

# Marketing Pattern and Marketing Efficiency of Organic Turmeric in Kakching District of Manipur, India

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## ABSTRACT

The Present study on marketing pattern and efficiency of organic Turmeric in Kakching district of Manipur was initiated during 2020 to 2022 with the selection of 120 respondents and it was categorized into four groups viz., Marginal, Small, Semi medium and medium sizes groups based on available cultivable land under selected spice crops. To achieve the specific objective of the present study a multistage purposive stratified random sampling method were adopted. Further data reveals that on the selected farm size group the majority of the respondents (93.00 per cent) belonged to semi-medium land holding with an area of 2.01-3.0ha. While in marketing of ginger, the total marketing cost was found to higher in Channel-II (₹ 15.1/kg) and lower at Channel-IV (₹ 10.3/kg). The largest chunk of margin was enjoyed by Channel-I (₹ 96,587.5) followed by Channel-III (₹ 69,060.7) and lowest at Channel-II (₹ 16,517.0). On assessing efficiency, through Acharya's method it was found that marginal farm size group was more efficient (59 percent) and least efficient is found to be medium farm size group (52 per cent). Using Shepherd formulae marginal farm size group (159 per cent) was found to be most efficient and the least efficient is found at medium farm size group (152 per cent) respectively. The producers's share in consumer's price was found to be higher in marginal and small farm size group (31 per cent) each and minimum at medium farm size group (29 per cent) respectively.

**Keywords:** Turmeric, Marketing pattern, Efficiency, Spices

USDA defines organic farming as "Organic farming is a system of which avoids or largely excludes the use of synthetic inputs (such as fertilizers, pesticides, hormones, feed additives etc.) and to the maximum extent feasible rely upon crop rotations, crop residues, animal manure, off-farm organic waste, mineral grade rock additives and biological system of nutrient mobilization and plant protection" (TNAU Agritech Portal).

The North eastern hilly region, green belt of India which comprises states namely Assam, Arunachal Pradesh, Meghalaya, Mizoram, Nagaland, Tripura

and Sikkim harbours rich flora on account of its varied topography, climates altitudes and has great potential for the development of Horticultural crops including spices. It is the hub for major spices like large cardamom, ginger, turmeric, black pepper, chilli, bay leaf etc. Which are in great demand and has tremendous potential (Hnamte *et al.* 2012).

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NEH region is home to some niche spice crop like Lakadong turmeric, Bird's eye chilli, King Chilli and Nadia ginger which has high market demand for their unique features (Momin *et al.* 2018)

Turmeric (*Cucurma longa* L.) is commercially important spice of India in general and Manipur in particular is the most extensively cultivated spice. It belongs to the family Zingiberaceae. The rhizome has yellow pigment curcumin which is the main active compound and colouring agent. Curcumin has certain therapeutic properties. Traditionally it is also an important ingredient in curry, dishes, religious observances, cosmetic and dye. It is extensively used in preparations of indigenous medicines. Turmeric is closely related to ginger since it is dried rhizome herbaceous plant (Dahal and Idris, 1999). The spices also sometimes called "Indian saffron" attributed to its yellow colour. It has highest diversity comprising 40 spices (Asraf *et al.* 2017) and some important varieties exported outside.

Major export market for Indian organic producers are Australia, Belgium, Canada, France, Germany, Italy, Japan, Netherland, Sweden, Singapore, South Africa, Saudi Arabia, UAE, UK and USA. The current estimated share of organic foods in these countries is approximately 1.00 to 1.50 per cent (Garibay and Jyoti, 2003).

Manipur enters into organic map with the launching of National centre for organic in 2004 three field demonstration were conducted in different location viz. (Thoubal, Imphal East). Tarengpokpi, Keithelmanbi and Tentha after a month long advertisement on importance of organic farming through AIR (rural program) and local program sponsored by SFAC and has created an immense platform throughout the state in mobilising organic farming by providing composite owned by privates and NGO's in three district of Manipur viz. Thoubal, Imphal East, Imphal West and Senapati and has promoted the first model of contract farming of 23.00 ha of turmeric in 2004 financed by SBI, Imphal and 75.00ha (SFAC, 2004).

Ningombam *et al.* (2019) in their paper entitled "Post harvest losses at various stages of handling from farm level to the consumer in Manipur". The Post harvest losses at farm level were competent which counted with a loss of 8.44 percent loss. At Wholesale

market including transportation accounted for about 93 percent. The losses at retailer storage unit and consumer level accounted for about 5.46 percent, 3.19 percent and 6.83 percent respectively the post harvest loss at different stages from farm level up to the consumers accounted for about 34.49 percent.

Turmeric is mostly marketed in raw and powdered form. The local demand is generally lesser, so a large amount of produce is available as marketable surplus. However due to its perishable nature of the commodity there was significant number of losses during transportation (SYMSAC-IX, 2018). According to FAO estimates 25.00 percent of the turmeric crops are affected by mycotoxins each year and crop loss due to aflatoxin and 20.00 to 25.00 percent of the produce is wasted due to damaged post harvest management during storage, grading and transportation (SYMAM-VII, 2013).

## MATERIALS AND METHODS

According to a report prepared by National Institute of Agricultural Marketing (NIAM) on marketing strategies for organic produce of Manipur. Even though the produce from Manipur is organic it has not been branded and positioned as premium product. Most of the spices and plants are available in market throughout the year and steeping up in spice production is primarily due to increase in yield growth though quantity available varies with seasons or months and the prices are same in all season except lower during growing or availability period of a particular species (Singh *et al.* 2020). Due to lack of organised market and marketing channel of organic spices the produce sold at conventional market results a great loss in value of organically grown crops. The state lacks in post-harvest infrastructure and market access also most farmers are traditional and do not want to take a risk. They sold the produce either in local market or to local trade. For the present study two blocks viz., Kakching and Langmeidong were selected. For the marketing and post harvest loss activities or information with the help of FPO's and progressive farmers altogether 120 respondents from wholesaler, 50 respondents from retailers and 10 respondents from consumers were selected.

## Price variation in different marketing channels

Marketing cost will be calculated by estimating the

cost incurred in the process of marketing of Turmeric crop depending on the channel.

### Marketing margin

Marketing margin at any stages of marketing will be calculated by follows;

$$MM_i = SP_i - (PP_i + MC_i)$$

Whereas  $MM_i$ : =Marketing margin of the  $i^{\text{th}}$  middleman;  $SP_i$  = Selling price of the  $i^{\text{th}}$  middleman;  $PP_i$  = Purchasing price of the  $i^{\text{th}}$  middleman;  $MC_i$  = Marketing cost incurred by the  $i^{\text{th}}$  middleman.

### Marketing efficiency

Marketing efficiency is the degree of market performance.

The efficiency of various identified marketing channels was calculated through the use of Acharya's formula and Shepherd's formula.

There are three methods of calculating marketing efficiency,

Acharya's formula,

$$ME = NPF / MC + MM$$

Where,

$ME$  = Modified measures of index of marketing efficiency;  $NPF$  = Net price received by farmers;  $MC$  = Marketing cost;  $MM$  = marketing margin.

Shepherd's approach,

$$ME = V / I - 1$$

Where,

$ME$  = Index of Marketing efficiency;  $V$  = Value of goods sold (Consumers' price);  $I$  = Total marketing cost.

### Market returns (Net returns)

The net return is the difference between price received and cost incurred.

This is mathematically presented as:

$$NR = \sum P_i v_i - (FC + VC) \text{ (adopted from Pomeroy, 1989)}$$

Whereas:

$NR$  = Net return (₹),  $P_i$  = Average price of dry fermented sold/week (₹)

$V_i$  = Number of posts sold per week (₹)

$V_c$  = Variable cost (₹), If NR gives figure, the market would be expected to be efficient.

### Price spread

Price spread is the difference between the price paid by the consumer and the price received by the producer. It mainly consists of marketing costs and margin. The price spread analysis will be carried out as follows-

Producer's share in consumer's rupee =

$$\frac{\text{Producer's price}}{\text{Consumer's price}} \times 100$$

## RESULTS AND DISCUSSION

### Marketing pattern and marketing efficiency of organic turmeric

Turmeric being spice crops, farmers usually do not retain the produce for family consumption. Thus, the entire quantity of the produce is available as marketable surplus. In the present study four channels were identified in the marketing of Turmeric.

- ♦ Channel I: Producer-Consumer
- ♦ Channel II: Producer-Processor-Wholesaler
- ♦ Channel III: Producer-Retailer
- ♦ Channel IV: Producer-Wholesaler-Retailer-Consumer

Table 1 reveals that the marketing cost incurred by the intermediaries of four channels in the marketing of turmeric. The total marketing cost was highest in channel -II (₹ 15.1 per kg) followed by channel-I (₹ 11.9 per kg), channel-III (₹ 11 per kg) and the lowest was found at channel -IV (₹ 10.3 per kg).

Table 2 reveals that the marketing margin of the intermediaries at various stages of marketing. Total marketing margin was found to be highest in channel-II (₹ 96,587.5) followed by channel-IV (₹ 69,060.7) and lowest at channel-III (₹ 16,517) respectively.

Table 3 shows the empirical assessment of marketing efficiency of turmeric in channel-IV. Through

**Table 1:** Marketing cost of Turmeric through different channel (₹/Kg)

Sl. No.	Category	Marginal	Small	Semi-Medium	Medium	Total Marketing Cost (₹/Kg)
1	Channel-I Producer → Consumer	3.0	2.8	2.9	3.2	11.9
2	Channel-II Producer → Processor → Wholesaler	3.9	3.9	3.8	3.5	15.1
3	Channel-III Producer → Retailer	2.9	2.8	2.8	2.5	11.0
4	Channel-IV Producer → Wholesaler → Retailer → Consumer	3.0	2.6	2.5	2.2	10.3

**Table 2:** Marketing margin of intermediaries in different channel (In ₹)

Sl. No.	Category	Marginal	Small	Semi-Medium	Medium	Total marketing margin (in ₹)
1	Channel-II Producer → Processor → Wholesaler	95,544	79,037	99,124	153,515	96,587.5
2	Channel-III Producer → Retailer	11,439	15,219	16,674	23,300	16,517.0
3	Channel-IV Producer → Wholesaler → Retailer → Consumer	87,703	58,970	71,233	72,881	69,060.7

**Table 3:** Marketing efficiency of different marketing channels of turmeric

Sl. No.	Particulars (Channel IV)	Marginal (₹/Kg)	Small (₹/Kg)	Semi-Medium (₹/Kg)	Medium (₹/Kg)
1	Consumer's/Terminal Market Price	50.87	45.74	43.90	41.13
2	Total marketing cost	3.00	2.63	2.48	2.20
3	Total margin of the intermediaries	29.00	26.28	25.57	24.80
4	Price perceived by farmers	18.87	16.82	15.85	14.13
5	Value added by the marketing system	32.00	28.91	28.05	27.00
<b>Index of marketing efficiency (Percentage)</b>					
6	Acharya's method	59%	58%	57%	52%
7	Shepherd method	159%	158%	157%	152%

Acharya's method for marginal farm size group was found to be more efficient (59 per cent) than small farm size group (58 per cent) and medium farm size group (57 per cent) and lowest at medium farm size group (52 per cent). Using Shepherd's formula marginal farm size group (159 per cent) was found to be more efficient than small farm size group (158 per cent), semi-medium farm size group (157 per cent) and medium farm size group (152 per cent).

Table 3 reveals that the price spread in marketing of turmeric of channel-IV. The producers share in consumers price was found to be high in marginal and small farm size group (31 percent) each followed by semi medium farm size group (30 per cent) and minimum at medium size farm group (29 percent). Thus, in marketing of turmeric marginal farm size group and small farm size group are found to be efficient.

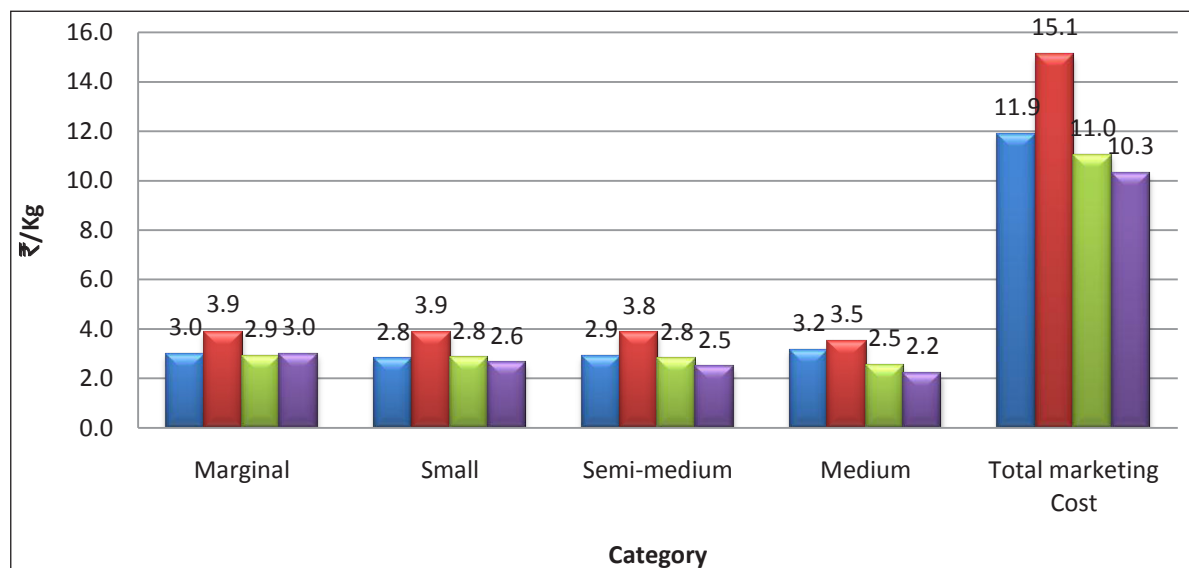


Fig. 1: Cost of Marketing through different channel (₹/kg)

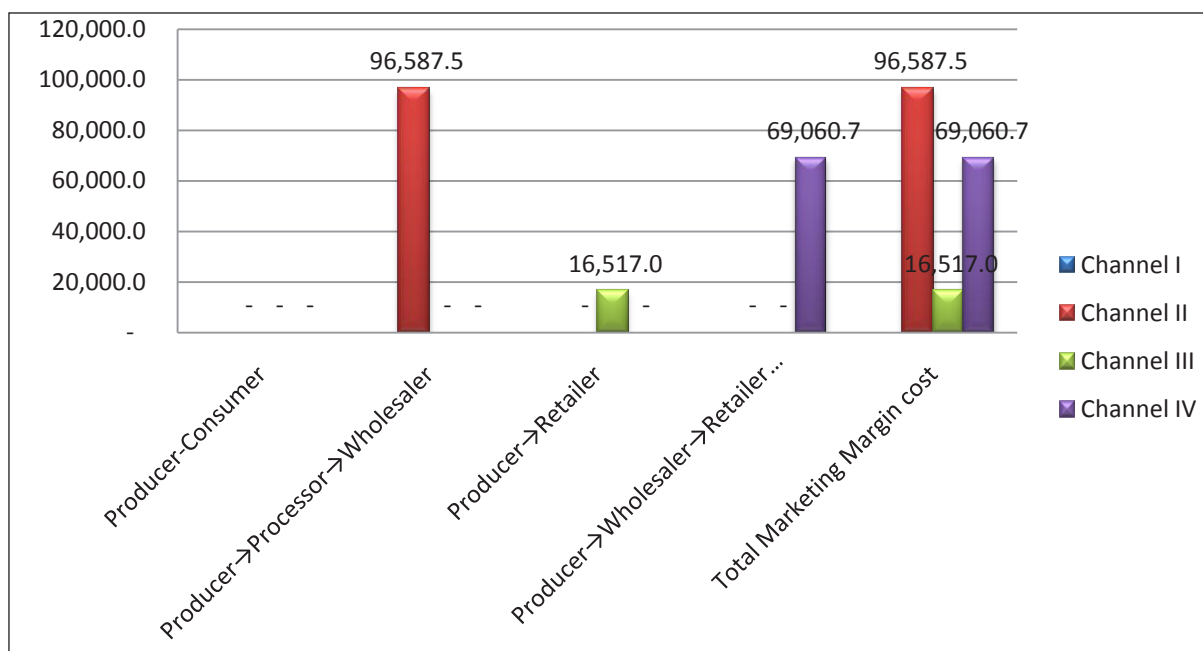


Fig. 2: Marketing margin of intermediaries in different channel (in ₹)

It is concluded that marketing of turmeric, the highest cost was incurred by marginal and small farm size group (₹ 3.9/-per kg) each in channel II, followed by semi medium farm size group in channel-II, total marketing cost was found to be highest in Channel-II (₹ 15.1/- per kg) followed by Channel-I (₹ 11.9/- per kg), Channel-III (₹ 11.0/- per kg) and lowest was found at Channel-IV (₹ 10.3/- per kg). The largest chunk of margin was enjoyed

by Channel-II (₹ 96,587.5) followed by Channel-IV (₹ 69,060.7) and lowest at Channel-III (₹ 16,517.0) on assessing efficiency, through Acharya's method for marginal farm size group was found to be more efficient (59 percent) followed by small farm size group (58 percent), semi-medium farm size group (57 percent) and lowest at medium farm size group (52percent). Through Shepherd's method marginal farm size group (159 per cent) was found to be more



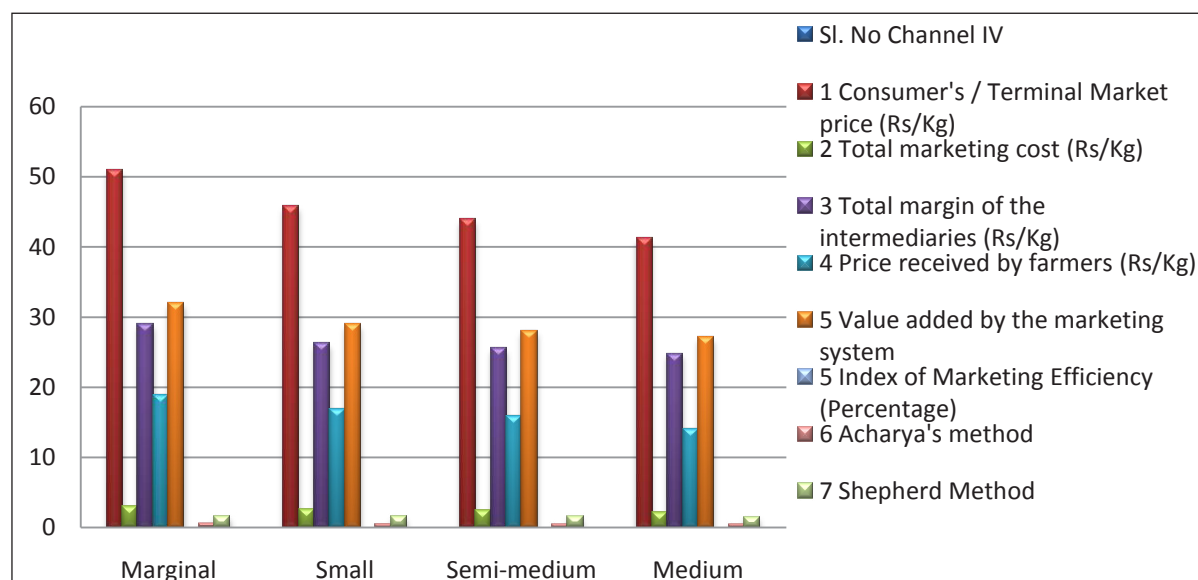


Fig. 3: Marketing efficiency in different marketing channel of Turmeric

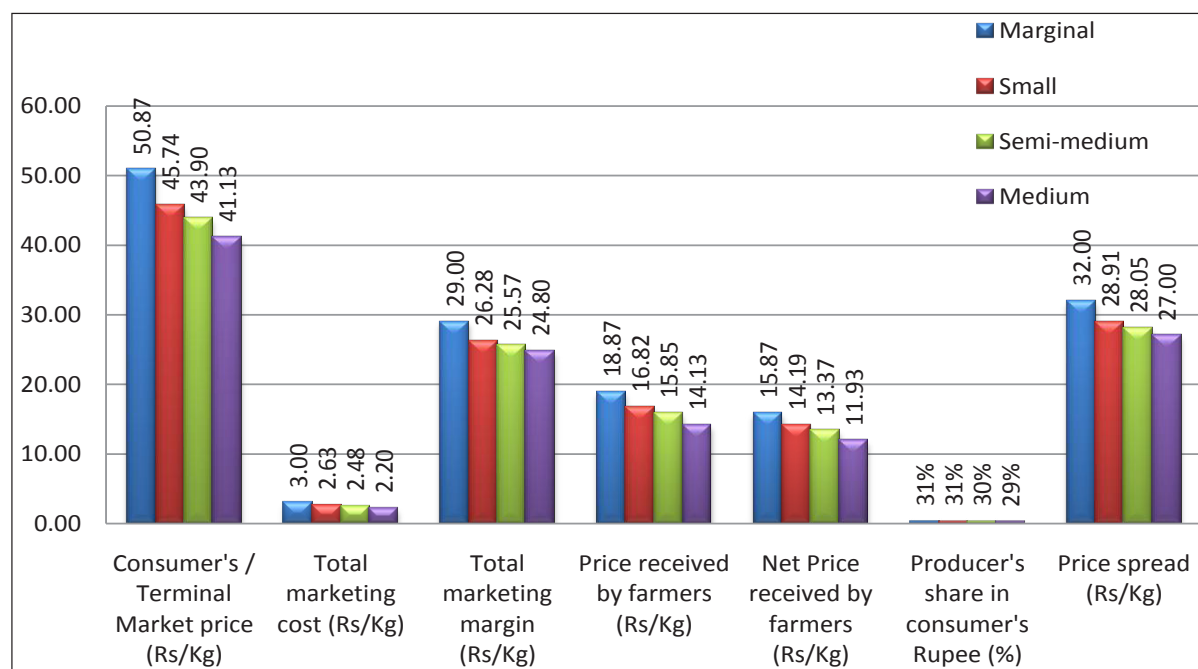


Fig. 4: Price spread in different marketing channel of Turmeric

efficient than small farm size group (158 percent), semi-medium farm size group (157 percent) and medium farm size group (152 percent).

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