

## Marketing Efficiency of Major Spices in Madhya Pradesh with Special references to Farmer Producer Organization (FPOs)

### Abstract

Small Farmers' Agribusiness Consortium (SFAC) and NABARD are providing technical & financial support for promotion of FPOs. The Kutir Agri Producer Company Limited, Betul is basically a corporate body registered as a Producer Company under Companies Act, 1956. The total spices grower members 214 and by using proportionate random sampling method subjected to minimum 50 sample respondents for the study has been selected. The maximum profit margin is obtained by FPO in garam masala (₹4533.85), red chili (₹1474.97), Coriander (₹1350.81) and turmeric (₹1037.16) respectively. The costs per quintal are imposed by the wholesalers on garam masala (₹151.81), chili (₹133.57) turmeric (₹137.39) and coriander (₹134.88) respectively. Retailer earn margin (2.5%) on garam masala (₹952.38), red chili (₹315.03), coriander (₹289.09) and turmeric (₹225.15) per quintal respectively.

**Key words:** Marketing efficiency, spices, Farmer producer organization

### Introduction

A Producer Organization (PO) is a legal entity formed by primary producers, viz. farmers, milk producers, fishermen, weavers, rural artisans, craftsmen. FPOs are one type of PO where the members are farmers. Small Farmers' Agribusiness Consortium (SFAC) and NABARD are providing technical & financial support for promotion of FPOs. It is voluntary organizations controlled by their. It is a group of small and marginal farmer-members who actively participate in setting their policies and making decisions.

There are about 12.50 crore farmer families in India, out of which more than 85% are small farmers with less than 2 hectares of land. The average size of land holding is 1.08 hectares per farmer. Due to this fragmentation and disorder, farmers have to face many disturbances such as purchase of seeds and fertilizers at reasonable prices, lack of bargaining power in the market, lack of better prices for their produce, use of technology etc. About 160 Farm FPOs are being operated in Madhya Pradesh; the farmers associated with the company are its shareholders as well as its owners.

The Kutir Agri Producer Company Limited, Betul is basically a corporate body registered as a Producer Company under Companies Act, 1956 (As amended in 2002). The same provisions have been retained for FPC after the amendment of Companies Act in 2013. Its main activities consist of spices Procurements & Processing services for their benefit. It provides for sharing of profits/benefits among the members. The Department of Agriculture

and Cooperation, Ministry of Agriculture and Farmer Welfare, Govt. of India has identified farmer producer organization registered under the special provisions of the Companies Act, 1956 (As amended in 2002), now companies Act, 2013, as the most appropriate institutional form of aggregation of farmers. The main objective of mobilizing farmers into member owned producer organizations. Small holder farmers in developing countries are facing problems such as poor infrastructure. access to assets and services resulting in higher transaction cost and lower participation in market (Key et al., 2000; Barret 2008; Bernard and Spiel man 2009; Fisher and Qaim 2012).

It was established in the year 2016 at JawravikasnagarAthner block of Betul district under hand holding support of Naman Sewa Samiti, a Non-Government Organization (NGO) which act as Producer Organization Promoting Institution (POPI) and building capacity of the staff of the Farmer Producer Organization (FPO) through training and continuous handholding. Turmeric is useful in preparing dye, drugs and cosmetics. It has unique importance in performing pooja& manyreligious and marriage ceremonies in Indian culture (Patil *et al*,2009).It is an important spice crop of the stateand grown as cash crop for market. In the new economic environment theremarkable achievement is that the agricultural economy has substantiallychanged from subsistence to market oriented economy and truer for the cropswhich have an export potential like turmeric(Chintey, 2017).Theinvolvement of large number of marketingintermediaries pushes the marketing cost andproducers get lower shares in consumer's rupee (Agarwal, 1998, Verma *et al.*, 2013Verma&Jheeba, 2016). The price of red chili pepper is highly volatile, especially the dry season in 2019 last year which gave the effect of increasing the price of red chili pepper at the consumer level. This study aims to analyses the marketing of red chili pepper using price efficiency analysis (Nasution *et al*,2021).The price spread and marketing efficiency of the various supply chain models identified for Coriander leaves. The Price Spread is calculated by subtracting the price paid by the consumer and the net price received by the farmer of coriander crops(Vignesh and Deepa, 2018).

### **Objective**

To work out the Marketing Cost, Margin, Producer's Share in Consumer's Rupee, Price spread and marketing efficiency of coriander, red chili, turmeric and garam masala.

### **Methods&Material**

A list of all the producer members of the Kutir Agri Producer Company Limited under Betul locations of Madhya Pradesh was collected with the consultation of respective FPOs from the list of the producer members of the FPOs. The total spices grower members 214 and by using proportionate random sampling method subjected to minimum 50 sample

respondents for the study has been selected. These are 23.36 per cent sample members of total members of FPO. These respondents were taken from 6 villages out of 14 villages of spices growers of Jawravikasnagar Athner block of Betul district of Madhya Pradesh. Both primary and secondary data were collected for the study year in 2019-20.

## Marketing Analytics tools

### 1. Cost of marketing

The movement of the products from the producers to the ultimate consumers, the total cost incurred on marketing by various intermediaries involved in the sale and purchase of the commodity till it 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

C<sub>f</sub> = Cost borne by the producer farmer from the produce leaves the farm till the sale of the produce, and

C<sub>mn</sub> = Cost incurred by the *i*th middlemen in the process of buying and selling.

### 2. Marketing Margin

$$1. \text{ Absolute margin} = PR_i - (P_{pi} + C_{mi})$$

$$2. \text{ Per cent margin} = \frac{PR_i - (P_{pi} + C_{mi})}{PR_i} \times 100$$

Where,

PR<sub>i</sub> = Total value of consumer receipts

P<sub>pi</sub> = Total purchase value of goods (purchase price) and

C<sub>mi</sub> = Cost incurred in Marketing

### 4. Producer's share in Consumer's Rupee:

The producer's share in consumer's rupee is an assessment of the relative bargaining position in the market. It also reflects producers' access and integration with the market.

$$Ps = \frac{PF}{PC} \times 100$$

Where,

PS = Producer's share in Consumer's Rupee

PF = Price of the produce received by the farmer

PC = price of the produce paid by the consumer

**5. Price spread:** The difference between the price paid by consumers and the net price received by the producer for an equivalent quantity of farm produce. Its expressed as percentage of consumer prices.

$$Price\ spread = \frac{(consumer\ price - net\ price\ of\ producer)}{consumer\ price} \times 100$$

**6. Marketing Efficiency:**

It is the ratio of output of marketing system (Value Added) to input used in marketing system

$$Marketing\ Efficiency = \frac{Consumer\ price}{Total\ marketing\ Cost + marketing\ margin}$$

**7. Results and Discussion**

The Farmers sell their spices product to FPO at the rate of garam masala (₹29814.40), red chili (₹9674.42), coriander (₹8843.32) and turmeric (₹6639.25) per quintal respectively. Some increase in the price is observed when FPO takes it to processing unit as marketing cost per quintal of garam masala (₹830.55), turmeric (₹188.95), red chili (₹169.91) and coriander (₹159.89) is levied by FPO respectively. Before processing the spices by FPO, cleaning, sifting, drying, processing and packaging are done in different quantities, which cost per quintal in garam masala (₹3716.81), red chili (₹1463.46), coriander (₹1363.78) and turmeric (₹1228.20). FPOs has been earn profit margin 7.5 per cent per quintal on spices.

Table 1: Market margin, cost, Price Spread, Marketing Efficiency in different spices marketing

Particulars	Turmeric	Coriander	Red Chili	Garam masala
<b>i) Producer's sale price</b>				
a) Purchase price	6639.25 (71.22)	8843.32 (74.08)	9674.42 (74.37)	29814.4 (76.13)
b) Marketing costs	188.95 (2.03)	159.89 (1.34)	169.91 (1.31)	830.55 (2.12)
<b>ii) Processing at FPOs Unit</b>				
a) Purchase price	6828.2 (73.25)	9003.21 (75.42)	9844.33 (75.67)	30644.95 (78.25)
b) Marketing costs	1228.2 (13.18)	1363.78 (11.42)	1463.46 (11.25)	3716.81 (9.49)
c) Margin	512.11 (5.49)	675.24 (5.66)	738.32 (5.68)	2298.37 (5.87)
<b>iii) Wholesale price</b>				
a) Purchase price	8568.51 (91.92)	11042.23 (92.5)	12046.12 (92.6)	36660.14 (93.61)
b) Marketing costs	137.39 (1.47)	134.88 (1.13)	133.57 (1.03)	151.81 (0.39)
c) Margin	299.89 (3.22)	386.48 (3.24)	421.61 (3.24)	1283.1 (3.28)
<b>iv) Retailer</b>				
a) Purchase price	9005.8 (96.61)	11563.59 (96.87)	12601.3 (96.87)	38095.05 (97.27)

b) Marketing costs	91.12 (0.98)	85.07 (0.71)	92.53 (0.71)	116.99 (0.3)	
c) Margin	225.15 (2.42)	289.09 (2.42)	315.03 (2.42)	952.38 (2.43)	
<b>v) Consumer purchase price (Rs/q)</b>	9322.07 (100)	11937.75 (100)	13008.86 (100)	39164.42 (100)	
<b>vi) Financial Statement of different spices</b>					
Cost of marketing	1645.66	1743.62	1859.47	4816.17	
Marketing margin	Absolute margin	1037.16	1350.81	1474.97	4533.85
	Percent margin	11.13	11.32	11.34	11.58
Producer share in consumer's rupee	71.22	74.08	74.37	76.13	
Price spread	28.78	25.92	25.63	23.87	
Marketing Efficiency	3.47	3.86	3.90	4.19	

Figure in parenthesis show in (%) of the percentage total

The maximum profit is obtained by FPO in garam masala (₹2298.37), red chili(₹738.32), Coriander(₹675.24)and lowest profit per quintal inturmeric(₹512.11); these spices are sold by FPO to the wholesalers at the price of garammasala (₹36660.14), Red chili(₹12046.12), coriander(₹11042.23) and turmeric(₹8568.51)respectively. The costs per quintal are imposed by the wholesalers on garam masala(₹151.81), turmeric(₹139.39), coriander(₹134.88) and chili(₹133.57) respectively. Wholesaler earn margin (3.5%) on garam masala (₹1283.10), red chili (₹421.61), coriander (₹386.48) and turmeric (₹299.89) per quintal respectively.

Spices are sold by wholesalers to retailer at the price of garam masala (₹38095.05), Red chili (₹12601.3), coriander (₹11563.59) and turmeric (₹9005.8) respectively. The costs per quintal are imposed by the wholesalers on garam masala (₹116.99), chili (₹92.53) turmeric (₹91.12) and coriander (₹85.07) respectively. Retailer earn margin (2.5%) on garam masala (₹952.38), red chili (₹315.03), coriander (₹289.09) and turmeric (₹225.15) per quintal respectively.

We show the overall financial statement of the spices to discuss about cost of marketing, market margin absolute and percent, producers share in consumer rupees, price spread and marketing efficiency per quintal quantity of spices purchase row material from farmer field to till retailer's sale out

The marketing cost is high on garam masala (4816.17), red chili (1859.47), coriander (1743.62) & turmeric (1645.66) Rs per quintal and absolute market margin on garam masala(4533.85), Redchili (1474.97), coriander (1350.81) and turmeric (1037.16) Rs quintal respectively. Producer share in consumer's rupees 71.22 to 76.13 per cent in spices and price spread in turmeric (28.78%), coriander (25.92%), red chili (25.63%) and garammasala

(23.87%) per cent while the Marketing Efficiency has been varied from 3.47 to 4.19 respectively.

Marketing efficiency is intended to maximize the use of input-output ratios, namely reducing input costs without reducing consumer satisfaction with goods or services. The ability to deliver results from producer farmers to consumers at the cheapest cost - cheap and able to provide a fair share of the overall price paid by the last consumer to all involved is a requirement to measure marketing efficiency (Gracia et al, 2019).

### **8. Conclusion and Suggestions**

The Maximum marketing cost and margin is observed in garam masala (₹4816.17), red chili (₹1859.47), coriander (₹1743.62) and turmeric (₹1645.66). The maximum producer share is found in Garam Masala (76.13%), red chili (74.37%), Coriander (74.08%) and turmeric (71.22%) processing per quintal respectively. Price spreading has been observed in spice processing varies from 23.87- 28.78 per cent. Therefore, cultivating coriander and Garam masala by the farmers and not selling the product in the local market and selling it by processing it through Farmer Producer Organization will be more profitable for the farmers.

### **COMPETING INTERESTS DISCLAIMER:**

Authors have declared that they have no known competing financial interests OR non-financial interests OR personal relationships that could have appeared to influence the work reported in this paper.

### **Reference:**

- Agarwal, N. L., 1998. Costs Margin and Price spread in Marketing of Spices crops in Rajasthan," NiyamitMandi, 8 (2) June-July, pp. 13-16.
- Barret, C.B. 2008. Smallholder market participation: Concepts and evidence from Eastern and South Africa. Food Policy. 33(4): 299-317.
- ChinteyMriduPavan (2017) production and marketing of turmeric in assam, International Education & Research Journal, Vol. 3(5) 2454-9916.
- Fisher, E. and Qaim, M. 2012. Linking smallholders to markets: Determinants and impact of farmer's collective action in Kenya. World Development. 40(6): 1255-1268.

- Gracia Sarah, TariganKelin, Ayu Sri Fajar(2019) Market Efficiency and Income Level of Red Chili Farmers who use the Auction Market in Siborong-BorongSubdistrict, North Tapanuli Regency, North Sumatra, *Journal of Agriculture and Veterinary Science*, V. 12(1) 28-33
- JaiswalRashmi, Chandrakar MR, Gauraha A.K., SahuYogesh and SahuTeekendra (2021), An economic analysis of production, processing and marketing of turmeric: A case study of Sambhav farmer producer organization, Raigarh district of Chhattisgarh, *The Pharma Innovation Journal*; SP-10(8): 865-869
- Key, N., Sadoulet, E., and de Januvry, A. (2000). Transaction costs and agricultural household supply response. *American Journal of Agricultural Economics* 82(2): 245-259
- Nasution A H, Hanter and RahmanP(2021), Marketing efficiency of red chili pepper in North Sumatera Province, *International Conference on Agriculture, Earth and Environmental Science*, 10.1088/1755-1315/782/2/022029.
- Patil M.R., Borse M.K., Patil Sunil D. and Kamble Poonam (2009) Economic aspects of production, processing and marketing of turmeric in western Maharashtra, Vol. 5 (1), 60-63
- Verma V. K. and Jheeba S. S.(2016) Marketing cost and price spread of coriander in Kota district of Rajasthan,*International J. Seed Spices* 6(1) 59-65.
- Verma, V. K., Meena, V., Kuamr, P., and Kumawat, R. C. 2013. Production and MarketingofCumin in Jodhpur district of Rajasthan; An economic Analysis. *Agri. Econo. Res. Rev.*, 26 (2)287-292.
- Vignesh C. B. & Deepa R. (2018) Supply Chain Analysis of Coriander Leaves in Coimbatore, *Global Journal of Management and Business Research: GInterdisciplinary*,V. 18 (1) 0975-5853.