



A Study on Supply Chain Management of Chillies In Guntur District of Andhra Pradesh

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ABSTRACT

The present study entitled "Study On Supply Chain Management of Chillies in Guntur District of Andhra Pradesh", was intended to study the objectives of socio-Economic profile of chilli farmers, marketing channel, marketing cost, marketing margin, marketing Efficiency, price spread and producers share in consumer rupee.

Andhra Pradesh was selected purposively. The study was under taken in mandals of Guntur district viz., Machavaram, Piduguralla, Krampudi, Dachehalli. From each selected mandal 30 farmers were selected with total number of 120 chilli producing farmers. The study was mainly aimed to study the constraints in procurement and moving of chillies, and to identify the factors influencing remunerating prices of chillies to analyze the purchasing behavior of consumers, and to identify the measures to be taken in the supply chain management of chillies.

In the study area, following channel were identified in marketing of chillies

Marketing channel:- Producer - Pre-harvest contractor - Wholesaler - Retailer - Consumers

The marketing cost is calculated i.e., includes the transportation, loading and unloading charges, weighing charges, labor charges and other miscellaneous charges and also the marketing costs can be determined and by transferring through different channels and involving the different middle parties the marketing margins, price spread and producer's share in consumer rupee was calculated.

Market intermediaries were higher in channel results higher price spread, marketing efficiency and producer's share in consumer rupee.

Key words: *Marketing margin, marketing cost, marketing efficiency, price spread, producers share in consumer rupee*

INTRODUCTION

Chillies are pungent fruits of *capsicum annum L* and *capsicum frutescence*. It is also known as red pepper or dry chillies. An alkaloid capsaicin is extracted from chilli, which has medicinal value, besides its richness in vitamin C. Average per capita consumption in India ranges from 50 – 60gms per day. The area under chilli in the country are in the last 40 years ranged from 7.83 lakh. Ha in 1971-71 to 8.29 lakh ha. In 2003. There after there is a fall in the area till 2006-07 and in 2008-09 the area rose to 8.06 lakh ha.. In 2009-10 the area under the crop was 7.67 lakh. Ha. The production had substantially increased from a minimum of 5.20 lakh tonnes in 1970-71 to a maximum of 12.03 lakh tonnes 2009-10,

which was more than double and it was piloted by the yield increase. It is also evident as yield too increased from 664 kg/ha. In 1971 to 1600 kg/ha. In 2010. The steady increase in productivity was on account high yielding hybrids. India is called as the “Spice Bowl of the World” as it cultivates 63 spices out of total 107 spices identified. India’s Agro climatic conditions provide scope for cultivation of 63 different spices, making India “Land of spices”. India is the largest producer, consumer and exporter of spices in the world. India’s share in world trade of spices is around 48%. The area under spices is around 57 lakh hectares. Among the spices chilli is one of the most important and ancient spice of India and also a traditional item of export. Guntur chillies (Telugu: Guntūr mirapakāyalu) are a group of chilli cultivars from the Guntur and Prakasam districts of Andhra Pradesh, India. They are renowned globally and exported to Asia, Canada, and Europe. The Guntur district is the main producer and exporter of most varieties of chillies and chilli powder from India to regions such as Sri Lanka, Bangladesh, Middle East, South Korea, the UK, the US, and Latin America. Chillies have various colours and flavours because of the level of capsaicin in them. Guntur chillies form an important part of curries and various popular dishes of the state of Andhra Pradesh in India. The main trading place for the Guntur chilli is called Guntur Mirchi Yard, which is Asia's largest dried red chilli market. Market prices for the chillies are accessible on the National Agriculture Market or e-NAM. The beginning of the high season of chilli between February and May, when the lanes of Asia’s largest market yard in Guntur are crammed with trucks and autos bringing thousands of sun-dried chillies from all over Andhra Pradesh. In the low season between August to December, the premium varieties stacked in cold storages command a high price, and those who wait for longer periods are rewarded. All the premium varieties, including ‘Teja’, ‘334’ and ‘Badiga’ are commanding an average price in excess of ₹170 per kg. Thursday witnessed history as Teja variety commanded a price of ₹200 per kg.

MATERIALS AND METHODS

Stages

- First stage – selection of state
- Second stage – selection of district
- Third stage – selection of block
- Fourth stage – selection of village
- Fifth stage – selection of respondents

Selection of State

Andhra Pradesh state was selected purposively for the study, since the researcher hails from the same state. The results was useful to the farmers and development professionals of Andhra Pradesh.

Selection of District

Guntur district of Andhra Pradesh was Purposively selected for the study as it stood first in area and production under Chilli in Andhra Pradesh and also important trading centre of Chilli in India. To understand the consumer behavior, the study was conducted in different markets of Guntur.

Selection of Block

There are 57 blocks in Guntur district. The study was conducted under different markets of Guntur district. From this 5% of blocks was selected purposively. i.e Machavaram, Piduguralla, Dacheppalli, Karampudi.

Selection of Villages

Out of the selected blocks, 5% of the villages was selected purposively having highest area of Chilli from Guntur district for collection of data.

Selection of Respondents

The respondents for the study consisted of consumers belonging to different income groups having different occupations, 10% of farmers were selected randomly from each village.

ANALYTICAL TOOLS

The stated objectives of this study were fulfilled through tabulation and analysis of the data will pertain to study. To work out the supply chain management of chilli various costs associated with it will be aggregate.

Marketing cost:

The movement of products from the producers to the ultimate consumers involves costs, taxes, and expenses which is called Marketing costs. These costs vary with the channels through which a particular commodity passes through. Ex:- Cost of packing, transport, weighment, loading, unloading, losses and spoilages.

Total cost of marketing of commodity,

$$MC = C_p + \sum_{i=1}^n C_{mi}$$

Where,

MC=Marketing Cost

C_p = Cost incurred by producer for marketing

C_{mi} = Cost incurred by i^{th} middlemen for marketing

Marketing Margin:

Marketing is calculated by subtracting the net farm value equivalent of food sold at farm product from the retail price.

$$\text{Marketing Margin} = \text{Product Price} - \text{Marketing Cost}$$

Marketing Efficiency:

As per this method efficiency is calculated with

$$ME = \text{Consumer Price} / MC + MM$$

Where,

ME = Marketing Efficiency

MC = Marketing Cost

MM = Marketing Margin

Price Spread:

Producers share in consumer rupee

$$Ps = PF / PR \times 100$$

Where,

Ps = Producers Share

PF = Price Received By Farmer

PR = Retail Price Paid By Farmer

Producers Share in Consumer Rupee:

The producer receives what the consumer pay after the various cost of marketing has been deducted. This residual expressed as percentage of the price paid by the consumer (retail price) is the producers share. It is calculated by:

$$Fs = (Fp/Cp) \times 100$$

Where,

Fs = Producers share in consumer rupee(percentage)

Fp = Producer net selling price

Cp = Consumer price

RESULTS AND DISCUSSION

To analysis marketing margin, marketing cost, market efficiency, price spread, consumers share in producers rupee of chilli.

Table 1: Marketing costs incurred by producers in the study area:

(Rs/q)			
S.NO	Particulars	Rupees	Percentage
1	Harvesting	87.77	14.43
2	Grading	11.47	1.93
3	Bagging	61.5	10.33
4	Loading and unloading	43.3	7.27
5	Transportation	41.84	7.03
6	Market fee	327.76	55.04
7	Miscellaneous expenses	21.82	3.66
	Total	595.46	100.00

Table 2: Marketing cost incurred by pre harvest contractor:

(Rs/q)			
S.NO	Particulars	Rupees	Percentage
1	Harvesting	37.43	8.50
2	Grading	8.57	1.95
3	Bagging	24.6	5.59
4	Loading and Unloading	17.46	3.96
5	Transportation	18.27	4.15
6	Commission/market fee	327.73	74.41
7	Miscellaneous expenses	6.36	1.44
	Total	440.42	100.00

Table 3: Marketing cost incurred by wholesaler:

(Rs/q)			
S.NO	Particulars	Rupees	Percentage
1	Loading and Unloading	34.64	15.04
2	Transportation	26.54	11.52
3	Commission/market fee	141.32	61.36
4	Miscellaneous expenses	27.83	12.08
	Total	230.33	100.00

Table 4: Marketing cost incurred by retailer:

(Rs/q)			
S.NO	Particulars	Rupees	Percentage
1	Loading and Unloading	48.28	22.36
2	Transportation	38.14	17.67
3	Market fee	40	18.53
4	Miscellaneous expenses	89.49	41.44
	Total	215.91	100.00

Table 5: Market margin of market intermediaries involved in market of chilli:

S.NO	Particulars	Rupees	Percentage
1	Pre harvest contractor	296.78	4.63
2	Wholesaler	366.39	5.29
3	Retailer	501.1	7.82

$$\text{Price Spread} = \text{Price paid by consumer} - \text{Price received by producer}$$

$$= 6845.34 - 4200$$

$$\text{Price spread in Marketing of chilli} = 2645.34$$

Table 6: Marketing cost, Marketing margin and Price spread in Marketing of chilli:

S.no	Particulars	Rs/q	Percentage (%)
1	Net price received by Chili grower	4200	61.35
2	Marketing cost incurred by Chili grower	595.46	8.69
3	Price paid by pre harvest contractor.	4795.46	70.04
4	Marketing cost incurred by pre harvest contractor.	440.42	6.43
5	Marketing margin of pre harvest contractor.	296.78	4.33
6	Price paid by wholesaler	5532.66	80.82
7	Marketing cost incurred by wholesaler	230.33	3.36
8	Market margin of wholesaler	366.39	5.9
9	Price paid by retailer	6129.05	89.53
10	Marketing cost incurred by retailer	215.19	3.14
11	Marketing margin of retailer	501.1	7.32
12	Price paid by consumer	6845.34	100.00
13	Price spread	2645.34	38.59
14	Marketing efficiency	-	2.59
15	Producer's share in consumer rupee	-	61.27%

“The marketing cost is calculated i.e., includes the transportation, loading and unloading charges, weighing charges, labor charges and other miscellaneous charges and also the marketing costs can be determined and by transferring through different channels and involving the different middle parties the marketing margins, price spread and producer’s share in consumer rupee was calculated”.

Marketing Channel:- Producer → Preharvest contractor → Wholesaler → Retailer → Consumer

CONCLUSION

The present study it was concluded that Supply Chain Management and Marketing of chilli is a profitable business. It provides good returns in short span of time. The study pertains to the Supply Chain Management of chilli in Guntur District main objective of the study is to analysis marketing costs, Marketing margin, Marketing efficiency, Producers share in consumer rupee & Price spread. The marketing channel refers to different actors being linked from farm to fork to achieve more effective and market-oriented marketing flow of products. The mar channel may include growers, bagging, transport facilitators, marketers, wholesaler and retailers. Market intermediaries were higher in channel results higher price spread, marketing efficiency and producer’s share in consumer rupee. Hence the marketing channel and marketing efficiency of chili, plays an important role in fulfilling the consumer’s needs.

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