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Marketing of BT Cotton in Different Marketing Channels in Manchirial District, Telangana

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

The present study was conducted in Manchirial district of Telangana. Being the leading BT cotton producer in the country, cotton production in Telangana has many problems and constraints. The major problems faced by the cotton farmers were changing weather conditions, price fluctuations. There's also been a labour scarcity, transportation and lack of preservation techniques which make the farmer to sell cotton at low cost. From Out of total blocks of Manchirial district one block has been selected purposely on the basis having high total area, production of BT Cotton for current study. Farmers growing BT Cotton is collected from Village Agriculture Assistant (VAA) and selected among them randomly. Highest quantity of produce was sold through channel I and comparably lowest quantity of produce was sold through channel III and channel II. Producer share in consumer price was highest in channel III i.e., 84.97% compared to channel I i.e., 84.64% and lowest in channel II i.e., 83.85%. Price spread was highest in channel I i.e., RS 1168/qtl compared to channel II i.e., RS 1037/qtl and channel III i.e., 1010. Marketing efficiency was highest in channel III i.e., 6.65% compared to channel II i.e., 6.19%% and channel III i.e., 6.51%.

Keywords: Marketing channels; marketing cost; market efficiency; price spread; producer share in consumer rupee.

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1. INTRODUCTION

Cotton is a basic need of cloth, human being which is required right from his birth to death it is the gift of nature providing fibre for clothing since time immemorial. It is one of the most important commercial cash crops besides serving as a source of natural fibre and oil and providing raw material to the textile and oil industry. It is outstanding economic ventures. Which contributes a major from of agriculture produce of growers which bringing then cash returns? It plays a vital role in Indian economy is concerned. It is one of the most important sources of foreign exchange, so it referred as White gold" [1,2].

Cotton provides livelihood to over 60 million people through its cultivation, trade and industry. In India, hybrid cotton era started in 1970 with the release of world's first cotton hybrid, H-4 from Cotton Research Station, Surat of Gujarat Agricultural University. Two years after the release of H-4, the world's first interspecific hybrid between *G. hirsutum* and *G. barbadense* was released from the Agricultural Research Sciences, Dharwad under the name "Varalaxmi". Bt Cotton is genetically engineered with Bt (*Bacillus thuringiensis*), a bio-toxin which comes from soil bacterium. Bt was isolated from soil in 1911, has been available to farmers as an organic pesticide since 1930. The engineered Bt gene produces a protein (cry proteins-a group of delta endotoxins) that cuts into the guts of specific insects, rendering the cotton resistant to insect pests. The resulting plants have the in-built ability to produce Bt protein within their body and defend themselves from bollworms [3,4]. Bt cotton was first approved for field trials in United States in 1993 and approved for commercial use in 1995. After the introduction of Bt cotton there was a significant decrease in the cost of pesticides application [5-7].

Telangana was discovered to be the country's top supplier of cotton and second greatest supplier of paddy. On Tuesday, Union Agriculture Minister Narendra Singh Tomar informed the Lok Sabha that Telangana provided about 178.55 lakh quintals of cotton and 94.48 lakh tonnes of paddy during the Kharif (Vaanakalam) Marketing Season 2020-21. As a result, the state's cotton purchase is nearly double that of Maharashtra, which came in second with 91.98 lakh quintals. In addition to the harvest acquired by individual businesses, the cotton crop was sold to Cotton Corporation of India.

The major cotton producing states in our country are Gujarat, Maharashtra, Telangana, Andhra Pradesh, Punjab and Tamil Nadu. Gujarat with 125 lakh bales is highest cotton producing state followed by Maharashtra with 85 lakh bales. Telangana occupies 3rd position among cotton producing states in India with a production of 43.32 lakh bales from an area of 19.03 lakh hectares (Socio economic outlook, 2018). Similarly, to identify different existing marketing channels, price spread and their marketing efficiency in the study area.

During the present procurement, the state also purchased 6,743.84 tonnes of pulses. All of the crops were acquired from farmers at the Minimum Support Price as part of the Centre's Price Support Scheme, which intended to eliminate intermediaries and help farmers. The procurement agency makes all payments to farmers for their produce straight into their bank accounts.

1.1 Period of Enquiry

The study covers Marketing cost, Market efficiency, Price spread, Producer share in consumer Rupees in Bt cotton marketing in different Marketing channels in agriculture year 2021-2022.

2. RESEARCH METHODOLOGY

Manchirial district of Telangana is one of the most important BT Cotton growing district and it will be purposively selected for the study. A list of all market functionaries of both primary and secondary market has been prepared with the help of market head out of total market functionaries 10% market functionaries selected randomly from both market for present study this market functionaries was considered for data collection regarding different marketing costs and other charges in different marketing channels. The selected respondents for the present study all together total, Merchant Middleman, Agent Middleman, Cotton Millers. were selected randomly for the study. Data is obtained from CCI market yard, local farm, Agriculture market, traders, journals, published websites and research papers etc.

2.1 Marketing tools

Marketing cost: The total cost, incurred on marketing either in cash or in kind by the

producer seller and by the various intermediaries involved in the sale and purchase of the commodity reaches the ultimate consumer.

$$C = CF + CM1 + CM2 + CM3 + \ldots + CMN.$$

Where, C = Total cost of marketing of commodity
CF = Cost paid by the producer from the time of produce leave farm till he sale it
CMI = Cost incurred by the ith middleman in the process of buying and selling the product.

Marketable surplus:

$$MS = P - C$$

Where
MS = Marketable surplus
P =Total production
C = Total requirements (family consumption, farm needs, payment to labour, artisans, landlord and payment for social and religious work)

Producer share in consumer rupee: It is the price received by the farmer expressed as a percentage of the retail price (i.e., price paid by the consumer).

$$PS = (PF \div PR) \times 100$$

Where,
PF= Price received by the farmer
PR =Retail price (consumer price)

Price Spread (PS):

It is the difference between the two prices, i.e., the price paid by the consumer and the price received by the producer.

$$PS = P1 - P2$$

Where,
P1=Price at one level or stage in the market.
P2 =Price at another level.

Marketing Margin of Middlemen:

(a) Absolute margin = PRi (PPi + Cmi)
(b) Percentage margin of ith middlemen = (PRi - (PPi + Cmi) / PRi) X 100

Where,
PRi = Total value of receipts per unit (sale price)
Ppi = Purchase value of goods per unit (purchase price)
Cmi = Cost incurred on marketing per unit.

The margin includes profit to the middlemen and returns to storage, interest on capital, overheads and establishment expenditure.

Marketing Efficiency: It will be calculated using Acharya's Modified Marketing efficiency formula as follows:

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

Where,
MME is modified measure of marketing efficiency
FP = Price received by farmers
MC = Marketing cost
MM = Marketing margin

3. RESULT AND DISCUSSION

The existing Marketing channels for BT Cotton growers in study area and to suggest the best suitable channels for that particular region.

3.1 Marketing Channels

In the study area mainly Three marketing channels were identified which are as follows:

Channel-I: Producer –Village Merchant- Miller –Consumer.
Channel-II: Producer –CCI -Miller -Consumer.
Channel-III: Producer- Miller -Consumer

3.2 Marketing Practices and Channels

The marketing practices of BT Cotton were found distinctly different from each other. The crop-wise detailed marketing practices are discussed below Auctioning of farmer Produce by open type and the payment to the seller was made immediate on the same day in market yards. The commission agents provided space and charged 10 per cent commission. Below are three major channels through which the trade was depicted.

3.3 Marketing Channel – I

Table Revealed the information on marketing of BT Cotton through marketing Channel-I: Producer –Village Merchant- Miller –Consumer This was the most common practiced channel through which 50 per cent of produce in the district where marketed. Here, the producer share in consumer rupee of BT Cotton was 84.64 per cent. In this marketing channel, the total marketing cost of BT Cotton was Rs. 845 per quintal. The total margin

of this channel of BT Cotton was Rs. 770 per quintal. Thus, out of these Three channels understudy, the Price spread in this was found to be high in channel –I i.e., large number of market functionaries involved in the process of marketing of BT Cotton.

3.4 Marketing Channel - II

3.4.1 Producer- CCI-Miller –Consumer

Table Revealed that information on marketing of BT Cotton through marketing Channel-II: Producer- CCI-Miller-Consumer. It was the channel through which the farmer got 83.85 percent share of consumer price of BT Cotton. Total Marketing cost was Rs. 827 per quintal. The total marketing margin of this channel of BT Cotton was Rs. 608 per quintal. The total price spread through channel was 11.67 percent to the consumer price.

3.5 Marketing Channel - III

3.5.1 Producer–Miller–Consumer

Table 4.3.3 Revealed that information on marketing of BT Cotton through marketing Channel-III: Producer –Miller–Consumer. It was best channel through which the farmer got 84.97 percent Producer share in consumer Rupee of BT Cotton. marketing cost borne by the Miller accounted for Rs. 210 per quintal for the produce and the Miller sold the produce to the final consumer with a marginal profit of produce was Rs. 800 per quintal. The total price spread

Table 1. Producer–village merchant- miller –consumer

Sr.no	Particulars	Channel-I	Percentage
A	**Marketing cost incurred by producer**		
	Net rate received by Producer	8903	84.65
I	Loading	40	0.38
II	Transportation	80	0.76
III	Octroi	109	1.04
IV	Weighing charges	12	0.11
V	Commission	180	1.71
VI	Unloading	20	0.19
VII	Miscellaneous Expenditure	6	0.06
1)	Marketing cost of producer	447	4.25
2)	Producer selling price to Village merchant	9350	88.90
B	**Marketing Cost incurred by Village Merchant**		
I	Transportation	35	0.33
II	Weighing charges	20	0.19
III	Hamali	20	0.19
IV	Market Cess	150	1.43
V	Other expenses	23	0.22
3	Marketing cost of Village merchant	248	2.36
4	Village merchant margin or Profit	350	3.33
5	Selling price of Miller	9948	94.58
C	**Marketing Cost incurred by Miller**		
I	Transportation	60	0.57
II	Weighing charges	30	0.29
III	Hamali	20	0.19
V	Other expenses	40	0.38
6	Marketing cost of Miller	150	1.43
7	miller margin or Profit	420	3.99
8	Selling price to consumer	10518	100
12	Total marketing cost	845	8.03
13	Total market margin	770	7.32
14	Consumer price	10518	100
15	Price Spread	1168	11.10
16	Marketing Efficiency	Total	6.51
17	Producer share in consumer Rupee	Total	84.64

Table 2. Producer-CCI-miller –consumer

Sr.no	Particulars	Channel-II	Percentage
A	**Marketing cost incurred by Producer**		
	Net rate received by Producer	7452	83.85
I	Loading	50	0.56
II	Transportation	80	0.90
III	Octroi	83	0.93
IV	Weighing charges	12	0.14
V	Commission	145	1.63
VI	Unloading	22	0.25
VII	Miscellaneous Expenditure	6	0.07
1)	Marketing cost of producer	398	4.48
2)	Producer selling price to CCI	7850	88.33
B	**Marketing Cost incurred by CCI**		
I	Transportation	30	0.34
II	Weighing charges	10	0.11
III	Hamali	14	0.16
IV	Market Cess	98	1.10
V	Other expenses	30	0.34
3	Marketing cost of CCI	182	2.05
4	CCI margin or Profit	308	3.47
5	Selling price of Miller	8340	93.84
C	**Marketing Cost incurred by Miller**		
I	Transportation	35	0.39
II	Weighing charges	12	0.14
III	Hamali	10	0.11
V	Other expenses	190	2.14
6	Marketing cost of Miller	247	2.78
7	Miller margin or Profit	300	3.38
8	Selling price to consumer	8887	100
12	Total marketing cost	827	9.31
13	Total market margin	608	6.84
14	Consumer price	8887	100
15	Price Spread	1037	11.67
16	Marketing Efficiency	Total	6.19
17	Producer share in consumer Rupee	Total	83.85

through channel was 11.66 percent to the consumer price. The total marketing cost incurred by the farmer was Rs.502 per quintal.

Table 3. Producer –miller–consumer

Sr.no	Particulars	Channel-III	Percentage
A	**Marketing cost incurred by Producer**		
	Net rate received by Producer	7360	84.97
I	Loading	44	0.51
II	Transportation	60	0.69
III	Octroi	32	0.37
IV	Weighing charges	12	0.14
V	Commission	120	1.39
VI	Unloading	20	0.23
VII	Miscellaneous Expenditure	4	0.05
1)	Marketing cost of producer	292	3.37
2)	Producer selling price to Miller	7652	88.34

Sr.no	Particulars	Channel-III	Percentage
B	**Marketing Cost incurred by Miller**		
I	Transportation	40	0.46
II	Weighing charges	14	0.16
III	Hamali	24	0.28
IV	Market Cess	120	1.39
V	Other expenses	12	0.14
3	Marketing cost of Miller	210	2.42
4	Miller margin or Profit	800	9.24
5	Selling price to consumer	8662	100
6	Total marketing cost	502	5.80
7	Total market margin	800	9.24
8	Consumer price	8662	100
9	Price Spread	1010	11.66
10	Marketing Efficiency	Total	6.65
11	Producer share in consumer Rupee	Total	84.97

3.6 Compression of marketing Channels: i,ii,iii

Above Three channels reveal that Producer selling price is high in Channel I Compared to Channel II, III but the consumer cost is high because of intermediaries, in Channel III the producer selling price is low but the Consumers are benefitted because of less intermediaries. Hence the middle men are the reason for high Consumer price.

Table 4. Price spread and marketing efficiency in different marketing channels

S.no	Particulars	Channel-i	Channel-ii	Channel-iii
1	Marketing cost	845	827	502
2	market margin	770	608	800
3	Price spread	1168	1037	1010
4	Producer share in consumer Rupee	84.64%	83.85%	84.97%
5	Marketing efficiency	6.51%	6.19%	6.65%

In table the Marketing cost, market margin, Price spread, Producer share in consumer Rupee, Marketing efficiency in different channels were compared. In channel-I Marketing cost (845 Rs), market margin (770 Rs), Price spread (1168 Rs), Producer share in consumer Rupee (84.64%), 6.51% per cent as marketing efficiency. In channel -II Marketing cost (827 Rs), market margin (608 Rs), Price spread (1037 Rs), Producer share in consumer Rupee (83.85%), 6.19 per cent as marketing efficiency. In Channel-III Marketing cost (502 Rs), market margin (800 Rs), Price spread (1010 Rs), Producer share in consumer Rupee (84.97%), 6.65 per cent as marketing efficiency.

4. CONCLUSION

The Study Shows That Marketing Costs, Marketing Margins and Price Spread in Different Marketing Channels of Bt Cotton in Different Marketing Channels in Manchirial District, Telangana. Involvement Of More Middlemen in Channel I and Channel II Increased Price Spread and Decreased Marketing Efficiency. So, With Less Involvement of Middlemen There Can Be More Producers' Share in Consumer Price and Low Marketing Costs.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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