kg.).

**i) Commission for auctioneers.**

The auctioneer cannot charge more than one percent of the sale price as commission for the services rendered by him.

The auctioneer cannot take or accept for himself or on behalf of the purchaser any discount or payment in cash or in kind from owners who bring their cardamom for auction over and above the one per cent commission due to him. The auctioneer shall ensure that the owner gets his value for the entire quantity of cardamom sold in the auction.

**j) Inspection of Board**

The auctioneer can conduct the auction at a place and on a day and time specified by the Board.

**k) Delivery of goods**

Once the payment is received from the trader by cash or demand draft in favour of the auctioneer, then he arranges to deliver the commodity at the trader's site. The auctioneer reserves the right to insist on payment by cash or demand draft instead of cheques.

**l) Transfer of business**

When an auctioneer transfers his business to another person, the auctioneer shall intimate the same to the Board and surrender his licence and the transferee shall obtain a fresh licence under the Cardamom (Licensing and Marketing) Rules, 1987.

**m) Death of licensee**

When a licensee dies, the original license shall deem to have been terminated and if more persons than one claim to be heirs of the deceased, the heir or each of the heirs shall apply to the Board for the issue of a fresh license for the same

### 4.3.3. Management of risk

If the bid price of a lot is below the reserve price, it is a control price put forward by the planter and the auctioneer will use it as a starting figure in order to start auctioning and as they are in the cardamom auctioning since long time, they are able to fix a price randomly seeing the quality of the lot and its market value), the lot will be withdrawn from auction and the same will be put up for auction on the next auction day. Even then, if that lot remains unsold, the lot will be returned to the planters concerned or will be put for auction on the next day by the same auctioneer or some other auctioneer, at the discretion of the planter. The planter/ farmer and the traders have the full right to choose the auctioneer and to trade with more than one auctioneer.

The entire quantity of cardamom will not be carried to the e-Auction centre only the samples (1500 gms) will be brought and if a trader purchases a lot, the auctioneer will deliver the lot to the trader within 24 hours.

It is not allowed to bid below reserve price and normally such a situation will not arise. But if the farmer wants to bring the produce to auction again, he is completely free to choose any auctioneer but he has to register his cardamom through collection depots of the newly selected auctioneer and the auctioneer will draw 1500 gms out of each lot and all the procedures have to be complied again.

The produce bought by a farmer is considered as a single lot and there are no quantity specifications or rules regarding the minimum or maximum quantity that can be put up for auction. Normally the farmers will bring quantity in between 20 kg and 500 kg. They won't bring quantity more than 500 kg, in order to avoid risk of loss that may happen, if the farmer don't get better price for a lot.

#### **4.4 Performance of Cardamom e-Auction System in India**

The Spices Board had set up Spices Parks to facilitate cultivation, post harvesting processing, packaging, storage and grading. Besides, Spices Park also facilitates electronic auction (e-Auction) centre within its premises for efficient trading and price discovery. Specifically, in cardamom, two such e-auction centers are facilitated by the Spices Board: one in Bodinayakanur in 2009 and another at the Spices Park at Puttady in 2010. Spices Board imparted training to dealers, auctioneers and planters in e-Auction in January 2008. Finally, e-Auction became operational from February 2008.

Spices Board has granted license to twelve auctioneers. They are MAS Enterprise Ltd. (MAS), South Indian Green Cardamom Company Ltd.(SIGCC), Header System (India) Pvt. Ltd.(HEADER), Cardamom Planters' & Marketing Co-op. Society Ltd.(CPMC), Kerala Cardamom Processing & Marketing Company Ltd.(KCPMC), Vandenmedu Green Gold Cardamom Producer Co. Ltd.(VGGCP), Sugandhagiri Spices Promoters & Traders Pvt. Ltd. (SSPTP), Idukki Dist. Traditional Cardamom Producer Company Ltd. (IDTCPC), Cardamom Growers Federation (CGF), State Trading Corporation (STC) Greenhouse Cardamom Co. Ltd., (GHCC) and Cardamom Planters Association-Santhanparai (CPA).



#### 4.4.1 Turnover of the Auctioneers

**Table 4.8 The annual turnover of the auctioneers (FY 2016-17)**

Sl. No.	Auctioneer	E-AUCTION (FY 2016-17)	
		Quantity sold (tonnes)	Percentage Share of each
1	MAS Enterprise Ltd.	2981.18	13.43
2	South Indian Green Cardamom Company Ltd.	2870.97	12.94
3	Header System (India) Pvt Ltd.,	2784.18	12.54
4	Cardamom Planters' & Marketing Co-op. Society Ltd	2645.58	11.92
5	Kerala Cardamom Processing & Marketing Company Ltd.	2175.61	9.80
6	Vandenmedu Green Gold Cardamom Producer Co. Ltd.	2047.67	9.22
7	Sugandhagiri Spices Promoters & Traders Pvt. Ltd.	1498.08	6.75
8	Idukki Dist. Traditional Cardamom Producer Company Ltd	1492.31	6.72
9	Cardamom Growers Federation	1436.66	6.47
10	State Trading Corporation	1147.77	5.17
11	Greenhouse Cardamom Mktg. India Pvt. Ltd	581.03	2.61
12	Cardamom Planters Association-Santhanparai	525.10	2.36
	<b>Total</b>	<b>22186.14</b>	<b>100</b>

Source: e-Auction centre, Puttady

According to the table, the annual total turnover (Qty) in the e-Auction centre during the Financial Year 2016-17 was 22186 tonnes. MAS Enterprise Ltd. had a turnover of 2981.18 tonnes and a market share of 13.47 per cent in the Financial Year 2016-17 followed closely by South Indian Green Cardamom Company Ltd., with a turnover of 2871 tonnes and a market share of 12.94 per cent and Header System (India) Pvt Ltd., with a turnover of 2784 tonnes and market share of 12.54 per cent. Greenhouse Cardamom Mktg. India Pvt. Ltd with a turnover of 581 tonnes and a market share of 2.61

per cent and Cardamom Planters Association-Santhanparai with a turnover of 525 tonnes and a market share of 2.36 per cent was last in the position.

#### 4.4.2 Comparison of the performance of twelve auctioneers

Table 4.9. The annual performance of the auctioneers (FY 2016-17)

Sl. No.	Auctioneer	E-AUCTION (FY 2016-17)					
		No. of auctions conducted	No. of lots put for sale	No. of lots withdraw	No. of lots auctioned	Quantity Sold (Tonnes)	Average price (Rs.)
1	MAS Enterprises Ltd.	50	16919	885	16034	2981.18	990.37
2	South Indian Green Cardamom Company Ltd.	47	15311	534	14777	2870.97	1020.75
3	Header System (India) Pvt. Ltd.	48	14304	619	13685	2784.18	986.93
4	Cardamom Planters' & Marketing Co-op. Society Ltd.	49	11626	225	11401	2645.58	1011.50
5	Kerala Cardamom Processing & Marketing Co. Ltd.	49	10933	932	10001	2175.61	1008.71
6	Vandenmedu Green Gold Cardamom Producer Co. Ltd.	47	11343	551	10792	2047.67	1032.68
7	Sugandhagiri Spices Promoters & Traders Pvt. Ltd.	44	8577	302	8275	1498.08	1013.86
8	Idukki Dist. Traditional Cardamom Producer Co. Ltd	44	8507	332	8175	1492.31	1017.05
9	Cardamom Growers Federation	43	9812	691	9121	1436.66	996.80
10	State Trading Corporation	44	7395	417	6978	1147.77	983.03
11	Greenhouse Cardamom Co.Ltd.	46	4216	440	3776	582.92	978.47
12	Cardamom Planters Association-Santhanparai	25	3958	491	3467	525.10	892.42
	<b>Total</b>	<b>536</b>	<b>122901</b>	<b>6419</b>	<b>116482</b>	<b>22188.03</b>	<b>11932.57</b>

Source: Secondary data, e-Auction centre, Puttady

It is clear from the table that, MAS Enterprises Ltd. led the pack in terms of the number of lots auctioned and the quantity sold. In the financial year 2016-17 they sold 2981 tonnes of cardamom by auctioning 16034 lots.

The second best performance was by South Indian Green Cardamom Company Ltd. with a sales of 2871 tonnes from 14777 lots auctioned. Header System (India) Pvt. Ltd. and Cardamom Planters' & Marketing Co-op. Society Ltd. were third and fourth in terms of quantity sold and number of lots auctioned.

It is obvious from the table that Cardamom Planters Association-Santhanparai conducted the lowest number of auction (25). The number of lots put for auction by them was 3958 and the number of lots auctioned was 3467. And there sales turnover was Rs. 525.

In terms of average price, the best performance was by Vandenmedu Green Gold Cardamom Producer Co. Ltd. (Rs.1033 per Kg) followed by South Indian Green Cardamom Company Ltd. (Rs.1021 per Kg).

#### **4.4.3 Month-wise performance of auctioneers in e-Auction (2016-17)**

Month-wise performance of all the 12 auctioneers in e-Auction centre with regard to the number of auctions conducted, number of lots put for auction, number of lots auctioned, quantity sold, average price are shown in Table 4.10., Table 4.11., Table 4.12., Table 4.13., Table 4.14.

**Table 4.10 Month-wise performance of auctioneers - Number of auctions conducted (2016-17)**

Month	No. of auctions conducted														TOTAL
	MAS	Header	KCPMC	CPMC	GHCC	SIGCC	VGGCP	CGF	STC	SSPAT	IDTCPC	CPA			
April	5	4	3	3	5	4	4	4	5	5	4	0	46		
May	4	5	4	4	4	4	3	2	2	3	4	4	43		
June	4	4	5	5	4	4	5	3	3	3	4	3	47		
July	5	4	4	4	5	4	3	5	5	3	4	4	50		
August	4	4	4	4	4	4	4	4	4	4	3	3	46		
September	4	4	5	5	3	4	3	3	4	3	3	3	44		
October	4	4	4	4	4	4	4	4	4	4	4	3	47		
November	4	4	3	3	3	4	5	3	3	4	3	1	40		
December	5	3	5	5	3	3	3	5	5	3	4	1	45		
January	3	5	3	3	3	5	4	3	3	4	4	0	40		
February	4	3	4	4	4	3	4	4	4	5	4	2	45		
March	4	4	5	5	4	4	5	3	2	3	3	1	43		
Total	50	48	49	49	46	47	47	43	44	44	44	25	536		

Source: e-Auction centre, Spices Board, Puttady.

From the table it is clear that, 536 auctions were conducted during the Financial year 2016-17. MAS Enterprises Ltd., conducted the maximum number of auction (50) and it conducted 5 auctions each in the month of April, July and December. It was followed by Kerala Cardamom Processing & Marketing Company Ltd and Cardamom Planters' & Marketing Co-op. Society Ltd with 49 auctions

each. Cardamom Planters Association-Santhanparai was able to conduct only 25 auctions and it did not conduct auction in the month of April and January.

**Table 4.11 Month-wise performance of auctioneers - Number of lots put for auction (2016-17)**

Month	No. of lots put for auction														Total
	MAS	Header	KCPMC	CPMC	GHCC	SIGCC	VGGCP	CGF	STC	SSPAT	IDTCP	CPA			
April	2059 (12.17)	1610 (11.25)	872 (7.98)	935 (8.04)	831 (19.71)	1746 (11.40)	1247 (10.99)	1335 (13.58)	1272 (17.20)	1086 (12.66)	1181 (13.88)	0 (0)			
May	1408 (8.32)	1421 (9.93)	740 (6.77)	885 (7.61)	399 (9.46)	1301 (8.50)	818 (7.21)	504 (5.13)	304 (4.11)	652 (7.60)	844 (9.92)	832 (25.20)			
June	1442 (8.52)	1228 (8.58)	880 (8.05)	1091 (9.38)	419 (9.94)	1184 (7.73)	1289 (11.36)	764 (7.77)	412 (5.57)	618 (7.21)	866 (10.18)	415 (12.57)			
July	1635 (9.66)	881 (6.15)	565 (5.17)	640 (5.50)	414 (9.82)	1019 (6.66)	635 (5.60)	1215 (12.36)	494 (6.68)	605 (7.05)	584 (6.86)	432 (13.09)			
August	1294 (7.65)	1315 (9.19)	657 (6.01)	691 (5.94)	415 (9.84)	1198 (7.82)	1132 (9.98)	1100 (11.19)	395 (5.34)	867 (10.11)	438 (5.15)	411 (12.45)			
September	1523 (9)	1366 (9.54)	1036 (9.48)	1109 (9.54)	388 (9.20)	1487 (9.71)	993 (8.75)	957 (9.74)	725 (9.80)	798 (9.30)	624 (7.34)	73 (2.21)			
October	1651 (9.76)	1458 (10.19)	1211 (11.08)	1171 (10.07)	474 (11.24)	1657 (10.82)	1377 (12.14)	1297 (13.19)	1052 (14.23)	979 (11.41)	1002 (11.78)	774 (23.45)			
November	1187 (7.02)	1050 (7.34)	635 (5.81)	648 (5.57)	227 (5.38)	1114 (7.28)	1035 (9.12)	558 (5.68)	666 (9.01)	678 (7.90)	456 (5.36)	67 (2.03)			
December	1564 (9.24)	899 (6.28)	1317 (12.05)	1330 (11.44)	158 (3.75)	869 (5.68)	418 (3.69)	947 (9.63)	779 (10.53)	500 (5.83)	660 (7.76)	95 (2.88)			
January	937 (5.54)	1519 (10.61)	833 (7.62)	812 (6.98)	145 (3.44)	1619 (10.57)	726 (6.40)	489 (4.97)	503 (6.80)	662 (7.72)	802 (9.43)	0 (0)			
February	1173 (6.93)	837 (5.85)	1166 (10.66)	1189 (10.23)	181 (4.29)	1091 (7.13)	869 (7.66)	415 (4.22)	526 (7.11)	702 (8.18)	651 (7.65)	107 (3.24)			
March	1046 (6.18)	720 (5.03)	1021 (9.34)	1125 (9.68)	165 (3.91)	1026 (6.70)	804 (7.09)	249 (2.50)	267 (3.61)	430 (5.01)	399 (4.69)	95 (2.88)			
Total	16919	14304	10933	11626	4216	15311	11343	9830	7395	8577	8507	3301	122262		

Source: e-Auction centre, Spices Board, Puttady.

Note: Figures in the bracket indicate percentage to total

The table indicates that during the year 2016-17, 122262 lots were put for auction and in that MAS put up the maximum number of lots (16919) and during the month of April it put up 12 per cent of the lots. And during the month of April, VGGCP had put up 20 per cent of the lots, followed by STC with 17 per cent. SIGCC holds the second position with 15311 lots and Head the third position with 14304 lots. Only 3301 lots were put up for auction by CPA.

**Table 4.12. Month-wise performance of auctioneers - Number of lots auctioned (2016-17)**

Months	Number of lots auctioned													Total
	MAS	Header	KCPMC	CPMC	GHCC	SIGCC	VGGCP	CGF	STC	SSPAT	IDTCP	CPA		
April	2000 (12.47)	1563 (11.42)	867 (8.67)	928 (8.14)	808 (21.40)	1540 (10.42)	1113 (10.31)	1308 (14.34)	1241 (17.78)	1080 (13.05)	1162 (14.21)	0 (0)	13610	
May	1344 (8.38)	1367 (9.99)	722 (7.22)	859 (7.53)	317 (8.40)	1263 (8.55)	785 (7.27)	468 (5.13)	287 (4.11)	627 (7.58)	811 (9.92)	718 (20.79)	9568	
June	1396 (8.71)	1178 (8.61)	75 (0.75)	1076 (9.44)	392 (10.30)	1173 (7.94)	1267 (11.74)	699 (7.66)	386 (5.53)	612 (7.40)	833 (10.19)	382 (11.01)	9469	
July	1507 (9.40)	796 (5.82)	560 (5.60)	630 (5.52)	375 (9.93)	1007 (6.81)	623 (5.77)	1105 (12.11)	439 (6.29)	579 (7.00)	541 (6.62)	377 (10.87)	8539	
August	1201 (7.49)	1222 (8.93)	642 (6.42)	675 (5.92)	372 (9.85)	1165 (7.88)	1066 (9.88)	980 (10.74)	334 (4.79)	829 (10.02)	404 (4.94)	340 (9.80)	9230	
September	1374 (8.57)	1274 (9.31)	1028 (10.28)	1076 (9.44)	300 (7.94)	1415 (9.58)	893 (8.27)	831 (9.11)	657 (9.42)	748 (9.04)	581 (7.11)	619 (17.85)	10796	
October	1572 (9.80)	1432 (10.46)	1207 (12.07)	1162 (10.19)	414 (10.96)	1618 (10.95)	1359 (12.59)	1224 (13.42)	1017 (14.57)	962 (11.63)	990 (12.11)	708 (20.42)	13665	
November	1109 (6.92)	1029 (7.52)	616 (6.16)	621 (5.45)	209 (5.53)	1081 (7.32)	894 (8.28)	527 (5.78)	644 (9.23)	659 (7.96)	450 (5.50)	61 (1.75)	7373	
December	1495 (9.32)	854 (6.24)	1297 (12.97)	1299 (11.39)	141 (3.73)	851 (5.76)	415 (3.85)	901 (9.88)	720 (10.32)	482 (5.82)	629 (7.69)	87 (2.50)	9171	
January	911 (5.68)	1491 (10.90)	828 (8.28)	808 (7.09)	137 (3.63)	1590 (10.76)	720 (6.67)	475 (5.21)	495 (7.09)	632 (7.64)	769 (9.41)	0 (0)	8856	

February	1122 (7.00)	791 (5.78)	1152 (11.52)	1166 (10.22)	155 (4.10)	1064 (7.20)	861 (7.98)	380 (4.17)	494 (7.08)	662 (8.60)	628 (7.68)	92 (2.65)	8567
March	1003 (6.26)	688 (5.03)	1007 (10.07)	1101 (9.62)	156 (4.13)	1010 (6.83)	796 (7.38)	223 (2.44)	264 (3.78)	403 (4.87)	377 (4.61)	83 (2.39)	7111
Total	16034	13685	10001	11401	3776	14777	10792	9121	6978	8275	8175	3467	116482

Source: e-Auction centre, Spices Board, Puttady.

Note: Figures in the bracket indicate percentage to total.

From the table, it is obvious that MAS auctioned the maximum number of lots (16034) in the year 2016-17, followed by SIGCC (14777 lots) and Header (13685 lots). Only 3467 lots were auctioned by CPA. During the month of April 2016, VGGCP auctioned 21 per cent followed by STC (18 per cent) and CGF (14 per cent).

**Table 4.13 Month-wise performance of auctioneers - Quantity sold (2016-17)**

Month	Quantity Sold (Kg.)												
	MAS	Header	KCPMC	CPMC	GHC	SIGCC	VGGCP	CGF	STC	SSPAT	IDTCPC	CPA	Total
April	460.10 (15.43)	384.14 (13.80)	198.95 (9.15)	247.6 (9.36)	154.78 (26.55)	361.98 (12.61)	258.25 (12.62)	230.73 (10.88)	231.5 (20.18)	215.43 (14.38)	241.64 (16.20)	0	2985.1
May	271.02 (9.09)	272.56 (9.79)	150.76 (6.93)	218.92 (8.28)	53.58 (9.19)	250.37 (8.72)	150.36 (7.35)	759.68 (35.83)	48.62 (4.24)	123.46 (8.24)	160.63 (10.77)	120.22 (22.86)	2580.1
June	266.70 (8.95)	235.68 (8.47)	193.61 (8.90)	267.86 (10.13)	60.66 (10.40)	232.33 (8.10)	231.11 (11.29)	112.6 (5.31)	63.39 (5.53)	109.37 (7.30)	163.00 (10.92)	59.63 (11.34)	1995.9
July	288.66 (9.68)	158.75 (5.70)	114.46 (5.26)	139.73 (5.28)	55.30 (9.49)	178.59 (6.22)	106.84 (5.22)	174.7 (8.24)	69.94 (6.10)	104.07 (6.95)	102.06 (6.84)	50.72 (9.64)	1543.8
August	199.24 (6.68)	246.05 (8.84)	131.77 (6.06)	140.20 (5.30)	44.50 (7.63)	196.26 (6.84)	188.86 (9.23)	148.25 (6.99)	50.26 (4.38)	149.02 (9.95)	79.64 (5.34)	46 (8.75)	1620.0

September	232.06 (7.78)	253.74 (9.11)	189.39 (8.71)	228.35 (8.63)	35.51 (6.09)	265.23 (9.24)	175.52 (8.57)	128.75 (6.07)	95.6 (8.33)	147.61 (9.85)	103.97 (6.94)	89.11 (16.94)	1944.8
October	309.38 (10.38)	305.57 (10.98)	259.69 (11.94)	274.39 (10.37)	61.75 (10.59)	351.90 (12.26)	271.69 (13.27)	198.3 (9.37)	168.48 (14.69)	185.38 (12.38)	191.47 (12.83)	116.06 (22.06)	2694.0
November	205.36 (6.89)	226.12 (8.12)	118.93 (5.47)	141.88 (5.36)	33.63 (5.77)	216.00 (7.53)	172.33 (8.42)	86.0 (4.06)	107.45 (9.37)	123.80 (8.26)	75.91 (5.09)	8.96 (1.70)	1516.3
December	246.32 (8.26)	159.24 (5.72)	246.49 (11.33)	303.72 (11.48)	17.13 (2.98)	149.88 (5.22)	71.88 (3.51)	132.9 (6.27)	115.39 (10.06)	75.66 (5.05)	99.03 (6.64)	10.46 (1.99)	1628
January	153.67 (5.15)	277.46 (9.97)	151.06 (6.95)	174.12 (6.58)	18.73 (3.21)	290.37 (10.12)	125.46 (6.13)	67.15 (3.17)	74.37 (6.48)	94.43 (6.30)	126.59 (8.48)	0 (0)	1553.4
February	187.36 (6.29)	143.80 (5.17)	234.88 (10.80)	259.40 (9.81)	24.16 (4.14)	203.03 (7.07)	153.17 (7.48)	52.9 (2.50)	78.64 (6.86)	105.63 (7.05)	94.48 (6.33)	13.03 (2.48)	1550.4
March	161.25 (5.41)	121.02 (4.35)	185.55 (8.53)	249.25 (9.42)	23.19 (3.98)	174.98 (6.10)	142.16 (6.94)	28.08 (1.32)	44.07 (3.84)	64.16 (4.28)	53.82 (3.61)	11.91 (2.26)	1259.4
Total	2981.18	2784.18	2175.61	2645.58	582.92	2870.97	2047.67	2120.04	1147.71	1498.02	1492.24	526.1	22872.2

Source: e-Auction centre, Spices Board, Puttady.

Note: Figures in the bracket indicate percentage to total.

According to the table, in the Financial Year 2016-17 MAS Enterprise Ltd., sold the maximum quantity (2981 tonnes), followed by South Indian Green Cardamom Company Ltd., (2870 tonnes), Header System (India) Pvt Ltd.,(2784 tonnes), Kerala Cardamom Processing & Marketing Company Ltd (2175.61 tonnes) and Cardamom Planters' & Marketing Co-op. (2645.58 tonnes). Cardamom Planters Association-Santhanparai sold the minimum quantity (526.1 tonnes). During the month of April 2016, Green Gold Cardamom Producer Co. Ltd. sold 27 per cent followed by State Trading Corporation (20 per cent) and MAS Enterprise Ltd.(16 per cent).



**Table 4.14. Month-wise performance of auctioneers - Average Price (2016-17)**

Month	Average Price (Rs.)													
	MAS	Header	KCPMC	CPMC	GHC	SIGCC	VGGCP	CGF	STC	SSPAT	IDTGPC	CPA	Average	
April	643.62	627.59	639.69	647.08	665.08	655.38	648.23	617.4	618	638	655	0	587.92	
May	684.50	699.62	697.45	710.82	710.39	706.20	707.56	688	679	696	711	669	696.63	
June	743.40	751.13	739.72	735.40	718.43	776.17	744.09	702	695	705	782	713	733.78	
July	795.81	783.5	797.55	791.55	775.63	815.13	816.84	789	777	791	814	741	790.67	
August	922.93	925.91	914.88	912.45	913.07	946.13	954.08	896	895	969	928	881	921.54	
September	948.76	934.04	974.81	961.67	927.68	989.58	952.3	927	948	941	987	944	952.99	
October	1000.08	1014.13	1041.98	1037.7	1002.51	1048.45	1030.60	1024	1036	1029	1078	977	1026.62	
November	1234.08	1254.51	1235.1	1226.17	1222.84	1286.40	1265.73	1244	1223	1236	1317	1206	1245.90	
December	1215.5	1179.37	1219.71	1231.06	1184.57	1195.74	1210.77	1195	1110	1185	1197	1175	1191.56	
January	1338.28	1330.21	1361.3	1365.12	1359.77	1359.20	1380.68	1374	1365	1358	1329	0	1243.38	
February	1327.37	1267.66	1316.18	1339.41	1341.05	1304.73	1328.52	1303	1317	1319	1317	1314	1316.24	
March	1206.14	1179.85	1196.596	1207.44	1244.97	1195.98	1211.21	1149	1166	1168	1173	1114	1184.35	
Average	990.37	986.93	1008.71	1011.50	978.47	1020.75	1032.68	992	986	1003	1024	811	987.13	

Source: e-Auction centre, Spices Board, Puttrady.

From the table it is observed that, the average price realized was highest in the auction held by Vandenmedu Green Gold Cardamom Producer (Rs. 1032.68) followed by South Indian Green Cardamom Company (Rs. 1020.751) and Cardamom Processing & Marketing Company Ltd (Rs. 1011.50). The lowest average price was realized by Cardamom Planters Association-Santhanparai (Rs.811).

#### 4.4. Perception of Auctioneers About the Effectiveness of e-Auction and Open Auction of Cardamom

The effectiveness of the e-Auction and open auction was measured in terms of the satisfaction of the auctioneers.

The satisfaction was measured in terms of 26 statements in case on a five point scale. The five categories of responses were 'strongly agree', 'agree', 'no opinion', 'disagree' and 'strongly disagree' and the respective scores were '+2', '+1', '0', '-1', '-2'.

*Index for each statement*

$$= \frac{\text{Total scores obtained for the statement}}{\text{Maximum obtainable score for the statement}} \times 100$$

*Total score obtained for the statement*

$$= (a \times 2) + (b \times 1) + (c \times 0) + (d \times -1) + (e \times -2)$$

Where,

**a** = No. of respondents saying Perfectly Acceptable

**b** = No. of respondents saying Acceptable

**c** = No. of respondents saying Neutral

**d** = No. of respondents saying Unacceptable

**e** = No. of respondents saying totally unacceptable

*Maximum obtainable score for a statement*

$$= \text{Maximum score obtainable for the opinion} \\ \times \text{Total number of respondents}$$

After calculating the individual index the next step was to find out the composite index (CI) of the attributes. It was calculated by using the formula:

$$CI = \frac{\text{Total score obtained for the attribute}}{\text{Maximum score} \times \text{Number of Respondents} \times \text{Number of Statements}} \times 100$$

Table 4.15 shows the satisfaction indices of auctioneers with e-Auction and open auction systems.

**Table 4.15 Effectiveness of e-Auction and Open Auction System by Auctioneers**

Sl. No.	Parameter	e-Auction		Open auction	
		Index	Zone	Index	Zone
1	Arrival of cardamom is more	42	III	7.1	III
2	Method of drawing sample is simple	50	III	0	III
3	Correct weights and measures	85	IV	64	IV
4	Greater participation of planters ensured	42	III	7.1	III
5	Auction is conducted systematically	42	III	-14	II
6	Auction is completed in less time	78	IV	21	III
7	Auction day is convenient	92	IV	64	III
8	Good infrastructure for conducting auction	100	IV	50	III
9	Price discovery mechanism is efficient	50	III	-35	II
10	It gives better prices to the planters	85	IV	-42	II
11	Transparent trading	92	IV	-78	I
12	Display of main board which shows auction proceedings	100	IV	-42	II

13	It reduces the price risk for planters and traders	92	IV	-57	I
14	Reduce Transaction Cost	-50	II	-42	II
15	It ensures higher price for graded cardamom	78	IV	50	III
16	It generates more sales turnover per auction	35	III	0	III
17	Time taken for auctioning each lot is enough	92	IV	50	III
18	Price volatility is high in the morning session of the trade (auction)	14	III	21	III
19	It reduces administrative cost of auctioneers	-21	II	-14	II
20	It reduces the marketing cost of farmers	50	III	35	III
21	It reduces the marketing cost of traders	64	IV	-28	II
22	Easy access to the auction centre	50	III	64	IV
23	Spices Board helps in providing technical know-how about cardamom trading	85	IV	71	IV
24	Following this marketing channel my commission has gone up	0	III	0	III
25	I would like to continue with this method of trading	100	IV	-57	I
26	I would like to extend my area of operation	50	III	21	III
	Composite value	8.28	III	3.80	III

Source: Compiled from primary data.

### e-Auction System

According to the table, the auctioneers were 'highly satisfied' with 12 out of 26 variables considered. They expressed high level of satisfaction with regard to variables such as 'correct weights and measures'(S3), 'auction is completed in less time'(S6), 'auction day is convenient' (S7), 'good infrastructure for conducting auction'(S8), 'better prices to the planters'(S10), 'transparent trading'(S11), 'display of main board which shows auction proceedings'(S12), 'reduced the price risk for planters and traders'(S13), 'higher price for graded cardamom'(S15), 'time taken for auctioning each lot is enough(S17)', 'reduced marketing cost of traders'(S21) and 'Spices Board helps in providing technical know-how about cardamom trading' (S23). And cent per cent of them expressed their desire to continue with this method of trading (S25).

However, the auctioneers were only 'satisfied' with 'more arrival of cardamom'(S1), 'method of drawing sample is simple'(S2), 'Greater participation of planters ensured'(S4), 'Auction is conducted systematically'(S5), 'efficient price discovery mechanism'(S9), 'more sales turnover per auction'(S16), 'high price volatility in the morning session of the trade' (S18), 'reduced the marketing cost for farmers'(S20), 'easy access to the auction centre' (S22), 'following this marketing channel my commission has gone up'(S24), 'I would like to extend my area of operation'(S26).

The auctioneers were 'dissatisfied' with the variables such as 'higher administrative cost' (S19) and 'transaction cost for conducting auctions' (S14).

### Manual Auction System

In the case of manual auction system, the auctioneers expressed 'high satisfaction' with 'correct weights and measures' (S3), 'easy access to the auction centre'(S22) and 'support of Spices Board in providing technical know-how about cardamom trading'(S23).

However, the auctioneers were 'satisfied' with such as, 'variables arrival of cardamom is more'(S1), 'method of drawing sample is simple'(S2), 'greater participation of planters ensured'(S4), ' auction is completed in less time'(S6), 'auction day is convenient'(S7), 'good infrastructure for conducting auction'(S8), 'It ensures higher

price for graded cardamom'(S15), 'It generates more sales turnover per auction'(S16), 'Time taken for auctioning each lot is enough'(S17), 'Price volatility is high in the morning session of the trade (auction)' (S18), 'It reduces the marketing cost of farmers'(S20), 'I would like to extend my area of operation'(S26).

Auctioneers expressed 'dissatisfaction' with 'auction is conducted systematically' (S5), 'efficient price discovery mechanism' (S9), 'better prices to the planters' (S10), and 'I would like to continue with this method of trading' (S25), etc.

#### 4.6. Efficiency of the price discovery mechanism

The auction was supposed to bring in greater transparency, healthy competition and better price discovery. This system was aimed at facilitating error free documentation, speedy billing and invoicing and eliminating the chances of hidden costs.

##### 4.6.1. Concentration Ratio of Leading Auctioneers

Concentration ratio is used as a measure of the total quantity sold by the auctioneer by a 12 auctioneers in the business. Table 4.16. Shows the concentration ratio of leading auctioneers

**Table 4.16. Concentration Ratio of Leading Auctioneers**

Sl. No.	Auctioneer	E-AUCTION (FY 2016-17)	
		Quantity sold (tonnes)	Percentage Share of each
1	MAS Enterprises Ltd.	2981.18	13.43
2	South Indian Green Cardamom Company Ltd.	2870.97	12.94
3	Header System (India) Pvt. Ltd.	2784.18	12.54
4	Cardamom Planters' & Marketing Co-op. Society Ltd.	2645.58	11.92
5	Kerala Cardamom Processing & Marketing Company Ltd.	2175.61	9.80
6	Vandenmedu Green Gold Cardamom Producer Co. Ltd.	2047.67	9.22
7	Sugandhagiri Spices Promoters & Traders Pvt. Ltd.	1498.08	6.75

8	Idukki Dist. Traditional Cardamom Producer Company Ltd.	1492.31	6.72
9	Cardamom Growers Federation	1436.66	6.47
10	State Trading Corporation	1147.77	5.17
11	Greenhouse Cardamom Mktg. India Pvt. Ltd.	581.03	2.61
12	Cardamom Planters Association-Sanathanparai	525.10	2.36
<b>Total</b>		<b>22186.14</b>	<b>100</b>
<b>Concentration ratio</b>		<b>0.69</b>	<b>69</b>

Source: e-Auction centre, Puttady.

$$\text{Concentration ratio} = \frac{\text{Sum of the Sale of leading Auctioneers}}{\text{Total Quantity Sold}} \times 100\%$$

$$C4 = \frac{S1 + S2 + S3 + S4 + S5 + S6}{ST} \times 100\%$$

$$C4 = \frac{2981 + 2871 + 2784 + 2646 + 2176 + 2047}{22186} \times 100\%$$

$$C4 = \frac{15505.19}{22186} \times 100$$

$$C4 = 0.69 \times 100$$

$$C4 = 69\%$$

69 per cent means, there exist a monopolistic competition among the auctioneers. As the concentration ratio is 6.9 , it means that competition exist in between the auctioneers, 69 per cent of the total quantity is sold by 6 auctioneers and the rest 31 per cent is sold by the other 6 auctioneers. As competition exists and no auctioneer have a monopoly over the cardamom auctioning, better price discovery is possible

#### 4.6.2. Price Volatility of e-Auction centre, Puttady and the spot price of MCX during the Financial Year 2016-17

In order to calculate the price volatility of e-Auction price and MCX spot price, price of cardamom at auction centre and the MCX spot price during the Financial Year 2016-17 were taken. Price volatility means the degree of change in the price over time. If price volatility is high, it means high return on investment (ROI), and if the volatility is high the risk incurred will also be high. Table 17 shows the price volatility of e-Auction price and MCX spot price of cardamom for the financial year 2016-17.

**Table No. 4.17. Price volatility of e-Auction price and MCX spot price of cardamom (Financial Year 2016-17)**

Sl. No.	Months	Futures Price	e-Auction Price	Difference (Positive)
1	April 2016	749.78	587.92	161.86
2	May 2016	783.1455	696.63	86.51
3	June 2016	820.22	733.78	86.44
4	July 2016	886.2	790.67	95.53
5	August 2016	995.85	921.54	74.31
6	September 2016	1114.01	952.99	161.02
7	October 2016	1141.244	1026.62	114.62
8	November 2016	1324.819	1245.90	78.91
9	December 2016	1350.686	1191.56	159.12
10	January 2017	1430.471	1243.38	187.09
11	February 2017	1473.411	1316.24	157.17
12	March 2017	1438.827	1184.35	254.47
<b>Average Price</b>		1125.72	990.965	134.755
<b>Annual Standard deviation</b>		1%	3%	

Source : [www.mcxindia.com](http://www.mcxindia.com) and e-Auction Centre, Puttady.

From the above table it is clear that the average price of MCX spot market (Rs.1125.72) was higher than the average price at auction centre (Rs. 990.965), the



average price difference between them was Rs. 134.75. It may also be observed that the futures price was higher than the e-Auction price in all the months.

The annual standard deviation is calculated to measure the price volatility. e-Auction price had the higher annual standard deviation (3 per cent) when compared to annual standard deviation of MCX spot price (1 per cent) for the financial year 2016-17. Higher annual standard deviation means price volatility is higher. Therefore, e-auction price is more volatile than MCX spot price.

As the price volatility of e-auction centre is higher than MCX, it is more efficient in price discovery than futures market.

#### 4.6.3. Number of Dealers Participated in e-Auction, Puttady for 7 Days.

There are 60 terminals in the e-Auction centre, Puttady. Therefore, at a time 60 dealers can participate in the e-Auction conducted at Puttady. The table 18 shows the number of dealers participated in the e-Auction centre, Puttady for 7 days from 3<sup>rd</sup> October 2017 to 17<sup>th</sup> October 2017. Table No. 18 Shows the number of Dealers Participated in e-Auction, Puttady for 7 Days

**Table No. 18. The number of Dealers Participated in e-Auction, Puttady for 7 Days**

Sl. No.	Dates	No. of traders		
		Morning (10.00am - 2.00pm)	Afternoon (2.30 pm -6.30pm)	Total
1	16 <sup>th</sup> September 2017	47(78)	52(87)	99(82.5)
2	19 <sup>th</sup> September 2017	53(88)	51(85)	104(86)
3	21 <sup>st</sup> September 2017	54(90)	47(78)	101(84)
4	23 <sup>rd</sup> September 2017	52(87)	44(73)	96(80)
5	26 <sup>th</sup> September 2017	48(80)	53(88)	101(84)
6	28 <sup>th</sup> September 2017	49(82)	38(63)	87(72)
7	30 <sup>th</sup> September 2017	41(68)	49(82)	100(83)
	Total	344(84)	334(80)	678(81)

Source: e-Auction centre, Puttady.

According to the table, from 16<sup>th</sup> September 2017 to 30<sup>th</sup> October 2017 (7 days), 81 per cent of the dealers participated in the e-Auction. Maximum number of dealers (54) participated at the morning of 21<sup>st</sup> October 2017 and the least participation was 38 (63 per cent) on 28<sup>th</sup> October 2017 in the afternoon. This reveals that a good number of dealers participates in the auction and this will help the farmers to fetch greater price.

#### 4.3.7. Share of number of lots auctioned against number of lots put for auction.

**Table No.19 The auction turnover ratio**

Sl. No.	Month	No. of lot auctioned	No. of lots put for auction	Lots withdrawn	Percentage
1	April	13610	14174	564	96
2	May	9568	10108	540	95
3	June	9469	10608	1139	89
4	July	8539	9119	580	94
5	August	9230	9913	683	93
6	September	10796	11079	283	97
7	October	13665	14103	438	97
8	November	7373	8321	948	89
9	December	9171	9536	365	96
10	January	8856	9047	191	98
11	February	8567	8907	340	96
12	March	7111	7347	236	97
Total		115955	122262	6307	95

Source: e-Auction centre, Puttady.

From the above table it is obvious that out of 122262 tonnes of cardamom put for auction 115955 tonnes were auctioned (95 per cent). During the month of September, October and March 97 per cent of the cardamom brought for auction were auctioned. This shows the adeptness of e-Auction system and its efficiency in price discover.

**Chapter V**

***SUMMARY OF FINDINGS AND CONCLUSION***

## CHAPTER V

### SUMMARY OF FINDINGS, SUGGESTIONS AND CONCLUSION

Cardamom is one of the very important cash crops in India. Cardamom is an internationally traded commodity. The price of cardamom is subject to change from time to time depending on demand and supply. While the demand side is influenced by money and other factors which include the overall economic development, the supply side is influenced not only by economic factors but also by agro-climatic, biotic, and abiotic stress factors in the growing region. In order to regulate the players in the market and to establish systematic procedures of trade, Govt. of India in the year 1955-56 introduces manual auction system.

Contrary to the expectations, the manual auction system did not result in healthy competition at the auction hall. It lacked transparency and responsibility and failed to ensure fair price to the planters as the system was prone to rigging by big traders.

To overcome the problems inherent in the manual auctioning and to bring in greater transparency and accountability into the system the Spices Board introduced e-Auction system for cardamom..The first e-auction centre for cardamom in India was introduced in Tamil Nadu on 23<sup>rd</sup> August 2007 at Bodinayakanur and in Kerala, on 28<sup>th</sup> December 2007 at Puttady. Spices Board has granted license to twelve auctioneers. The licensed auctioneers conduct auctions on different days and time which are specified by the Spices Board.

Spices Board has established two e-Auction centres for cardamom trading: one in Bodinayakanur in 2009 and another at the Spices Park at Puttady in 2010

The specific objectives of the study were:

- i) To examine the efficiency of price discovery of cardamom through e-Auction.
- ii) To analyse the auctioneers behavior towards cardamom futures

The study was undertaken in Idukki district, the major cardamom growing district in Kerala. Idukki district was purposively selected for collecting data on the marketing aspects of cardamom, given the importance of cardamom cultivation in the district.

The data required for the study were collected from seven auctions, six from Puttady, Kerala e-Auction centre and one from Bodinayakanur, Tamil Nadu. And e-Auction centre Puttady.

Both primary and secondary data were used for the study. The primary data were collected from the selected auctioneers through personal interview method using a structured interview schedule. The secondary data were collected from various publications of the Spices Board, Farm Guide 2016 and from e-Auction centre, Puttady. The data thus obtained were analysed using percentages, composite index, standard deviation, concentration ratio and price volatility.

## **5.1. Findings**

### **5.1.1. Profile of the auctioneers**

In Kerala, the cardamom e-Auction is conducted at Puttady, three days a week (Tuesday, Thursday and Saturday). In Puttady e-Auction centre, six auctioneers are licensed to conduct the auction.

The e-Auction centres at Bodinayaknur (Tamil Nadu) functions on three days (Monday, Wednesday and Friday) and the auction is conducted by 6 registered auctioneers. They are Vandenmedu Green Gold Cardamom Producer Co. Ltd., Sugandhagiri Spices Promoters & Traders Pvt. Ltd., Vandenmedu, Idukki Dist. Traditional Cardamom Producer Co. Ltd., Vandenmedu, Cardamom Growers Federation, Bodinayakanur, State Trading Corporation, Bodinayakanur, Cardamom Planters Association-Santhanparai.

The seven auctioneers selected for the study were Cardamom Planters' & Marketing Co-op. Society Ltd.(CPMC), Thekkady, Kerala Cardamom Processing & Marketing Company Ltd., Thekkady, Header System (India) Pvt Ltd., Nedumkandam(KCPMC), MAS Enterprises Ltd., Vandenmedu, Green House Cardamom

Company Ltd., Bodinayakanur(GHCC), South Indian Green Cardamom Company Ltd., Vandenmedu(SIGCC), Vandenmedu Green Gold Cardamom Producer Co. Ltd. (VGGCP). Among them four are public limited companies, two are private limited companies and one is a co-operative society.

Except Vandenmedu Green Gold Cardamom Producer Co. Ltd., all the other selected auctioneers conducted auction at e-Auction centre at Puttady on the day allotted to them by the Spices Board. Vandenmedu Green Gold Cardamom Producer Co. Ltd., conducted auction at e-Auction centre at Bodinayakanur, Tamil Nadu.

In Puttady auction centre, e-Auction is conducted on 3 days: Tuesday, Thursday and Saturday and in Bodinayakanur auction centre, e-Auction is conducted on 3 days: Monday, Wednesday, Friday in a week. Therefore, e-Auction is conducted for 4 hours by each auctioneer on all days except Sunday.

e-Auction is conducted in the morning (10.00 am to 2.00 pm) and afternoon (2.30 pm to 6.30 pm) on alternate days from Tuesday to Saturday in Kerala.

Three auctioneers in Kerala (Cardamom Planters' & Marketing Co-op. Society Ltd., MAS Enterprises Ltd., South Indian Green Cardamom Company Ltd.,) conducted e-Auction at 10.00 am and 3 other auctioneers (Header System (India) Pvt Ltd., Kerala Cardamom Processing & Marketing Company Ltd., Green House Cardamom Co. Ltd., ) conducted e-Auction at 2.30 pm.

Vandenmedu Green Gold Cardamom Producer Co. Ltd., conducted e-Auction in the morning (10.00 am to 2.00 pm) on every Wednesday at Bodinayakanur, Tamil Nadu. The selected auctioneers also carried out other business like distribution of FMCG, farm inputs, etc.

### **5.1.2. Experience in Cardamom Auctioning**

The auctioneers had 4 to 22 years experience in auctioning. Cardamom Planters' & Marketing Co-op. Society Ltd. and Kerala Cardamom Processing & Marketing Company Ltd. had 22 years experience. The least experienced auctioneer was Vandenmedu Green Gold Cardamom Producer Co. Ltd. (4 years).

### **5.1.3. Marketing Ecosystem of Auctioneers**

The total collection depots for seven selected auctioneers were 65. MAS Enterprises Ltd., Vandenmedu had the largest number of collection depots (14) followed by South Indian Green Cardamom Company Ltd. (10) and Header System (India) Pvt Ltd., (10).

The other two auctioneers, (Kerala Cardamom Processing & Marketing Company Ltd. and Cardamom Planters' & Marketing Co-op. Society Ltd.) had 9 depots each. Green House Cardamom Co. Ltd., Bodinayakanur had 8 depots and Vandenmedu Green Gold Cardamom Producer Co. Ltd. had 5 depots.

Anavilasam (7) ,Vandenmedu (6), Nedugandam (6), Parathode (6) and Puliyanmala(5) are the main collection centres of cardamom for all the selected auctioneers. All of the selected auctioneers had collection depots at Anavilasam.

#### **5.1.3.1 Marketing Ecosystem Services**

The selected auctioneers were not providing any kind of services like input supply, technical advice or credit to the cardamom planters. In order to attract more dealers to the auction, the auctioneers provided free food and water to the dealers.

The auctioneers also arranged for the delivery of cardamom at the destination of the dealers on the same day of purchase itself but the expenses incurred for delivery have to be borne by the trader.

Cardamom being a valuable agricultural commodity, due care is given for its safety at all levels from growers to ultimate consumers.

Auctioneers do not use warehouse as their role is to facilitate trade, but the cardamom brought by the farmers (packed in black polythene lined gunny bags which are properly stitched) at collection depots are stored there till next auction day (less than 7 days). In the collection depot (known as pooling centres), the cardamom brought by farmers are labelled and stacked, and it is kept in moisture- proof area away from direct sunlight.

### **5.1.4. Grading in cardamom**

In the auction centre, cardamom is traded in bulk form, and hence the selected auctioneers don't grade cardamom before auctioning.

The dealers and exporters after taking delivery from the e-auction centre grade the cardamom according to the preference of their customers.

#### **5.1.7. Dissemination of market intelligence**

The auctioneers disseminated market sensitive information like previous day's price, weekly price, monthly price, etc., by word of mouth, display on the notice board and telephone to the planters and dealers.

Though the prices of cardamom futures also influence the auction prices, price tickers of commodity exchanges are not put in the e-Auction hall.

#### **5.1.8. Promotional strategies adopted by auctioneers**

The selected auctioneers were not undertaking any specific promotional methods for attracting planters and dealers. However, through effective customer relationship management they are retaining existing customers and attracting new customers.

#### **5.1.9 Training programmes conducted by auctioneers**

The auctioneers did not organise any type of training programmes either for cardamom planters or dealers.

#### **5.1.10 Payment of selling price to the planters**

The auctioneers have to pay the growers whose cardamom is auctioned, the sale value of the cardamom sold in an auction within 12 days from the date of the auction (T+2).

In cardamom auction, the planter, has the choice of either waiting for settlement period of 12 days for payment or can discount the 'Crop Receipt' generally at 2 - 2.5% for 12 days.

Discounting is done unofficially by auctioneers considering the requirements or needs of the planters.



### **5.1.11 Awareness and Participation in Cardamom Futures**

All the seven selected auctioneers were aware of cardamom futures. All the auctioneers had participated in futures, but they were not active participants in cardamom futures. They opined that cardamom futures' trading is akin to gambling and they don't have trust in futures trading. Cardamom futures had not brought any benefit to the auctioneers and hence they keep away from futures trading.

### **5.1.12 Source of awareness about cardamom future**

Majority (57 per cent) of the auctioneers came to know about cardamom futures through print media and the remaining 43 per cent through internet.

### **5.1.1.13 Changes in the ecosystem due to the advent of futures in cardamom**

Vast majority of the auctioneers were not much satisfied about the impact of cardamom futures on the ecosystem. Four out of the ten statements were marked in the satisfied zone, they are 'transparency in trading', 'efficient price discovery', 'grading facilities have come up' and 'high liquidity in trading'. The greatest impact of cardamom futures according to respondents was 'greater quality consciousness'.

The parameters that obtained negative satisfaction were 'better transportation facilities have come up', 'Increased volume of business' and 'more employment generation'.

## **5.1.2 Structure of Cardamom Market**

### **5.1.2.1 Cardamom auction system**

All the producers of cardamom should sell their produce through a licensed auctioneer/dealer, the auctioneer/dealer then sells the stock to exporters or processors or to others after grading or processing.

In this system, licensed dealers are provided with a user id and password. The dealers have to log into the system to participate in an Auction. A bid is made with key

depressions using a normal computer keyboard. Identity of bidders is protected during the auction process. Highest bidder's name is displayed only on the Auction Masters' terminal. There is a Main Display Board showing lot no, quantity, number of bags, current highest bid, etc. of each lot kept in the Auction. This system would ensure remunerative returns to the planters.

#### **5.1.2.2 . Direct marketing of cardamom:**

In the case of direct marketing of cardamom, the planters used to sell their produce to licensed traders directly. After that it is processed and exported or shipped to various markets and finally reaches the consumer. In this system of marketing, the planters receive immediate payment form dealers.

#### **5.1.3 Conduct of Cardamom Auction**

##### **5.1.3.1. Procedure for collecting the sample**

The auctioneer draws 1500 gms out of each lot of cardamom offered for pooling and the quantity of the sample drawn shall be recorded in the crop slip issued to the person whose cardamom is pooled. Out of the sample drawn, 100 gms shall be set aside as purchaser sample and 50 grams shall be put on display at the auction centre.

The remaining 1350 gms shall be used by the auctioneer for distributing as samples during the bidding process of the said lot.

The auctioneer shall refund the value of 1350gms of cardamom to the growers from the sample drawn. Thereafter, the total amount payable by the auctioneer to the person who pooled the cardamom shall be the sum of the sample refund value and the value for which the lot has been sold in an auction after deducting the eligible one per cent commission on the total amount. No additional charges shall be deducted in the name of wastage, weight loss and charity.

When the farmers bring their produce to the collection depots near to them and they will register their cardamom through the collection depot of auctioneers. After that, auctioneers issue cardamom registration receipt for a particular auction to the individual planters and take sample from the lots.

#### **5.1.3.2. Payment of Auction Price to the Planters**

The auctioneer should recover payment due from bidders within 10 days from the date of the auction and clear the dues to the growers within twelve days from the date of auction.

#### **5.1.3.3. Management of risk**

If the bid price of a lot is below the reserve price, it is a control price put forward by the planter and the auctioneer will use it as a starting figure in order to start auctioning and as they are in the cardamom auctioning since long time, they are able to fix a price randomly seeing the quality of the lot and its market value), the lot will be withdrawn from auction and the same will be put up for auction on the next auction day. Even then, if that lot remains unsold, the lot will be returned to the planters concerned or will be put for auction on the next day by the same auctioneer or some other auctioneer, at the discretion of the planter. The planter/ farmer and the traders have the full right to choose the auctioneer and to trade with more than one auctioneer.

The entire quantity of cardamom will not be carried to the e-Auction centre only the samples (1500 gms) will be brought and if a trader purchases a lot, the auctioneer will deliver the lot to the trader within 24 hours.

It is not allowed to bid below reserve price and normally such a situation will not arise. But if the farmer wants to bring the produce to auction again, he is completely free to choose any auctioneer but he has to register his cardamom through collection depots of the newly selected auctioneer and the auctioneer will draw 1500 gms out of each lot and all the procedures have to be complied again.

The produce bought by a farmer is considered as a single lot and there are no quantity specifications or rules regarding the minimum or maximum quantity that can be

put up for auction. Normally the farmers will bring quantity in between 20 kg and 500 kg. They won't bring quantity more than 500 kg, in order to avoid risk of loss that may happen, if the farmer don't get better price for a lot.

#### **5.1.4. Performance of Cardamom e-Auction System in India**

##### **5.1.4.1. Turnover of the Auctioneers**

The annual total turnover (Qty) in the e-Auction centre during the Financial Year 2016-17 was 22186 tonnes. MAS Enterprise Ltd. had a turnover of 2981.18 tonnes and a market share of 13.47 per cent in the Financial Year 2016-17 followed closely by South Indian Green Cardamom Company Ltd., with a turnover of 2871 tonnes and a market share of 12.94 per cent and Header System (India) Pvt Ltd., with a turnover of 2784 tonnes and market share of 12.54 per cent.

Greenhouse Cardamom Mktg. India Pvt. Ltd with a turnover of 581 tonnes and a market share of 2.61 per cent and Cardamom Planters Association-Santhanparai with a turnover of 525 tonnes and a market share of 2.36 per cent was last in the position.

##### **5.1.4.2. Comparison of the performance of seven auctioneers**

MAS Enterprises Ltd. led the pack in terms of the number of lots auctioned and the quantity sold. In the financial year 2016-17 they sold 2981 tonnes of cardamom by auctioning 16034 lots.

The second best performance was by South Indian Green Cardamom Company Ltd. with a sales of 2871 tonnes from 14777 lots auctioned. Header System (India) Pvt. Ltd. and Cardamom Planters' & Marketing Co-op. Society Ltd. were third and fourth in terms of quantity sold and number of lots auctioned.

Cardamom Planters Association-Santhanparai conducted the lowest number of auction (25). The number of lots put for auction by them was 3958 and the number of lots auctioned was 3467. And there sales turnover was Rs. 525.

In terms of average price, the best performance was by Vandenmedu Green Gold Cardamom Producer Co. Ltd. (Rs.1033 per kg.) followed by South Indian Green Cardamom Company Ltd. (Rs.1021 per kg.).

### **5.5. Comparison on the perception of auctioneers towards the e-Auction and open auction of cardamom**

The effectiveness of the e-Auction and open auction was measured in terms of the satisfaction of the auctioneers. The satisfaction was measured in terms of 26 statements in case on a five point scale.

#### **e-Auction System**

The auctioneers were 'highly satisfied' with 12 out of 26 variables considered. They expressed high level of satisfaction with regard to variables such as 'correct weights and measures'(S3), 'auction is completed in less time'(S6), 'auction day is convenient'(S7), 'good infrastructure for conducting auction'(S8), 'better prices to the planters'(S10), 'transparent trading'(S11), 'display of main board which shows auction proceedings'(S12), 'reduced the price risk for planters and traders'(S13), 'higher price for graded cardamom'(S15), 'time taken for auctioning each lot is enough(S17)', 'reduced marketing cost of traders'(S21) and 'Spices Board helps in providing technical know-how about cardamom trading'(S23). And cent per cent of them expressed their desire to continue with this method of trading (S25).

However, the auctioneers were only 'satisfied' with 'more arrival of cardamom'(S1), 'method of drawing sample is simple'(S2), 'Greater participation of planters ensured'(S4), 'Auction is conducted systematically'(S5), 'efficient price discovery mechanism'(S9), 'more sales turnover per auction'(S16), 'high price volatility in the morning session of the trade'(S18), 'reduced the marketing cost for farmers'(S20), 'easy access to the auction centre' (S22), 'following this marketing channel my commission has gone up'(S24), 'I would like to extend my area of operation'(S26).

The auctioneers were 'dissatisfied' with the variables such as 'higher administrative cost' (S19) and 'transaction cost for conducting auctions' (S14).

### **Manual Auction System**

In the case of manual auction system, the auctioneers expressed 'high satisfaction' with 'correct weights and measures', 'easy access to the auction centre' and 'support of Spices Board in providing technical know-how about cardamom trading'.

However, the auctioneers were 'satisfied' with such as, 'variables arrival of cardamom is more', 'method of drawing sample is simple', 'greater participation of planters ensured', ' auction is completed in less time', 'auction day is convenient', 'good infrastructure for conducting auction', 'It ensures higher price for graded cardamom', 'It generates more sales turnover per auction', 'Time taken for auctioning each lot is enough', 'Price volatility is high in the morning session of the trade (auction)', 'It reduces the marketing cost of farmers', 'I would like to extend my area of operation'.

Auctioneers expressed 'dissatisfaction' with 'auction is conducted systematically', 'efficient price discovery mechanism', 'better prices to the planters', and ' I would like to continue with this method of trading', etc.

#### **5.6. Efficiency of the price discovery mechanism**

The auction was supposed to bring in greater transparency, healthy competition and better price discovery. In order to measure the efficiency in the price discovery mechanism through cardamom e-Auction, comparison of price in e-Auction and cardamom futures in terms of average price and price volatility, concentration ratio analysis, average participation of traders in e-Auction for a week and Share of number of lots auctioned against number of lots put for auction.

The concentration ratio is 6.9, it means that competition exist in between the auctioneers, 69 per cent of the total quantity is sold by 6 auctioneers and the rest 31 per cent is sold by the other 6 auctioneers. As competition exists and no auctioneers have a monopoly over the cardamom auctioning, better price discovery is possible

The average price of MCX spot market (Rs.1125.72) was higher than the average price at auction centre (Rs. 990.965), the average price difference between them was Rs.

134.75. It may also be observed that the futures price was higher than the e-Auction price in all the months.

From 3<sup>rd</sup> October 2017 to 17<sup>th</sup> October 2017 (7 days), 81 per cent of the dealers participated in the e-Auction. This shows that a good number of dealers participates in the auction and this will help the farmers to fetch greater price.

The annual standard deviation is calculated to measure the price volatility. e-Auction price had the higher annual standard deviation (3 per cent) when compared to annual standard deviation of MCX spot price (1 per cent) for the financial year 2016-17. Higher annual standard deviation means price volatility is higher. Therefore, e-auction price is more volatile than MCX spot price.

As the price volatility of e-auction centre is higher than MCX, it is more efficient in price discovery than futures market.

Out of 122262 tonnes of cardamom put for auction 115955 tonnes were auctioned (95 per cent). During September, October and March, 97 per cent of the cardamom brought for auction were auctioned. This shows the adeptness of e-Auction system and its efficiency in price discover.

## 5.2 SUGGESTIONS

- For increasing the contribution/participation of small planter's in e-Auction, auctioneers should extend their area of operation and collection depots in all revenue villages of Idukki district. And the collection centres should provide marketing information regarding prices of cardamom to the farmers.
- Introduction and trading of export standard grades of cardamom in e-Auctions instead of bulk form; it will fetch fair prices to the planters and will be easier for the dealers to do bidding within limited time.
- For getting better price to the planters, and increasing more sales turnover per hour and to reduce the administrative cost of the auctioneers, board has to reduce the bidding time from 9 sec. to 6 sec.
- To create cabinet type terminal with single trader. It can enhance the competition between the traders.
- At present trade is conducting within the hall. It should be widen to all parts of the world by promoting online trading through video conferencing for visual observation of cardamom and introduction of strong grading system of cardamom. By increasing trust of buyers in other places, Spices Board has to provide quality certification like GMP, GAP to graded cardamom.
- To develop effective system for spot payment to the planters by association with the banks or for encouraging spot payment or payment within one week by the traders, Spices Board announce to those who are not made proper payment to the auctioneers within one week, they will get chance of paying extra sales tax with transportation cost than the normal level.



### 5.3 CONCLUSION

Cardamom (small), often qualified as the “Queen of spices”, enjoys a unique position in international spices market as one of the most sought after spices. From time immemorial, India is known as the home of cardamom. The market of cardamom experience problems due to continuous increase in production through higher productivity, during 2011-12 the productivity was 275 kg/ha and it increased to 434 kg/ha in the year 2016-17.

Indian cardamom is facing serious threat in the world market from Guatemala, which now become top producer and exporter of cardamom in the world and India has been relegated to second position. Traditionally, marketing of cardamom has been done by manual auctioning system. In manual auction, the dealers (buyers) sometimes colluded (formed cartels) to depress the prices in the market. This phenomenon quite often vitiated the transparency of the system and adversely affected the efficiency of the price discovery mechanism.

In order to overcome these defects, Spices Board has developed a completely computerized system of auction called as “e-Auction”. e-Auction ensures greater transparency in trading by disclosing of seller and buyer identity and price discover mechanism also very effective. It gives fair price, ensures regular market better weights and measures, ensures better price for graded cardamom to the farming community.

Analysis of the structure, conduct and performance of e-Auction system disclosed that the e-Auction ensures greater transparency, healthy competition and better price discovery in trading. And planters, auctioneers as well as dealers were contented with the functioning of e-Auctioning system, but still more improvements could be made in cardamom marketing especially in the field of grading, quality checking and dissemination of marketing intelligence, expansion of facilities in e-Auction centre, like ware housing facilities, cabinet terminals, etc. and extension of transportation facilities to cardamom growing areas and facilitation of the spot payment system to the farmers.

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***APPENDIX***

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**KERALA AGRICULTURAL UNIVERSITY**

College of Co-operation, Banking and Management

Vellanikkara, Thrissur

**MBA AGRI BUSINESS MANAGEMENT**

**Economic Benefits of Cardamom Futures**

**Interview Schedule for Cardamom Auctioneers**

(Information collected through the survey is meant only for study purpose)

- 1) Name of the auctioneer:
- 2) Address:
- 3) Date of registration:
- 4) Date of commencement of business (trading):
- 5) Status of organization: Proprietary  Partnership  Co-operative   
Pvt. Ltd Co.  Public. Ltd. Co.  Any other (specify)
- 6) Governance:
  - a) Board of Directors:
  - b) General Body:
- 7) Organizational structure of the firm:  
Number of Managers (hierarchy):  
Number of employees:  
Number of workers:
- 8) Number of farmers registered with the firm:
- 9) Number of traders registered with the firm:
- 10) Experience in auctioning;
  - a) How long you are in cardamom auctioning?
  - b) What are the duties and responsibilities of an auctioneer?
  - c) Activities of the firm other than auctioning?



d) Eligibility for membership:

- a) Farmers:
- b) Traders:

e) Membership:

Membership		
Years	Number of members in the firm	
	Farmers	Traders
2016-17		
2015-16		
2014-15		
2013-14		
2012-13		

f) Do you deal in any other commodity?

Yes  No

If 'yes' give details;

11) Details of auctions conducted (volume and value traded for 5 years)

Years	Details of auction	
	Volume traded (Kg.)	Value traded (Rs.)
2016-17		
2015-16		
2014-15		
2013-14		
2012-13		

12) Detailed data of auction conducted in 2016-17

Performance indicators	Open auction( as on 31 <sup>st</sup> March 2017)
<b>Capital structure:</b> a. Authorised Share Capital (Rs.) b. Paid Up Share Capital(Rs.) c. Working Capital	
<b>Liabilities:</b> a. Loans from financial institution (banks) b. Amount outstanding to farmers (creditors)	
Any subsidy / grant received	
Overdraft Other liabilities	
<b>Assets:</b> a. Physical b. Cash in Hand c. Cash at Bank d. Amount Due from Traders (Debtors)	

15) Any grading of cardamom done by the auctioneer before starting the auction?

Yes  No

16) Which are your auction days?

17) How is the base price for auction determined?

18) What is the difference in price between different grades of cardamom?

19) Working hours:

a) Time when auction begins

b) Time when auction ends:

20) Total commission received by you in 2016-17?

21) Number of Farmers / Traders participating in your auction?

22) What is the usual method for discovering the price?

Market price  Negotiated price  Competitive bidding  Any other (specify)   
(Specify) .....

23) Whether the auctioneers have any prior knowledge about the buyers before selling the produce?

Yes  No

If 'yes' what all details known .....

24) How do you prepare the lots for auction?

25) How is the order (turn) of auction determined?

26) How do you determine the base price for each lot?

27) How many seconds are given for quoting the price? Is it sufficient?

28) What is the tick price?

29) When will the farmer receive the price of the cardamom?

Before the sale of the produce  Immediately after the sale

One week after the sale  Two weeks after the sales  Any other (Specify)

30) Is there any provision to receive the payment earlier than the due date?

Yes  No

If yes, what are the terms?

31) Do you have your own warehouse?

Yes  No

If 'yes', where is it?

32) Do you allow farmers to store their produce in your warehouse?

Yes  No

If 'yes', how much is the rent?

33) When will you deliver the cardamom to the traders?

34) How much is the commission charged from farmers? How much is the commission charged for traders?

35) What are the services given by you to the traders after the sales?

36) Auction fee collected Spices Board?

37) Auction commission collected from

a) Farmers:

b) Traders:

38) Number of collection centres operated by you?

39) Places where your collection centres function?

40) Procedures followed at collection centres?

### Futures Trading

41) Are you aware of cardamom futures trading?

Yes  No

42) If yes, how did you come to know about futures trading in cardamom?

a) Publicity

i. Print media

ii. Television

iii. Radio

iv. Others (specify): .....

b) Friends and relatives

c) Internet

d) Commodity Brokers

e) Officials of Commodity Exchange (MCX , NMCE,NCDEX)

f) Neighbours

g) Coworkers /Colleagues

h) Others (specify): .....

43) Did you face any difficulties in?

a) Giving delivery

b) Taking delivery

44) Do you participate (trade) in futures trading?

Yes  No

If yes, what are the benefits of futures trading?

45) How many trades you have done in 2016-17?

a) Buy:

b) Sell :

46) How many trades resulted in delivery?

a) Given delivery:

b) Taken delivery:

47) Whether there is any improvement in the following after the advent of futures trading?

Sl.No.	Particulars	Yes	No
1	Availability of better quality of cardamom		
2	Availability of marketing finance		
3	Better transportation facilities have come up		
4	Employment generation		
5	Efficient price discovery for traders / processors		
6	Grading facilities have come up		
7	Greater quality consciousness in the value chain		
8	High liquidity in trading		
9	Increased volume of business		
10	Reduction in transaction cost in auction		
11	Timely payment of selling price		

12	Transparency in trading		
13	More warehousing facilities have come up		

48) Relationship with auction price and future price?

49) Is the future price of cardamom taken as a reference price for selling by farmers?

50) Satisfaction towards auction system and open auction system;

(Please 'x' our opinion [ SA-Strongly agree; A- Agree; NO- No opinion; DA- Disagree;  
SDA- Strongly Disagree]

Sl.No.	Parameter	e-auction				Open auction					
		SA	A	NO	DA	SA	SA	A	NO	DA	SDA
1	Arrival of cardamom is more										
2	Method of drawing sample is simple										
3	Correct weights and measures										
4	Greater participation of planters ensured										
6	Auction is conducted systematically										
7	Auction is completed in less time										
8	Auction day is convenient										
9	Good infrastructure for conducting auction										
10	Price discovery mechanism is efficient										
11	It gives better prices to the planters										




27	I would like to continue with e-auction method of trading										
28	I would like to extend my area of operation										

51) Any problems you faced regarding e-auctioning? Suggestions to make e-auction more efficient?



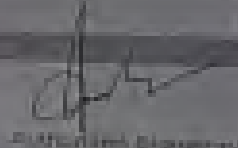
# Sample Crop Receipt

 The Spice Commission (Incorporated and Managed by Company Limited) **CROP RECEIPT**

<b>Cardanum No.</b> _____	<b>Cardanum Name</b> _____	<b>Lot No.</b> _____	<b>Quantity</b> _____
------------------------------	-------------------------------	-------------------------	--------------------------

*Handwritten:* Serial 233. Two Three Three  
Date: 7/10/13  
09  
293-714

Received **WHD** (Warrant Holder) from Jas. erl. panasis  
P. P. L. L. L. (CARTIN) 7792/11/14:  
275.700 kgs of cardanum which is registered for sale through our Auction on 09/10/13  
subject to the terms and conditions of the Cardanum Auctioneer's Licence of Spices Board.

  
Auctioneer's Signature

Spice House, Trehkady Kudukh Dist, Tel 04869 222097, 222895      **N No. 32060466865 | CST No. 32060466865C | SBL No. 35**

FORM-A

(Application for issue/renewal of licence as auctioneer)

(1) Name of the Person/Firm (in block letters)

(2) Address of principal / registered office

(3) Status (Please tick where appropriate)

Proprietorship .....

Private Limited Company .....

Hindu Joint Family Public Limited Company .....

Partnership Public Sector (Central Government) .....

Co-operative Society Public Sector (State Government) .....

(4) Full name and permanent address of the proprietor/partners/directors

Name

Building No.

Building Name

City

PIN

State

Tel.

Mobile

Fax

E-mail

(5) Permanent Account Number (PAN)

a) Sales Tax Registration

(Attach self-attested copy)

b) Indicate whether the application is for renewal of the existing licence or for a new licence

Renewal .....

New .....

c) If for renewal, indicate

Licence Number

Date of Issue

Place of auction .....

Day of auction .....

Time of auction .....

d) Quantity and value of cardamom auctioned during the preceding year

Year	Quantity (MT)	Value (in Lakhs)

e) Indicate Category (Please tick where appropriate)

A ----- B----- C-----

(A - average turn over above Rs.10 crore B- average turn over Rs. 1- 10 crore, C- average turnover less than Rs.1 crore)

f) Details of fee remitted

Amount: -----

g) Mode of payment Cash Demand Draft

h) Demand Draft No. -----

Date -----

i) Name of the Bank

(6) If for new auctioneer licence, indicate :

a) Place of auction

b) Day of auction

c) Time of auction

d) Frequency

e) Infrastructure available at the proposed place of auction (Please tick where appropriate)

Godown Yes ----- No -----

If so, location, address and capacity of the godown

Auction hall

Area of auction hall

Grading facility

Weighing machine

Lot sample display board

Tables/Chairs

Auction details display board

Computer facilities

Total floor area for storage

Transportation facility

Parking facility for vehicles

Road facility for movement of vehicles to the godown

Floor surface – cement, tiles, etc.

Packing facility

Pallets facility

Sieving facility

Lighting facility

f) Working capital available Rs.

g) Capital structure

Authorised capital Rs. \_\_\_\_\_

Paid up capital Rs. \_\_\_\_\_

### DECLARATION

I/We \_\_\_\_\_, declare that the information given above are true to the best of my/our knowledge and belief and that I/We shall abide by the Cardamom (Licensing and Marketing) Rules, 1987, and any instructions given by the Board from time to time regarding the conduct of business.

Place:

Signature:

Date:

Name:

Designation:

Note: Application not accompanied with prescribed shall not be entertained.

Form C

Spices Board licence number:

Season:

Maximum Price : Rs.

Auction No.:

Minimum Price : Rs.

Date of auction :

Average Price : Rs.

Sl. No.	Name & full address of the planter /dealer	Estate Registration Number/ Board licence no.	Qty. put for auction (kg)	Qty.sold (kgs)	Rate (Rs./kg)	Value (Rs.)	Commission (Rs.)	Name & full address of bidder	Spices Board Licence no.	Remarks
1	2	3	4	5	6	7	8	9	10	11

I/We confirm that no discount or commission other than the one per cent commission permitted to me/us by the rules has been accepted by me/us or received from the owners of cardamom sold in the auction and nor have I/We passed on any cardamom nor commission to the purchasers.

Signature of the auctioneer

Place:

Date :

