A STUDY ON MARKETING OF SWEET ORANGE IN NALGONDA DISTRICT OF TELANGANA STATE

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Abstract

Sweet orange is one of the most important fruit crop in Nalgonda District of Telangana State. The study aimed to identify the marketing channels, price spread, Marketing cost, marketing margin and marketing efficiency for sweet orange. About 90 farmers were selected from five Mandalas of Nalgonda district of Telangana state to form the sample, 40 market intermediaries including commission agents, pre-harvest contractors, wholesalers and retailers. Four marketing channels were identified. Fifty one per cent of the farmers sold their produce to wholesalers and pre-harvest contractors. Marketing cost was low in channel-I compared to all other channels and channel-I was more efficient than other channels.

Keywords: Marketing cost, sweet orange, price spread and marketing efficiency.

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Introduction

India is showing a substantial increase in production of horticulture crops over last few years. Significant progress has been made in area expansion resulting in higher production. Over the last 10 years it shows 3 per cent increase in area under horticulture and 5.4 per cent in annual production. In the year 2016-17, the production of horticulture crops was about 295.2 million tons with 24.9 million hectares of area. The total fruit production was highest in case of Andhra Pradesh (120.98 Lakh tons) followed by Maharashtra (103.78 Lakh Tons). Sweet orange is an important crop in the Far East, the Union of South Africa, Australia, throughout the Mediterranean area, and subtropical areas of South America and the Caribbean. It is produced in many countries around the world especially in warm and tropical weathers. Sweet orange has a world production of 49.6 million metric tons for the year 2016-2017 (USDA, 2017). India occupies fourth position in production of sweet orange after Brazil, USA and China (USDA 2016).

In India citrus occupies 3rd position after banana and mango in the production among the fruit crops in India. In India, citrus fruits are primarily grown in Maharashtra, Andhra Pradesh, Telangana, Punjab, Karnataka, Uttaranchal, Orissa, Assam and Gujarat. In India total citrus fruits production in the year 2016-17 was127.46 lakh MT among these

mandarins are 47.540 lakh MT, sweet orange 34.970 lakh MT, lime /lemon 27.890 lakh MT and others 17.06 lakh MT (Horticulture statistics division, department of agriculture cooperation & farmers welfare 2016-17). In India 2.09 lakh ha of area is under sweet orange cultivation in the year 2016-17. Telangana state occupies first position in the production of sweet orange in India with the share of 40.95per cent of production. Sweet orange production in Telangana state was 4.23 lakhs tons and Area under sweet orange cultivation was 30520 ha in the year 2016-17.

Review of Literature

Singh and Toppo (2010) in their study on marketing of tomato and found that the marginal farmers preferred to sell their produce through producer-consumer channel, while 40 per cent of small farmers sold their produce through the channel producer-wholesale-retailer-consumer, 35 per cent through producer-consumer channel and 20 per cent through producer-wholesaler-consumer channel.

Bhandare*et al*. (2014) studied the constraints faced by sweet orange growers in Aurangabad district of Marathwada region of Maharashtra they concluded The constraints as more expenditure on tillage as recommendation and doesn't get good seedling on time, labor shortage, more labor wages, lack of irrigation water , electricity problems , high input cost , high transportation cost , , non-availability of regulated market , non-availability of cold storages and processing centers , price fluctuations .

Ankur and Ashutosh (2015) analyzed marketing of sweet orange in Rudraprayg district of Gharwal region of Uttarakhand and identified three distribution channels.

Channel-1: Producer →village level commission/ contractor → retailer → consumer

Channel -2: Producer → local retailer → consumer

Channel -3: Producer → co-operative → retailer→ consumer

Marketing margin of producers in channel-1 was Rs8.64 per kg followed by 6.64, 4.64, in channel-2 and channel-3 respectively. The producer's share in consumer's rupee was highest 70.29 per cent in channel-3 whereas 54.93 and 42.45 per cent in channel-2 and 1 respectively. Channel – 3 was the more efficient with efficiency value of 1.72. Channel-1 was less efficient 0.69.

Objectives

1. To identify the major marketing channels involved in the marketing of sweet orange.

2. To compute marketing costs, margins, price spread and efficiency of marketing channels.

3. To identify the marketing constraints faced by sweet orange farmers in the study area and to suggest the suitable measures to improve sweet orange farmers income.

Methodology

a. Selection of study area

Purposive sampling techniques were used to select district and convenience sampling techniques was used to select the Mandals, villages, market functionaries, markets and farmers required for the study. The present study was conducted in Nalgonda district of Telangana state. Nalgonda district was purposively selected for the study as it stands first in area (21055 hectares) and production (3.13 lakh Metric Tons) of Sweet oranges in Telangana.(Telangana State Horticulture Department, 2016-17) Three villages in each Mandal were selected through convenience sampling technique. Each village six sweet orange farmer respondents were selected through convenience method. Sample size was 90 farmers. The study was also intended to study market intermediaries at various levels of marketing, their marketing costs and margins. Based on convenience sampling techniques 10 samples were selected for each Market intermediaries (Commission agents, Wholesalers, Pre harvest contractors and retailers) for the present study.

b. Selected Mandal's and villages

Name of the Mandal	Villages selected for the study
Nidamanoor	Thummadam, Yeraballi, Marpaka
Kanagal	Gauraram, Ammannagudam and Erugantipalli
Anumula	Yacharam,Thimmapuram, and Ramadugu
Thipparthi	Kothagudam, Marrigudem and Sarvaram
Madgulapalli	kannekal, Narayanapuram, Gandravanigudem

c. Collection of data

Primary data were collected from the selected sweet orange growers, commission agents, pre-harvest contractors, wholesalers and retailers from the study area through survey method with the help of pre-tested questionnaire specially designed for the purpose. The secondary data were collected from Department of Horticulture, Government of Telangana.

Tools of Analysis

a. Marketing cost

These include weighing, loading, unloading, commission of the commission agent, market fee etc., which were paid by the marketing functionaries on per quintal basis

$$= \quad +$$

Where,

Tc: Total cost of sweet orange fruit marketing

Cp: Cost incurred by the farmer

Mci: Marketing cost increased by i^{th} middleman

For the present study marketing costs were calculated to find out the cost occurred for each market intermediaries.

b. Marketing margins

This referred to the net share of different market intermediaries of a particular quantity produce after deducting marketing costs from gross marketing margins at each stage of handling by respective intermediaries of the commodity.

Following marketing margins would be worked out in the study through

$$= \quad -(\quad + \quad)$$

Where,

Ami: The absolute margin of the ith middleman

Pmi : The selling price of the ith middleman

Pp : Farmer's price for his sweet orange produce

Mci : Marketing cost of the ith middleman

For the present study marketing margins were calculated for each and every intermediary involved in the sweet orange marketing.

c. **Price spread**

It is the difference between the price paid by the consumer and the price received by the farmer. The price spread was worked out by using the following method.

$$\text{Price spread} = Pp - Pf$$

Where,

Pp = price paid by the consumer

Pf = price received by the producer

d. **Producer's share in consumers' rupee (Ps)**

It is the price received by the farmer as a percentage in the consumer's price

Ps = (PF/PC) x 100

Where,

PF = price received by the farmer

PC = price paid by the consumer

For the present study price spread was used to find out the sweet orange grower share in sweet orange consumers' rupees.

e. **Marketing efficiency**

Marketing efficiency will be calculated using Acharya and Agarwal method (1998). It can be given as follows,

$$\quad = \quad /(\quad + \quad)$$

Where,

ME: Marketing efficiency

FP: Net price received by the farmer-seller

MC: Total marketing cost

MM: Net marketing margin

For the present study, marketing efficiency was calculated to find out the efficiency level of each marketing channel of sweet oranges.

f. Garrett's ranking technique

Garrett's ranking technique will be used to rank the preference indicated by the respondents on different factors. As per this method, respondents would be asked to assign the rank for all factors and the outcomes of such ranking will be converted into score value with the help of the following formula:

$$\text{Percent position} = \frac{100\,(R_{ij} - 0.50)}{N_j}$$

Where,

R_{ij} = Rank given for the ith variable by j^{th} respondents

N_j = Number of variable ranked by jth respondents

With the help of Garrett's Table, the percent position estimated is converted into scores. Then for each factor, the scores of each individual are added and then total value of scores and mean values of score is calculated. The factors having highest mean value is considered to be the most important factor.

Garrett ranking was used to identify the marketing constraints faced by the sweet oranges and production constraints faced by the sweet orange farmers in the study.

Results and Discussion

a. Marketing channels

In the marketing of sweet oranges four marketing channels were identified in the study area.

Channel – I: producer- commission agent – wholesaler – retailer – consumer.

Channel – II: producer – wholesaler – commission agent – retailer – consumer.

Channel – III: producer – pre harvest contractor – wholesaler – commission agent – retailer – consumer.

Channel – IV: producer – pre harvest contractor – retailer – consumer.

Among the sample farmers 46.66 per cent famers were using the channel – I and 38.88 per cent farmers chosen the channel – II .least preferred channels are channel – III & IV.

Table 1 Marketing costs, marketing margin, price spread and marketing efficiency under different channels

S.No	Particulars	Marketing channels			
		I	II	III	IV
1	Gross price received by farmers (Rs per quintal)	3157	3231.4	2485.7	2516.7
2	Production cost incurred by farmers (Rs per quintal)	1253.5	1706.6	1588	1611.6
3	Marketing cost incurred by farmers (Rs per quintal)	204	0.00	0.00	0.00
4	Net price received by farmer (Rs/q)	1699.5	1524.8	897.7	905.1
5	Total Marketing cost (rs/q)	1126.25	1804.1	2238.6	1793
6	Consumers price (Rs / q)	6250	10200	10000	10500
7	Price spread (Rs / q)	4550.5	8675.2	9102.3	9594.9
8	Total marketing margin (Rs /q)	3125.05	6321.3	8781.4	7357

9	Producers share in consumers rupee (in per cent)	27.19	14.94	8.97	8.62
10	Marketing efficiency (in per cent)	0.39	0.18	0.08	0.09

In channel-I the farmer on an average incurred a marketing cost of Rs.204 per quintal of sweet orange which accounted for 18.09 per cent of the total marketing costs in the channel–1. Farmer incurred an amount of Rs.74.19 towards commission agent charges which is the major item of marketing cost and accounted for 6.58 per cent of the total marketing costs. In channel-II, III and IV farmer did not incur any expenditure towards marketing. The total marketing cost was low in channel-I (Rs1126.25 per quintal) compared to all other channels. As revealed from the above table the total marketing margin in channel –I was low compared to all other channels and also producers share in consumer's rupee was highest in channel-I hence channel –I is the more admirable in terms of consumers and producers both. The market efficiency was found to be high in channel-I with 0.39 per cent compared to all other channels as there is three market intermediaries present in this channel and also marketing costs are less. In channel-III and IV market efficiency was less because of more no. of intermediaries involved and also marketing costs are high .accordingly the market efficiency was 0.08 and 0.09 per cent respectively. In these two channels the sweet oranges were sold through pre harvest contractor.

b. Constraints faced by the producers in marketing of sweet oranges

The problems in marketing of sweet orange as per the opinions of the selected farmers revealed that High costs towards commission agent is the first constraint , shortage of labor during the harvesting, price fluctuations, high transportation cost , low price for produce are the top five constraints faced by the sweet orange farmers while marketing . Lack of market information was ranked as sixth constraint, Absence of grading and processing unit in local area, Lack of cold storage facilities, Lack of supervision by the market committee officials during transactions, Spoilage during transportation are the least constraints faced by the farmers while marketing.

Conclusion

The study showed that for eliminating middlemen in sweet orange marketing farmers can manage to sell their produce directly to processing industries, exporters, retailers, etc. Sweet orange cultivation will be profitable

for them. Transportation costs may be brought down by establishing primary markets in suitable places and within reasonable reach of the farmers. Further, setting up of processing plants in the growing areas would help in reducing the marketing costs particularly transport cost. In terms of quality wise awareness must be created among the farmers on systematic harvesting and quality maintenance, so that they can export to other countries to fetches better prices. Adequate infrastructure pertaining to quality maintenance provided may be to farmers. There must be development on cold storages closer to the major sweet orange markets, will help to stabilize sweet orange prices and prevent the farmers from forced sales. Government have to take necessary steps to boost market intelligence system related to market information like commission agent charges, prices etc.

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