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Price Spread Analysis of Tezpur Litchi: A Case Study from Assam, India

P. Newar[1*] and R. Borah[2]

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ABSTRACT

Purpose: *Being a geographical indication certified fruit, Tezpur litchi enjoys the consumer price difference of Indian Rupees 10 per litchi from the common varieties of litchi. Therefore, it is crucial to consider the different aspects of price spread which will make a way out to provide maximum benefit to the litchi growers. With this motive, this study aimed to analyse the price spread and identify the pattern of marketing channels that would be feasible and give profitable returns to the litchi growers.*

Research Method: *The empirical data were collected from 218 samples that included four channel members i.e., litchi growers, pre-harvesting contractors, retailers and final consumers who are mainly involved in the marketing and consumption of Tezpur litchi. The data were analysed using specific formulas of price spread, the share of channel members in consumer's price and marketing efficiency.*

Findings: *Four patterns of marketing channels were identified for Tezpur litchi. Channel III which included litchi growers, retailers and final consumers was found the most feasible in the study area where 79% of litchi growers directly sell to retailers instead of pre-harvesting contractors. It was observed that price spread, the share of channel members in consumer's price and marketing efficiency shared an inverse relationship with the number of mediators in the marketing channel. However, from the practical point of view, channel III is suggested to the litchi growers for a feasible and profitable return.*

Research Limitations: *Exact information on the distribution of Tezpur Litchi to the other states and countries was not available. Therefore, the geographical scope of the study is limited to Assam.*

Originality/ Value: *Understanding price spread is considered very important to cognise the efficiency of the marketing channels operating for a product. An effective marketing channel not only meets the demand of the consumers but also creates a favourable environment for the growers and intermediaries to increase production and add value to the product.*

Keywords: *Assam, Marketing channel, Marketing efficiency, Price spread, Tezpur Litchi*

INTRODUCTION

India's north-eastern states are known for their Agri-horticulture products. Assam which is one of the north-eastern states is known for its Litchi and Ginger. Litchi is a subtropical fruit, known for its attractive red colour with juicy pulp and excellent flavour. According to the report by the Department of Agriculture, Cooperation and Farmers Welfare, India as mentioned in National Horticulture Board (2021), produces an average of 726 thousand tonnes of litchis each year from an area of 97 thousand hectares thus it grabs the tag of the second-largest producer of litchi in the world, next only to China. From the data provided by the Ministry of Statistics and Programme Implementation (2018), it was

[1*] *Department of Business Administration, Tezpur University, Assam, India.*
purnima.newar@gmail.com
[2] *Department of Commerce, Dibrugarh University, Assam, India.*
https://orcid.org/0000-0002-9087-6561

inferred that Assam, which is situated in the north-eastern part of India, generates 11.1 tonnes of litchi per hectare which is comparatively higher than the highest producing state in India i.e. Bihar. However, litchi grows more or less all over the districts of Assam but the highest production is recorded in the Sonitpur district (Directorate of Economics and Statistics, 2015). Tezpur, which is the administrative headquarter of the Sonitpur district is famous for litchi due to its unique characteristics. Litchi of this area is well-known as 'Tezpur Litchi' and has got geographical indication in the year 2015 by Geographical Indications Registry (2019). It includes different varieties namely, 'Bilaitee', 'Bombaiya', 'Elaichi' and 'Rangiya'. In the present period, a geographical indication is a helpful tool for the identification of products as well as for economic efficiency as it helps the authorized producers to deliver the original product in the market. A geographical indication (GI) tag provides scope for better revenues for its producers and eliminates duplication or unethical practice of selling fake products in the name of reputed products thus helping the producers in maintaining the quality of the products. The physical characteristics of 'Tezpur litchi' which has got GI tag are quite different from the other common varieties of litchi and 'Tezpur litchi' appears in brick red colour, round and very large shape and is bigger than a strawberry and smaller than an apple, has sugar-sweet flavour, compact and scented and the seed is very small. The excellent quality of this fruit also makes a huge difference in its price from the common variety of litchi, where the final market price of common varieties of litchi ranges from Rs 3-5 per litchi on the contrary 'Tezpur litchi' is priced from Rs 13-15 in the market to the final consumers as per data of the year 2018-19. All these aspects show a vast potential to cover domestic as well as global markets. Therefore, it demands an effective marketing channel that benefits the litchi growers and final consumers for proper production and consumption of such premium quality of litchi.

On the other hand, marketing channels present an important landmark in agricultural marketing where each agricultural product gets its due recognition. An effective marketing channel not only meets the demand of the consumers but also creates the value of the agricultural products. The agricultural market, as well as marketing, has gone through a lot of changes in the last few years, but there remain some major hurdles which restrict further development as Assam lacks a well-coordinated marketing system. In the case of different horticulture products as well as for GI tag litchi, the state is not able to generate much revenue as the majority of the produce gets wasted due to the absence of storage facilities and processing initiatives (Gogoi and Saha, 2020). Akter *et al.* (2015) found that litchi production offers a profitable return to growers and needs varietal selection for improving yield and economic return. However, Jha (2011), highlighted in a leading newspaper 'The Times of India', the various problems in litchi production and marketing which included the absence of a proper marketing network, huge price spread and maximum coverage of shares by middlemen on consumers' rupee that affect the market efficiency of litchi in India. Such problems collectively reflect the market inefficiency of any product. Therefore, market efficiency can be well measured by understanding and presenting the price spread as both share inverse relationships (Rajur and Patil, 2015; Sangolkar, 2013). Therefore, understanding price spread is considered very important to identify the remedial measures to provide a higher return to the growers (Joshi, 2011). Naqash *et al.* (2017) define price spread as the variance between the price obtained by the producer and the price paid by the customers and it can be calculated using the marketing cost and margin of the intermediaries involved in the marketing process. Gardner (1975), proposed four methods of measuring price spread that included the difference between the retail and the farm price, retail-firm price ratio, farmer's share in the consumer's price and percentage of marketing margin. It was also highlighted that price spread and the involvement of intermediaries in the marketing channel share an inverse relationship (Shrestha, 2012; Wani *et al.,* 2010). Therefore, it was found more important to study the structure of the marketing channel to make the supply chain more efficient,

ensure a remunerative price for the producers and utmost satisfaction to the final consumers for the price (Huq *et al.,* 2004; Prabhavati *et al.,* 2013). From the conclusion of the study of the price spread by Abdulkadri and Ajibefun (2004); Gandhi and Namboodiri (2015), remarked that to understand price spread it is important to consider the involvement of marketing cost, the structure of marketing channel, marketing margin and grower's share in consumer's rupee that finally reflects the efficiencies and inefficiencies of marketing system of the studied product. This highlighted that understanding price spread is very crucial for stimulating marketing efficiency and the overall development of the marketing system of agricultural products, especially in the case of Geographical Indication tagged Tezpur Litchi which has not been able to cater a larger audience. From the above discussion and literature review, it has been found that various researchers have done a study on the price spread level of different horticultural products but the researcher has come across very limited study. Acharjee *et al* (2021) have done on Tezpur litchi and in particular to its price spread and its marketing channels. The outcome of the study will help to suggest the pattern of marketing channel that will be feasible and give profitable return to the litchi growers.

Observing the above-mentioned gap, this research paper attempted to achieve the following objectives:

I) To determine the marketing channel patterns of Tezpur litchi in the study area.

II) To find the feasible and profitable distribution pattern for the marketing channel members of Tezpur litchi:

   a. To calculate the marketing cost, price spread and market efficiency of Tezpur litchi

   b. To assess the share of channel members in consumer's price

MATERIALS AND METHODS

In the research paper, both primary and secondary sources of data were used to attain the specified objectives. The secondary sources included the related books, journals, government and other websites and also from the government officials of the District Agriculture Office and Krishi Vigyan Kendra of Sonitpur district of Assam, India. The primary data were collected from litchi growers, pre- harvesting contractors, retailers and consumers. It was conducted in Sonitpur district as well as other parts of Assam where such litchi is transported. To understand the different elements for calculating the marketing cost of Tezpur Litchi and the nature of the different elements of the marketing channels, a pilot survey was conducted using a semi-structured schedule. The pilot survey was conducted on 30 Tezpur litchi growers, 2 pre-harvesting contractors, 30 retailers, 31 consumers, 3 Krishi Vigyan Kendra Officers and 7 Agricultural Development Officers of the Sonitpur district. The samples of pre-harvesting contractors, Krishi Vigyan Kendra Officers and Agricultural Development Officers for the pilot study were decided based on the suggested 10% sample for the pilot study of the sample projected (Connelly, 2008). On the other hand, samples of the litchi growers, retailers and consumers were decided according to the flat rule of thumb which considers 30 sample size for the pilot study which is also supported by Birkett and Day (1994), Browne (1995) and Kieser and Wassmer (1996). Based on the information collected from the pilot surveys regarding the existing marketing channels in the study area, the variables of the marketing cost and marketing loss or amount of wastage, a structured schedule was prepared for all the groups of the samples and required data were collected. It was found that besides the population of litchi growers, the population of pre-harvesting contractors, retailers and consumers were unknown. It was found that besides the population of litchi growers, the population of pre-harvesting contractors, retailers and consumers were unknown. As per the record maintained by District Agricultural Office,

Sonitpur (Assam, India), 140 litchi growers were listed as the growers of Geographical Indication certified Tezpur Litchi. Based on the table provided by Krejcie and Morgan in 1970 in the book written by Sekaran and Bougie (2016), 103 samples of litchi growers were chosen using random sampling from Random Number Table. As the population of pre-harvesting contractors and retailers were unknown and can be met only during the harvesting period that is from May – June 2019, therefore, snowball sampling was used and as a result, 5 pre-harvesting contractors and 55 retailers were selected as samples. Due to the infinite number of consumers, the sample size of the consumers was calculated using the formula for 'determining sample size for infinite population' mentioned by Kothari and Garg (2016). This results in 55 samples of consumers by multiplying the square of the value of standard variate at a given confidence level with the square of the standard deviation of the trial sample divided by the square of the acceptable error. Here, the Value of standard variate at a given confidence level was taken as 1.96, acceptable error = 0.80, the standard deviation of the trial sample = 3.02 and the trial sample (in the pilot survey) = 31 consumers. In the field survey, the samples of the consumers were selected using purposive sampling. For analysing and interpreting the data, statistical tools like frequency, average, percentage and bar-diagram were used and presented in the Result and Discussion section. To fulfil the objective of the study, price spread, market efficiency and share in consumer price was required to be ascertained. For calculating the mentioned elements, specific formulas were used with reference to the formulas applied in the prior research papers. The results are presented based on the average of different varieties of Tezpur litchi.

Determination of Marketing Cost

It has been observed that marketing cost is the key element in determining the price spread and market efficiency. Therefore, the detailed calculation of the marketing cost with the given formula uses to determine, is shown with the help of Table 01. The items included to calculate the different particulars of marketing costs were confirmed by conducting the pilot survey. The formulas for calculating the different items of marketing cost were formulated after taking detailed interviews of the litchi growers and sellers in the pilot survey and the same was also confirmed with the help of the experts of Krishi Vigyan Kendra, Tezpur and Agricultural Development Officers of Sonitpur district, Assam.

Determination of Price Spread

The price spread is calculated using the formula provided by Gardner (1975).

"Price Spread = Retail Price (Px) - Farm Price (Pa)"

Determination of Marketing Efficiency

The market efficiency is calculated with the formula provided by Wani *et al.* (2010) which shows

"Market efficiency = $\frac{NP_F}{MC+MM+ML}$

Where, $NP_{F=}$ Net price received by litchi growers

MC= Total marketing cost

MM= Total marketing margin and

ML= Marketing loss"

Table 01: Formulas used to calculate the particulars of the marketing cost, marketing margin and marketing loss of Tezpur litchi

Parameters	Calculation
Marketing cost	Maintenance cost + Selling cost
Marketing loss (Amount of wastage*)	50**% of marketing cost
Maintenance cost	Cost of spraying pesticides + Fertilizer cost + Cost of applying lime + Irrigation cost + Cost of covering net + Cost of pruning branches + Salary of watchmen
Selling cost	Cost of packing + Transportation cost + Cost of carry bag + market tax
Cost of spraying pesticides (per 1000 litchis)	(Price of pesticides + amount invested in spraying tools + Labour charges) × 1000 × 1/ (Total number of fruits bearing trees in a garden × average bearing of litchis in a tree)
Fertilizer cost (per 1000 litchis)	(Price of fertilizer + Amount invested in spraying tools + Labour charges) × 1000 × 1/ (Total number of fruits bearing trees in a garden × average bearing of litchis in a tree)
Cost of applying limes (per 1000 litchis)	(Total price of lime + Labour charges for applying it) × 1000 × 1/ (Total number of fruits bearing trees in a garden × average bearing of litchis in a tree)
Irrigation cost (per 1000 litchis)	(Price of pipes + Price of water pimping machine + Diesel expenses + Labour charges) × 1000 × 1/ (Total number of fruits bearing trees in a garden × average bearing of litchis in a tree)
Cost of covering net (per 1000 litchis)	(Price of net + labour charges) × 1000 × 1/ (Total number of fruits bearing trees in a garden × average bearing of litchis in a tree)
Cost of pruning branches per 1000 litchis)	(Total contract price for pruning the branches) × 1000 × 1/ (Total number of fruits bearing trees in a garden × average bearing of litchis in a tree)
Salary of the watchman (per 1000 litchis)	(Total salary of watchman for the assigned period × Total number of watchmen employed) × 1000 × 1/ (Total number of fruits bearing trees in a garden × average bearing of litchis in a tree)
Cost of packing (Per 1000 litchis)	(Price of bamboo basket + price of rope required) × 1000 × 1/1500 litchis
Transportation cost (Per 1000 litchis)	Vehicle charge per trip × 1000 × 1/ Number of litchis loaded per trip
Cost of carrying bag	The total cost of carrying bags for 1000 litchis

Source: Authors' calculation

** Marketing loss or wastage mainly occurs due to climate, attack by insects, birds and animals, during plucking and packing, transportation and selling.; ** Approximate average percentage of wastage based on the previous years.*

Determination of Share of Channel Members in Consumer's Price

The share of channel members in consumer's price is calculated with the formula used by Meena and Singh (2013), which showed-

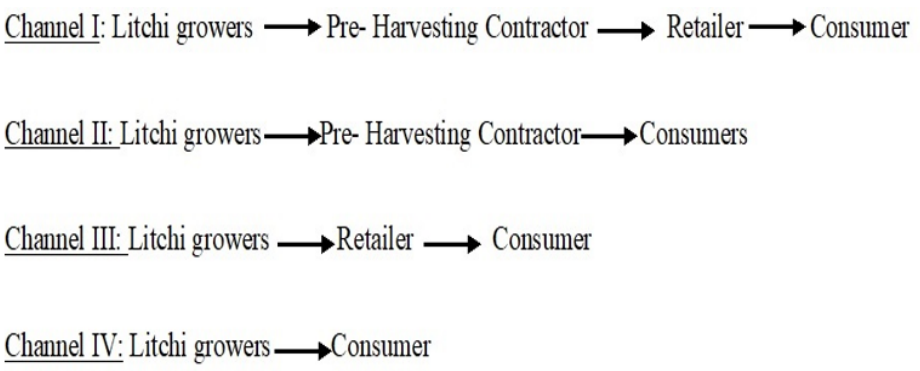
"Share in consumer's rupee = $\frac{P_F}{P_C} \times 100$

Where P_F = Price of the product received by channel members

P_C = Price of the products paid by the consumer

RESULTS AND DISCUSSION

Figure 01. shows the different patterns of marketing channels of Tezpur litchi identified in the study area. It shows that four parties are involved in the marketing channels of Tezpur litchi, they are litchi growers, pre-harvesting contractors, retailers and consumers. On observing the role of each channel member across the different marketing channels, it was found that in channel I and II, the litchi growers lease the litchi garden to the pre- harvesting contractor for one year or more than one year. In channel III, the litchi growers sell the fruit to the retailers instead of pre- harvesting contractors as such a form of selling provides them with more profit. However, in channel IV, the litchi growers are engaged in the activities of maintenance and selling of litchis. They sell it directly to the consumers. Such practice is generally performed by small growers. In this channel, the farmers get more profit in comparison to the other three channels. The pre- harvesting contractor takes the litchi trees or garden on contract at the time when the trees start to bear the fruit which generally occurs in February- March of every year. Sometimes the pre- harvesting contractor may take the garden on contract for 3-4years where they continuously bear the maintenance cost of the garden. He fixes the price of the contract based on the estimation of the bearing capacity of the fruit, its quality, demand in the market, maintenance cost and the wastage and spoilage due to climatic conditions, animals and birds. In channel II, the pre-harvesting contractor performs the function of the retailer as well. The main role of the retailer is to purchase the litchis from the pre- harvesting contractor and sell it to the final consumer. However, in the case of channel III, the retailer generally follows the system of buying the litchi tree on contract from the litchi growers. He takes the whole fruit-bearing tree on contract, especially during the harvesting period. The last member of this channel is the consumer. The consumer buys the fruit more or less at the same price. Still, they pay comparatively less price when they buy directly either from pre-harvesting contractors or litchi growers. However, the price paid by the consumer depends upon his bargaining power, quality of the fruit and seller's margin of profit. By analysing the data, it was found that 79% of litchi growers sold to retailers, 13% to pre-harvesting contractors and the remaining 8% directly to the final consumers. From the pre-harvesting contractors, it was found that 82% of pre- harvesting contractors sold to retailers and 18% to final consumers. It was inferred that Channel III was the most adapted channel followed by Channel I, Channel II and Channel IV. Several factors were identified as influencing the choice of channels such as easy method of selling, availability of buyers, immediate cash after-sale, less risk-bearing, better prices and less responsibility of maintenance. Litchi growers mainly sell to pre-harvesting contractors due to less risk bearing, no responsibility for maintenance and an easy method of selling. They opt to sell to retailers due to their availability, immediate cash after the sale and no time to reach final consumers. Better price is the only reason to sell to the final consumers.



Source: Field survey

Figure 01: Marketing Channel Patterns of Tezpur Litchi

Marketing Cost of Tezpur Litchi across Different Marketing Channels

To determine the price spread of litchi across different marketing channels, it is important to understand the marketing cost incurred by the channel members across different marketing channels and it is presented with the help of Table 02.

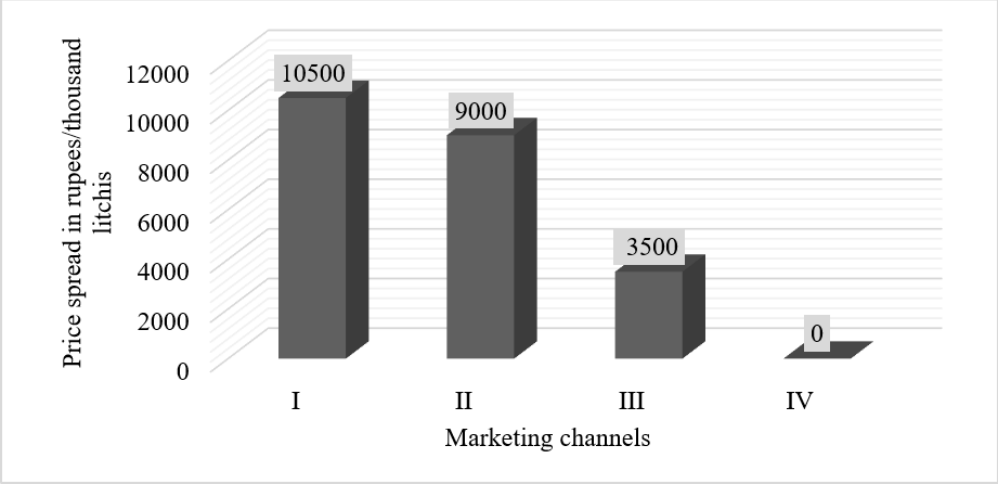
As shown in Table 02, the pre- harvesting contractors covered the highest percentage of marketing cost among all other channel members in channel II and litchi growers incurred the highest marketing cost in channel IV when litchis were sold directly to the consumers. And in the case of retailers, the marketing cost incurred by them in channel III and I is the same.

Table 02: Marketing cost of Tezpur litchi across different marketing channels

Particulars	Channel I (in Rupees Per 1000 litchis)	Channel II (in Rupees Per 1000 litchis)	Channel III (in Rupees Per 1000 litchis)	Channel IV (in Rupees Per 1000 litchis)
1. Litchi growers				
Marketing Cost	0	0	2160(15.43%)	2217(17.74%)
Marketing loss	0	0	1080 (7.71%)	1109 (8.87%)
Total	0	0	3240 (23.14%)	3326 (26.61%)
Profit Margin	3500(25%) *	3500(28%)	7260(51.86%)	9174(73.39%)
Net Price Received by litchi growers	3500(25%)	3500(28%)	10500(75%)	12500(100%)
2. Pre- Harvesting Contractors				
Purchase Price	3500(25%)	3500(28%)	0	0
Marketing Cost	2039(14.56%)	2256(18.05%)	0	0
Marketing loss	1020 (7.29%)	1128 (9.02%)	0	0
Total	6559(46.85%)	6884(55.07%)	0	0
Profit Margin	4441(31.72%)	5616(44.93%)	0	0
Sale Price	11000(78.57%)	12500(100%)	0	0
3. Retailers				
Purchase Price	11000 (78.57%)	0	10500(75%)	0
Marketing Cost	670(4.79%)	0	670(4.79%)	0
Marketing loss	335 (2.39%)	0	335 (2.39%)	0
Total	12005(85.75%)	0	11505(82.18%)	0
Profit Margin	1995(14.25%)	0	2495(17.82%)	0
Sale Price	14000(100%)	0	14000(100%)	0
4. Purchase Price by Consumer	14000(100%)	12500 (100%)	14000(100%)	12500 (100%)

Source: Field Survey

**Percentages% in the parentheses () represents the percentage of the final price paid by the final consumer in the market. For example, the percentage of marketing cost is calculated based on the total selling price to the final consumers.*



Source: Field survey

Figure 02: Price spread of Tezpur litchi across the identified marketing channels.

Price Spread of Tezpur Litchi

The price spread of Tezpur litchi across the identified marketing channels is portrayed with help of Figure 02.

Across the four channels, the price spread is calculated with the difference between the purchase price by the final consumers and the net price received by the litchi growers. The numbers on the price paid by the final consumers and the net price received by the litchi growers across the different marketing channels can be referred to in Table 02. It is well known that the minimum gap between the retail price and farm price is the indication of the profitable situation of litchi growers thus through Figure 02, the litchi growers can be suggested to adopt channel IV for more returns. But there requires a clearer picture to decide the suitable marketing channel for litchi growers. As it is discussed in several research papers, price spread is an important tool to predict the market efficiency of a particular marketing channel, therefore, table 03 and figure 03, show the market efficiency and channel members' share in consumer's price respectively.

Table 03: Marketing efficiency across the identified marketing channels of Tezpur litchi.

Particulars	Channel I (Rupees Per 1000 litchis)	Channel II (Rupees Per 1000 litchis)	Channel III (Rupees Per 1000 litchis)	Channel IV (Rupees Per 1000 litchis)
Net price received by litchi growers	3500	3500	10500	12500
Total marketing cost	2709	2256	2830	2217
Total marketing margin	9936	9116	9755	9174
Marketing loss (Amount of wastage)	1355	1128	1415	1109
Marketing efficiency	0.25* $\left[\frac{3500}{2709+9936+1355}\right]$	0.28 $\left[\frac{3500}{2256+9116+1128}\right]$	0.75 $\left[\frac{10500}{2830+9755+1415}\right]$	1 $\left[\frac{12500}{2217+9174+1109}\right]$

Source: Field survey

**The arrangement of numbers within the parenthesis () against each value of marketing efficiency across the different marketing channels is the calculation to obtain the marketing efficiency of each marketing channel.*

Marketing Efficiency of Tezpur Litchi

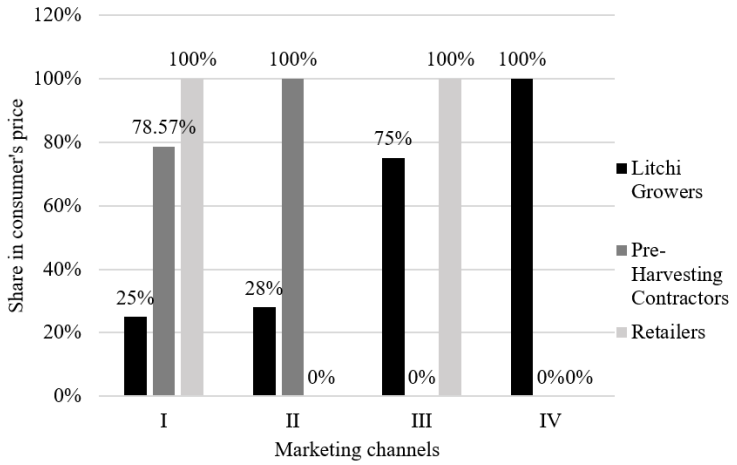
For calculation of marketing efficiency, marketing loss is also considered based on the justification provided by (Wani *et al*., 2010). It was noted from the field survey that the amount of wastage or marketing loss plays a crucial role in fixing the profit margin and selling price of litchi. Based on the conclusion by Rajur and Patil (2015); Wani *et al.* (2010); Hamid *et al.* (2017), the higher the marketing efficiency more efficient the marketing channel is. In Table 03, it can be seen that Channel IV has the highest marketing efficiency among other marketing channels. Therefore, it can be inferred that Channel IV is the most efficient marketing channel followed by Channel III, II and I.

Share of Channel Members of Tezpur Litchi in Consumer's Prices

Share of channel members in consumer's price helps to make a detailed analysis of the price spread of a product and it is portrayed with the help of figure 03.

The share of channel members in the consumer's rupee is calculated by multiplying the price of the litchi received by the respective channel member by 100 and dividing it by the purchase price by the final consumer, as used by Meena and Singh (2013). The numbers on the price of the litchi received by the respective channel member and purchase price by the final consumer across the different marketing channels can be referred to in Table 02. Of the four channels, channel IV (Litchi growers Consumers) shows the highest percentage of litchi growers' share in consumer's rupee similar to the findings of Kumar *et al.* (2022). From channel II and channel III, it was concluded that for litchi growers, selling to retailers proved more profitable than selling to pre-harvesting contractors because in channel III, litchi growers shared 47% more of consumer's rupee than channel II. For pre- harvesting contractors, channel II provides more coverage on consumer's rupees. However, for retailers, adoption of any channel I or II provides an equal portion of the consumer's rupee.

Besides the above findings, the channel members were also asked about the problems they were facing in the marketing of Tezpur litchi with the prospects of its improvement. The common problems that were highlighted from the response of the litchi growers, pre-harvesting contractors and retailers were the perishability of the fruit and lack of storage facility. The prevalent problem common to litchi growers and pre-harvesting contractors was the lack of a processing unit. Delay in government assistance and shortage of supply were the problem specific to litchi growers and retailers respectively.



Source: Field survey

Figure 03: Share of marketing channel members in consumer's price.

CONCLUSION

From the discussion, it is concluded that there were four patterns of marketing channels operating in the study area for the marketing of Tezpur litchi. On analysing the marketing channels, it was found that Channel IV (Litchi growers Consumers) proved the most beneficial marketing channel for the litchi growers based on the effective result of market efficiency, price spread and share in consumer's rupee. But, for the practical implication, it is important to understand the feasibility of marketing channels that operate in the study area. From this point, it was found that Channel III (Litchi growers Retailers Consumers) was the most followed channel for litchi growers which also had a more effective result of market efficiency, price spread and share in consumer's rupee than Channel I and II which was contrary to the findings of Kayastha et al. (2020) and (Chaudhary and Ramchandra). Based on all these facts, channel III can be suggested to the litchi growers in the study area for a feasible and profitable return. Along with this, it has been noted from the survey that litchi cultivation has a very good scope in the study area. Favourable climatic condition acts as a suitable factor for comparatively less cost of maintenance and availability of excellent qualities of litchis in Tezpur, India. Most importantly, the special variety of litchis grown in the study area makes a wide difference in its price from the common variety of litchi. However, shortage of production, lack of proper market infrastructure and post-harvesting management facilities were seemed as some of the major hindrances to its proper marketing and covering wider consumers.

Therefore, more effort should be made to improve the production and market efficiency of Tezpur litchi.

Policy Implication

Tezpur litchi can be made to grab government attention to some extent and several steps have been taken by the government bodies to create its awareness. However, there is still a gap for improvement in its marketing. Litchis by nature are perishable and have a short harvesting period, therefore, establishing of cold storage facility for increasing its shelf life and setting up of processing industry would help to create value-addition of the fruit and reduce the post-harvesting losses. In addition to that, setting a proper network for easy flow of market information to the litchi growers, timely and proper implementation of government supporting programmes and organizing fruit festival at the time of its harvesting are the crucial steps that need to be considered to increase more awareness about the excellent qualities of Tezpur litchi among the fruit lovers.

The study has been embarked upon with the expectation that the findings and the specific suggestions will benefit the litchi growers, traders, government and extension workers in their specific job. Along with this more research on the cost of production, marketing surplus, effective distribution, export potential and value chain analysis of litchi from Assam and India can be carried out.

Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this paper.

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