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## The marketing pattern and constraints faced by farmers in marketing of green pea in Patan block of Jabalpur district in Madhya Pradesh

**Aradhana Singh Rajpoot, Deepak Pal, Neha Dwivedi and Laveena Sharma**

### Abstract

Pea is an important rabi pulse crop of India and is known as; Mattar (Hindi, Nepali), Field pea, split pea, Garden pea, Seed pea, shelling pea, Combining pea, Forage or Fodder pea, Dry pea, Feed pea, Vining pea (English). Pea was among the first crop cultivated by man which is highly productive, grown for food forage and vegetable. The study area is confined to Jabalpur district and it is one of the important peas growing district in Madhya Pradesh. The present study is based on following objective: to recognize the various marketing channels involved in pea marketing and their respective share. The share of producer in marketing cost was appreciably higher in the channel – I followed by channel-II and channel -III. Extension of marketing functions tends to decline the producer's share in the consumer paid price. Regulated market or amendment in marketing practices should be done which unnecessarily spend the gap between producer's price and price paid by ultimate consumer. Market intermediaries reap more profit in indirect marketing channel.

**Keywords:** Constraints faced, farmers, marketing, green pea

### Introduction

Green pea (*Pisum sativum* L.) belongs to the family Leguminosae is a cool- season vegetable crop, and is planted in the winter. Pea is an important rabi pulse crop of India and is known as; Mattar (Hindi, Nepali), Field pea, split pea, Garden pea, Seed pea, shelling pea, Combining pea, Forage or Fodder pea, Dry pea, Feed pea, Vining pea (English). Pea was among the first crop cultivated by man, which is highly productive, grown for food forage and vegetable. There are two types of grown pea in India, the garden pea or table pea (*Pisum sativum* var. hortense) is a garden colored, wrinkled seeded sweet in taste, harvested in an immature condition as cash crop, used for table and canning purpose. Another type of pea is grain type used for pulse and popularly known as field pea (*Pisum sativum* var. arvense). The seeds are round or little angular, hard and whitish in colour. The plants are very hardy and tolerant to drought and frost. The sweet pea is another type of pea which has ornamental properties. The plants are tall, twining and bear very fragrant flowers. The major green pea producing countries in the, world; China, India, UK, USA, and Egypt (Source; Vegetable Statistics, 2011 IIVR). Green pea is cultivated in the area of 370000 hectares with the production of 3571000 tones and productivity 10 t/ha in 2011(Vegetable Statistics, 2011). The major green pea producing states in India; Uttar Pradesh, Madhya Pradesh, Jharkhand, Himachal Pradesh and Punjab (Horticulture Statistics, 2014). Green pea is cultivated in the area of 57802 hectares with the production of 5.809 lakh tones and productivity 10.05 metric tonnes/ha in 2014-15. Madhya Pradesh is the second largest producer of peas and accounts for 12.3% of total production of peas in the country (NHM, 2015). State produces about 0.47 Mt of peas from an area of 0.06 m. ha. having productivity of 8.4 MT/ha (NHM, 2015). The main production areas in MP are Jabalpur & Tikamgarh (NHM, 2005). Major pea growing belts in the state are Ujjain, Shahjapur, Jabalpur, Dewas, Gwalior, Sagar, Vidisha and Morena (NHM 2015).

### Research methodology

The primary data were collected by personal interview survey method. A questionnaire schedule was made as per objectives stated for the purpose of data collection and each of the selected farmers was approached personally.

The relevant information was gathered through pre-tested interview schedule, and then the data were tabulated in the light of stated 8 objectives. The study period pertains to the agricultural years 2016-17. The study area is confined to Jabalpur district and it is one of the important peas growing district in Madhya Pradesh. The district comprises of 7 development blocks via – Jabalpur, Patan, Kundam, Panagar, Majholi, Shahpura and Sihora. Out of them Patan block was selected purposively for study which covers highest area under pea and investigator is well acquainted with the area. After selection of village, a list of green pea growers was prepared and further categorized according to their size of holding and grouped into Small (1.0 to 2.0 ha) Medium (2.01 to 4.0 ha) and Large (above 4.01 ha). From each size group of holding, 20 farmers were selected randomly. Thus total 60 farmers were considered for detail investigation to fulfill the stated objectives

**Marketing Cost**

Marketing cost is the actual expenses incurred in bringing the goods and services from the producer to the consumer.

$$MC = Cf + Cm1 + Cm2 + \dots + Cmi$$

Where,

MC = Total Marketing Cost

Cf = Cost paid by the producers from the time the produce leaves the farm till he sells it, and

Cmi = Cost incurred by the ith middleman in the process of buying and Selling of the product.

**Marketing margin of a middleman**

Absolute margin of ith middleman (Am<sub>i</sub>):  $Am_i = P_{ri} - (P_{pi} + C_{mi})$

Percentage margin of ith middleman (Pm<sub>i</sub>) =  $\frac{P_{ri} - (P_{pi} + C_{mi})}{P_{ri}} \times 100$

Mark-up of ith middleman (M<sub>i</sub>):  $M_i = \frac{P_{ri} - (P_{pi} + C_{mi})}{P_{pi}} \times 100$

Where,

P<sub>ri</sub> = Total value of receipt per unit (sale price)

P<sub>pi</sub> = Purchase value of goods per unit (Purchase price)

C<sub>mi</sub> = Cost incurred on marketing per unit

**Price spread**

This is the difference between price paid by the consumer and price received by the producer for an equivalent quantity of farm produce.

Price spread = Consumer Price – Producer Price

**Producer’s share in consumer rupee**

It is the price received by the farmer expressed as a percentage of the retail price. It has been calculated by using following formula

$$P_S = \frac{P_F}{P_R} \times 100$$

Where,

P<sub>F</sub> = Producer’s price

P<sub>R</sub> = Consumer’s retail price

P<sub>S</sub> = Producer’s share in the consumer rupee.

**Marketing Efficiency (ME In %)**

$$ME = (V/I - 1)$$

Where,

V = Value of goods sold (consumer’s price)

I = Total marketing cost + margins

The higher the ratio, more will be marketing efficiency and vice versa.

**Different marketing channel of green pea**

The producer– sellers and the village merchant play an important role in marketing of produce. The important assembling centers are Jabalpur Krishi Upaj Mandi. Producers also sell the produce in the villages which are purchased by village merchant and dispatched to the assembling market.

**Main marketing channel of green pea**

Marketing channel were observed in the study area as following

**Channel I** Producer – Consumer

**Channel II** Producer – Wholesaler – Consumer

**Channel III** Producer – Wholesaler – Retailer – Consumer

**Results**

**Marketing cost, margin and price spread under selected channels.**

**Table 1:** Marketing channels adopted by selected respondents

Channel –I	Producer –Consumer
Channel –II	Producer – Wholesaler – Consumer
Channel –III	Producer – Wholesaler – Retailer – Consumer

Table.1 shows that, the channel – I was the simplest marketing channel having no involvement of market intermediaries in the trading of green pea marketing as interaction was directly made between producer and ultimate consumer. It was results minimum cost in marketing of green pea incurred on producer. The share of producer in consumer’s paid price was higher as approaching nearly 96.64%.

**Table 2:** Average marketing costs & price spread of green pea under Channel - I: Producer – Consumer

S. No.	Market Functionaries	Amount (Rs. /q)
1.	Marketing cost at producer’s level	
	Packing charges	25
	Transportation charges	30
	Loading & unloading charges	15
	Sub Total	70
	Producer’s net price	2015
	Producer’s sale price / Consumer’s paid price	2085
2.	Producer’s share in consumer’s rupee (%)	96.64 %
3.	Price Spread	3.36%

Table 2. It is clear that the involvement of wholesaler between producer and ultimate consumers denoted by channel - II indicate that beside the relevant cost incurred by producer the substantive cost and margins incurred in the part of wholesaler in one side reduced the share of producer 92.86%

in ultimate consumer's paid price but given no relief in the part of ultimate consumer because the reduced share of

producer ultimately grown in the hand of wholesaler resulting the expansion in paid price of consumer.

**Table 3:** Average marketing costs & price spread of Green pea Under Channel - II: Producer – Wholesaler – Consumer

S. No.	Market functionaries	Amount (Rs. /q)
1.	Marketing cost Producer's level	
	Packing charges	25
	Transportation charges	30
	Loading & unloading charges	15
	Sub Total	70
2.	Cost incurred by Wholesaler's	
	Transportation charges	25
	Loading & unloading charges	10
	Shop rent charges	5
	Sub Total	40
	Wholesaler's margin	45
	Wholesaler's sale price/Consumer's paid Price	2170
3.	Producer's share in consumer rupee (%)	92.86%
4.	Price Spread	7.14%

Table 3. shows that, the in channel – III between producer and ultimate consumer there was an involvement of wholesaler and retailer. The function of wholesaler and retailer which plays the part in searching and creation of demand of consumer charge their margin and cost incurred on various activities rendered by them. Due to these functions and involvement of marketing cost and returns margins expanded the difference in price received by producer and price paid by ultimate consumer. Thus, resulted in the decrease of producer

share up to 88.38% in consumer's paid price.

On the basis of foregoing discussion of marketing cost and margins conclusion is that as the marketing functionaries reduced the share of the producer in consumer paid price on one side and on the other size increased the consumer's paid price indicate that share of producer price tends to decline as per increase in the number of marketing functionaries and compelled the consumers to pay higher prices for the same quantity of green pea without any relief.

**Table 4:** Average marketing costs & price spread of green pea under Channel –III: Producer– Wholesaler– Retailer – Consumer

S. No.	Market functionaries	Amount (Rs. /q)
1.	Marketing cost Producer's level	
	Packing charges	25
	Transportation charges	30
	Loading & unloading charges	15
	Sub total	70
	Producer's net price	2015
	Producer's sale price / Wholesaler's paid price	2085
2.	Cost incurred by Wholesaler's	
	Packing charges	25
	Loading & unloading charges	10
	Shop rent charges	5
	Sub Total	40
	Wholesaler's margin	45
	Wholesaler's sale price/Retailer's paid price	2170
3.	Costs incurred by Retailer's	
	Transportation charges	15
	Loadin L Loading & unloading charges	5
	Shop rent charges	3
	Polythene bag charges	7
	Sub total	30
	Retailer's margin	75
	Retailer's sale price/Consumer's paid price	2280
	Producer's share in consumer rupee (%)	88.38%
	Price Spread	12.76%

Table 4. clearly shows that, on the comparative statement based on the observation of channel I, II, and III on a common platform indicates that when was no involvement of market functionaries in the trading of green pea producer get higher share approaching nearly 96.64% consumer's paid price on one side and provided a chief in the part of ultimate consumer who secured the same quantity at lesser price (Rs. 2085) contrast to that involvement of wholesaler in channel - II not

only decreased the share of producer in consumer's paid price but also increased that price of same quantity of green pea as paid by ultimate consumer (Rs. 2170) in this intercourse of trading the wholesaler charged 2.07% margin beside the cost incurred by him ( 1.85%). In channel - III the involvement of wholesaler and retailer further expended per unit price of green pea as a result of charging of their margins and actual cost incurred in the trading of this commodity. Here on one

side the share of producer in consumer's paid price tend to decline up to 88.38% and reverse to that expanded the consumer's paid price up to Rs. 2280.

On the basis of above comparative statement conclusion is drawn that when there is involvement of higher number of marketing functionaries in the dealing of green pea marketing

tend to decrease the producer's share in ultimate consumer's paid price one side and forced the ultimate consumers to pay higher price for the same quantity of green pea as a consequence of incurring of various costs and margins recovered by market functionaries for their rendered services in the trading of this commodity.

**Table 5:** Percentage share of different marketing agencies in pea marketing (%).

S. No.	Particulars	Channel – I	Channel –II	Channel-III
1.	Producer's share	96.64	92.86	88.38
2.	Producer's cost	3.36	3.22	3.07
3.	Wholesaler's shares	-	96.08	91.45
4.	Wholesaler's cost	-	1.85	1.75
5.	Wholesaler's margin	-	2.07	2.20
6.	Retailer's share	-	-	95.40
7.	Retailer's cost	-	-	1.31
8.	Retailer's margin	-	-	3.29
Total (Rs. /q)		2085 (100)	2170 (100)	2280 (100)

Table 5. shows that on the comparative picture of absolute margin, percentage margin and mark-up of middleman. It revealed in case of wholesaler, the absolute margin (Ami) was Rs. 45 and 50 per quintal whereas the percentage margin

(Pmi) was 1.84 % and 2.29 % . and mark-up (Mi) was 1.91% and 2.39% in channel – II and channel – III respectively. channel – III retailer absolute margin was Rs. 75, percentage margin 3.28 % and mark-up 3.44 %.

**Table 6:** Average marketing margin under different marketing channels of green pea

S. No	Particulars	Channel – I			Channel – II			Channel III		
		Ami (Rs)	Pmi ( % )	Mi ( %)	Ami (Rs)	Pmi ( % )	Mi ( %)	Ami (Rs)	Pmi ( % )	Mi ( %)
1.	Wholesaler's	-	-	-	45	1.84	1.91	50	2.29	2.39
2.	Retailer's	-	-	-	-	-	-	75	3.28	3.44

Table 6. indicates that marketing efficiency was highest in channel – I (28.78 %) followed by channel - II (13.00 %) and channel –III (7.60 %). It shows that marketing efficiency was in inverse relation with the total costs and margins. As the number of intermediaries increased, costs and margins

increased and inverse was the marketing efficiency. Thus, it can be stated that from the point of view of marketing efficiency, that green pea growers have to pay more attention on Channel – I i.e., Producer's – Consumer's to meet out the maximum profit.

**Table 7:** Marketing efficiency under different marketing channels Green pea (shepherd approach)

Channel	Quantity Sold(q)	Consumer Price (Rs.)	Total marketing cost & margin (Rs.)	Marketing Efficiency
I	731 (11.28)	2085	70	28.78
II	1511 (23.32)	2170	155	13.00
III	4238 (64.40)	2280	265	7.60

Table7. depicts the observed constraints by selected respondents in the marketing of green pea, price fluctuation, lack of price information, lack of storage facilities, higher marketing charges, lack of marketing news, lack of

transportation, problems in taking loan, malpractices adopted by traders, lack of good infrastructure and other severe problems ranked in the descending order viewed seriously which may be verified the given information furnished.

**Table 8:** Constraints in the marketing of green pea faced by Selected respondent

S. No.	Constraints relating to	Size group				Ranking
		Small (N= 20)	Medium (N= 20)	Large (N= 20)	Total (N= 60)	
1.	Price fluctuation	18 (90)	16 (80)	17 (85)	51 (85)	I
2.	Lack of price information	18 (90)	13 (65)	16 (80)	47 (78.33)	II
3.	Lack of storage facilities	19 (95)	11 (55)	16 (80)	46 (76.66)	III
4.	Higher marketing charges	16 (80)	14 (70)	13 (65)	43 (71.66)	IV
5.	Lack of marketing news	17 (85)	13 (65)	10 (50)	40 (66.66)	V
6.	Lack of transportation	14 (70)	12 (60)	10 (50)	36 (60.00)	VI

7.	Problems in taking loan	09 (45)	12 (60)	14 (70)	35 (58.33)	VII
8.	Malpractices adopted by traders	09 (45)	06 (30)	05 (25)	20 (33.33)	VIII
9.	Lack of good infrastructure	07 (35)	08 (40)	04 (20)	19 (31.66)	IX

### Conclusion

The share of producer in marketing cost was appreciably higher in the channel – I followed by channel-II and channel - III. Extension of marketing functions tends to decline the producer's share in the consumer paid price. Regulated market or amendment in marketing practices should be done which unnecessarily spend the gap between producer's price and price paid by ultimate consumer. Market intermediaries reap more profit in indirect marketing channel.

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