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Marketing of litchi in Muzaffarpur district of Bihar

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Abstract

Marketing of litchi in India is mostly reliant on the quantum of the crop available for sale within the state, outside the state within the Country and outside the Country. The value of the produce as per the cultivar codex, organization support for transport and market information structure about the government policies play a vital role in marketing of extremely perishable litchi fruits. The study was carried out to measure the current status of marketing of litchi and was grounded on the primary data composed from 100 randomly selected Litchi cultivators in Muzaffarpur district of Bihar. The study also planned to find out marketing system and marketing channels tracked by growers in local and overseas as marketing, marketing costs, marketing margin incurred price spread and marketing efficiency resulted in local markets. The producer's share in consumer rupee in channel I is maximum since it is the shortest channel (95.8 percent) however the producer's share in consumer rupee in channel II and Channel III are 82.2 percent and 79.08 percent individually. The price spread in channel I is the lowest since it is the shortest channel (Rs.350) where as the price spread in channel II and channel III are Rs.1495 and Rs. 2195 respectively. The marketing efficiency for channel I, II and III were 24.2%, 5.74% and 4.7% respectively. It is detected from this efficiency index that channel first was the most well-organized one.

Keywords: Market, channel, litchi, marketing efficiency, Bihar, Marketing cost, percent, marketing margin

Introduction

The litchi (*Litchi chinensis* Sonn) is a significant sub-tropical evergreen fruit crop have its place in family Sapindaceae, is supposed to have originated in China, where it has been grown-up in Southern Guangdong state for thousands of years. It is highly precise to climatic necessities and maybe due to this cause its cultivation is limited to few countries in the world. The feast of litchi to other parts of the world was slightly slow perhaps owing to its soil, climatic necessities and short life duration of its seed. Litchi reached India through Myanmar and North East region throughout the 18th Century. In India, litchi was presented in the 18th century through Burma, and from there, it spread to many countries.

The food value of litchi mainly lies in its sugar content which varies from variety to variety. The fruit is also rich in Vitamin B1, Riboflavin & Vitamin C apart from proteins (0.7%), fats (0.3%), carbohydrates (9.4%), minerals (0.7%), fibrous matter (2.25%), calcium (0.21%), phosphorus (0.31%), iron (0.03%) and carotene. Litchi makes an excellent canned fruit. A highly flavored squash is also prepared from the litchi fruits, which is used during summers. Various other products such as pickles, preserves and wine are also made from litchi in China. Dried litchi commonly called litchi-nut is very popular among the Chinese.

Marketing of litchi in Bihar includes the sharing of a sum of middlemen between the producer and last consumers. Subsequently, the price paid by the latter gets reduced when it reaches the producer. There is an important difference between price paid by the consumers and the price received by producers and significant part of it is being assumed by the intermediaries.

Materials and Methods

Litchi and additional fruit crops and vegetables are the main cash crops providing a substantial proportion of marketable surplus to the growers for the markets. The main overwhelming markets for the litchi are Gorakhpur, Lucknow, Jaunpur, Delhi, Calcutta, Patna etc. By truck litchi was transported to Jaunpur, Gorakhpur, Varanasi, Patna and Calcutta etc.

Selection of District

Muzaffarpur district of Bihar was selected purposively for this study. As this district has been recognized as major litchi growing district which is located in the North West part of the Bihar.

Selection of blocks

Two blocks i.e., Minapur and Kanti were selected purposively for the present study on the basis that both the blocks were found major litchi producing in the selected district.

Selection of market and market functionaries

Primary and secondary markets have been selected from Minapur and Kanti block of Muzaffarpur. In Minapur block there was total no. of 18 wholesaler and 20 Trader and from Kanti block total no. of retailer are 8. Selected no. of wholesaler, trader and retailer are 10, 12, 4 respectively.

Three channels are identified based on the initial information

Channel-I: Producer - Consumer

Channel-II: Producer – wholesaler - Retailer – Consumer

Channel-III: Producer – village trader - Wholesaler – Retailer-Consumer.

Nature and source of data

The data were collected by survey method from the sample farmers, Local traders, wholesaler, retailers and consumer by interviewing them with the help of specifically prepared and pre tested schedules for the purpose.

Period of Enquiry

The period of enquiry will be to the agriculture year 2021-22.

Method of Analysis

Cost of marketing

The total cost incurred on marketing in cash or kind, by the producer-seller and by various intermediaries involved in the sale and purchase of the commodity till the commodity reaches the ultimate consumer was computed as follows.

$$C = C_f + C_{m1} + C_{m2} + C_{m3} + \dots + C_{mn}$$

Where

C = Total cost of marketing of the commodity.

C_f = Cost paid by the producer from the time, the produce leaves the farm till sale.

C_{mn} = Cost incurred by the nth middlemen in the process of buying and selling the product.

Producer's share in consumer's rupees

It is the price received by the producer as a percentage in the consumer price.

$$P_s = (P_f / P_c) \times 100$$

If (P_c) is a consumer's price and (P_f) is the producer's price, then the producers share in consumer rupee (P_s) expressed as follows.

Marketing Margin of Middleman

This is the different between the total payments (cost + purchase price and receipts (sale price) of the middleman (Ith agency)

(a) Absolute Margin of the its middleman (A_{mi})

$$(A_{mi}) = P_{ri} - P_{pi} + C_{mi}$$

(b) Percentage margin of the middleman (P_{mi})

$$\frac{(P_{ri}) - P_{pi} + C_{mi}}{P_{ri}} \times 100$$

Where

P_{ri} = total value of receipts per unit table (sale price)

P_{pi} = Purchase value of goods per unit (Purchase price)

C_{mi} = Cost incurred on marketing per unit.

Analysis of price spread under channels

It is the difference between the price paid by the consumer and the price received paid by the producer. The price spread was work by using following method.

Where,

P_p = Price paid by the consumer

P_f = Price received by the farmer

Analysis of marketing Efficiency under different channel

Marketing efficiency is a measure of market performance. The movement of goods from producers to the ultimate consumers at the lowest possible cost consistent with the provision of service desired by the consumers at lowest possible cost consistent with the provision of service desired by the consumers is termed as efficient marketing.

Shepherd's Formula

Shepherd (1965) suggested that the ratio of total value of goods marketed to the marketing cost could be used as a measure of marketing efficiency. The higher this ratio, higher would be the efficiency and vice-versa. This can be expressed in the following form.

$$ME = \frac{V - I}{I}$$

Where,

ME = Index of marketing efficiency

V = Value of goods sold.

I = Total marketing cost.

Result and Discussion

Marketing of litchi

The marketing channel means the route through which a commodity travels from producer to the final consumer. Due to the existence of various agencies working between producer and consumer, there are different marketing channels for the same commodity. The agencies involved in the marketing of litchi in the study area are local traders, wholesalers and retailers. Following marketing channels were observed in the study area in the marketing of litchi.

The different channels through which litchi flows from the point of production till it reaches the consumers were identified and the same were categorized into the following three channels:

Channels-1: Producer- consumer

Channels-2: Producer-Wholesaler - Retailer - consumers

Channels-3: Producer-Village Trader-wholesaler-retailer-consumers

Table 1: Marketing efficiency, marketing cost and margin and producer's share in consumer's rupee in different marketing channels.

| S. No. | Particulars | Channel-1 | Channel-2 | Channel- 3 |
|--------|---------------------------------------|-----------|-----------|------------|
| 1. | Total marketing cost | 350 | 895 | 1295 |
| 2. | Total marketing margin | 00 | 600 | 900 |
| 3. | Price spread | 350 | 1495 | 2195 |
| 4. | Producer share in consumer rupees (%) | 95.8% | 82.2% | 79.08% |
| 5. | Marketing efficiency (%) | 24.2% | 5.74% | 4.7% |

Table 1. showed that the total marketing cost, total marketing margin, price spread and producer's share in consumer's rupee and marketing efficiency in the four different marketing channels. The total marketing cost was highest in channel III (Rs. 1295/ quintal), followed by channel II (Rs.895/ quintal) and channel I (Rs. 350 / quintal) respectively. Price spread of channel III was highest (Rs. 2195 /quintal) followed by channel II (Rs. 1495 / quintal) and channel I (Rs.350 / quintal) respectively. The marketing efficiency under different marketing channel was worked out by using Acharya's Method and revealed that channel I was found to be most efficient with marketing efficiency of 24.2 percent compared to 5.74 percent in channel II, and 4.7 percent in channel III. The low marketing efficiency in channel III was due to higher number of marketing intermediaries in this chain which raises the marketing cost and the margins in the channel and eventually brings down the producer's price.

Conclusion

The study concluded that the marketing efficiency for channel I, II and III were 24.2%, 5.74% and 4.7% respectively. It is detected from efficiency index that channel I was the maximum efficient one. This is because of that fact that channel I does not include any intermediary. The channel II is the minimum efficient one because of the length of marketing channel, multiplicity of margin to the intermediaries and losses due to spoilage.

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