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Research Paper

Assessment of Marketing Channels and Price Spread of Brinjal in the State of Uttar Pradesh

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ABSTRACT

The efficient marketing assists in increasing the farmer's share in consumer rupees, moreover, high percentage of it denoted high profit to the farmers. In present study the price spread, marketing channels, marketing efficiency, market margin and marketing cost have been analysed for the brinjal in Mau district of Uttar Pradesh. The multi-stage stratified random sampling were used during collection of data from respondents. Three marketing channels *i.e.,* (i) Producer-Consumer; (ii) Producer-Retailer-Consumer; and (iii) Producer- Commission Agent-cum-Wholesaler-Retailer-Consumer were identified in handling of brinjal in the study area. The results of study revealed that the marketing efficiency was 123.10 per cent for marketing channel-I, 150.30 per cent for marketing channel-II and 314.50 per cent for channel -III, whereas, the per quintal price spread for marketing channel-I, II and III was found to be ₹ 123.10, ₹ 150.30 and ₹ 314.50, respectively. The farmer's shares in consumer rupee for marketing channel-I, II and III was found to be 86.70 per cent, 85.77 per cent and 66.10 per cent, respectively. The marketing channel-I was identified as most efficient for handling of brinjal in the study area.

HIGHLIGHTS

- Most of the produce was sold through marketing channel-I.
- Marketing efficiency was observed to be highest marketing channel-I.
- The price spread was observed to be maximum for marketing channel-III.

Keywords: Marketing efficiency, marketing channel and price spread

Brinjal is an important vegetable crop among all vegetables. It is major source of livelihood for a significant proportion of famers in Utter Pradesh. Eggplant aubergine, sometimes known as Guinea squash, is a popular vegetable crop grown in the tropics, subtropics, and warm temperate regions. It thrives in low to mid elevations year-round on sandy loam soil with a pH of 5.5 to 6.5 (Mondal *et al.* 2019). India is one of the largest vegetable producers in world. Total area, production and productivity of brinjal were found to be 730.40 ('000 ha), 12800.80 ('000 MT) and 17.5 (MT/ha), respectively during the year 2017-18. In India, the state of West Bengal having first rank in area as well as production which contributed to be 163.15 ('000 ha) and 3027.75 ('000 MT), respectively whereas, the state of Uttar Pradesh was contributed area and production to be 8.01 ('000 ha) and 275.40 ('000 MT), respectively during the year 2017-18 (GoI, 2018). The vegetable production is much important until it successfully reached to consumers, therefore, it is necessary to

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kept in mind the production as well as marketing of the crop should be efficient. Generally, most of vegetables are perishable in nature and it requires dispose of produce just after harvesting as soon as possible. However, some of the vegetables can be stored for some days after harvesting (Imtiyaz and Soni, 2014). The India farmers are grown a vast variety of vegetables, which are an important part of the Indian diet. Vegetables are short-season crops which produced a high production per unit area, cost-effective, and provide nutritional security (Mishra *et al.* 2014). In the locality of Uttar Pradesh, the producer share in consumer rupees are very less reason behind it, unawareness of price and market arrivals of brinjal. The marketing stakeholder are takes advantage of it and purchase the vegetable from growers at low price and sells it at higher price after grading. In study area, most of farmers were marginal and grown the brinjal at small scale resulted deprived from internal economies of scale. Most of brinjal growers were used to sale their produce directly to consumer in open market but some of the famers were sold their produce to wholesalers and speculators. Therefore, the present study had been carried out on estimation of price spread and marketing channels of brinjal growers.

RESEARCH METHODOLOGY

Sampling Design

Present study was completely based on primary data of the study area. The study was resulted during Rabi season of the year 2019-20. Multi-stage Stratified Random Sampling was considered for the selection of study area. The state, district and block were selected purposively, whereas, village was selected randomly from the study area. Total 47 marketing stakeholders of Kataghara Sankar mandi were interviewed through pre-tested schedule during data collection.

Tools and Techniques

Averages

The simplest and important measure of average which has been used into statistical analysis was the weighted average. The formula used to estimate the average is:

$$W.A. = \frac{\sum WiXi}{\sum Wi}$$

Where,

W.A. = Weighted average

Xi = Variables

Wi = Weights of *X*

Price spread

Price spread is the difference between price paid by consumers and net price received by producer for an equivalent quantity of farm produce. It expressed as percentage of consumers price.

Price Spread =

$$\frac{\left(\begin{array}{c}\text{Consumers retail price} - \\ \text{Net price recieved by producers}\end{array}\right)}{\text{Consumers retail price}} \times 100$$

Marketing Channels

In the study area, it was found that marketing of brinjal mainly carried out through following channels:

- Channel-I: Producer-Consumer;
- Channel-II: Producer-Retailer-Consumer; and
- Channel-III: Producer- Commission Agent-cum-Wholesaler-Retailer-Consumer.

Marketing Efficiency

$$\text{Marketing efficiency} = \frac{\text{Marketing output}}{\text{Marketing input}} \times 100$$

RESULTS AND DISCUSSION

Marketing of brinjal

India is an agrarian country feels various climatic conditions permitted huge food stuff production. Merely production cannot complete the work of economic development it requires efficient marketing too. In most of the cases, marketable surplus may be less than the marketed surplus because of hording, a part of the commodity in anticipation of rising price. This was attributed mainly due to highly perishable nature of vegetables, lack of appropriate storage

facilities and wide price fluctuations in the market. In marketing of brinjal, different functionaries like growers, commission agent-cum- wholesaler and retailers performed various functions before reaching the brinjal in the hand of final consume. Marketing of brinjal in study area was studied and presented in following heads:

Disposal pattern of brinjal

The overall production was to be 2220.78 q out of which, quantity utilized on farm (39.75 q) and marketable surplus was observed to be 98.31 per cent. Out of total quantity consumed on farm, maximum (31.88 q) quantity was lost due to physical and biological factors, followed by gift given to friends and relatives (4.06 q), family consumption (2.55 q) and for seed production (1.44 q), respectively (table 1).

In case of brinjal, out of total production of (2220.78 q), the quantity utilized on farm was observed to be 1.68 per cent (39.75 q) and the marketable surplus was 98.31 per cent.

Marketing Channels of Brinjal

In the study area, different channels were prevalent for marketing of brinjal. Following channels were practiced by the farmers:

- Channel-I: Producer-Consumer;
- Channel-II: Producer-Retailer-Consumer; and
- Channel-III: Producer- Commission Agent-cum-Wholesaler-Retailer-Consumer.

In case of marginal farms, the maximum quantity (3182.30 q) of brinjal was sold through channel-I followed by channel-II (963.86 q) and channel-III (658.75 q), respectively. It was 66.23 per cent, 20.06 per cent and 13.71 per cent, respectively in channel I, II and III. On small farms, maximum quantity of brinjal was sold through channel-I (421.55 q) followed by channel-II (359.47q) and channel-III (175.52 q), respectively and medium farms, maximum quantity of brinjal was sold through channel-III (319.24 q) followed by channel-I (258.64 q) and channel-II (203.03 q), respectively. It is also revealed that the maximum quantity of produce was sold through marketing channel-I.

Table 1: Per Farm disposal pattern of brinjal in the study area (In figure N=Number of respondents)

Sl. No.	Particulars	Brinjal (Qt.)			Overall Average (Qt.)
		Marginal (N = 75)	Small (N = 14)	Medium (N = 11)	
1	Production	4896 (100)	973.70 (100)	792.66 (100)	2220.78 (100)
2	Quantity consumed on farm (a + b + c + d)	90.57 (1.85)	17.02 (1.75)	11.65 (1.47)	39.75 (1.68)
(a)	Family consumption	5.87 (0.12)	0.84 (0.08)	0.95 (0.12)	2.55 (0.33)
(b)	Gift to relative and friends	9.30 (0.19)	1.07 (0.11)	1.82 (0.23)	4.06 (0.17)
(c)	Losses (physical/ biological)	71.97 (1.47)	14.41 (1.48)	9.27 (1.17)	31.88 (1.36)
(d)	Seed	2.93 (0.06)	0.68 (0.07)	0.71 (0.09)	1.44 (0.07)
6	Marketable surplus	4804.93 (98.14)	956.56 (98.24)	780.92 (98.52)	2180.80 (98.31)

Source: *Author's computation) (Figures in parentheses indicate percentages.*

Table 2: Sale of the brinjal through different marketing channels in the study area

Marketing Channels	Marginal		Small		Medium		Overall Average	
	Q	N	Q	N	Q	N	Q	N
Channel-I	3182.30 (66.23)	47 (62.30)	421.55 (44.07)	6 (45.10)	258.64 (33.12)	4 (34.22)	1029.55 (47.21)	57
Channel-II	963.86 (20.06)	16 (21.11)	359.47 (37.58)	5 (35)	203.03 (26)	3 (24.83)	610.62 (28.00)	24
Channel-III	658.75 (13.71)	12 (16.59)	175.52 (18.35)	3 (17.90)	319.24 (40.88)	4 (40.95)	539.31 (24.73)	19
Total	4804.93 (100)	75 (100)	956.56 (100)	14 (100)	780.92 (100)	11 (100)	2180.80 (100)	100

Source: *Author's Computation) (Q = Quantity in Qt., N = Number of respondents.*

Table 4: Price spread in marketing of brinjal

Sl. No.	Item of the cost	Channel - I		Channel - II		Channel - III	
		(₹/Q)	% share in consumer Rupees	(₹/ Q)	% share in consumer Rupees	(₹/ Q)	% share in consumer Rupees
1	Net price received by brinjal growers	802.47	86.70	803.26	76.04	664.60	54.03
2	Marketing cost incurred by brinjal growers	123.10	13.29	122.31	11.58	262.97	21.38
3	Price received by brinjal growers	925.57	100	925.57	87.62	925.57	75.24
4	Price paid by commission agent cum wholesalers	—	—	—	—	925.57	75.24
5	Marketing cost incurred by commission agent cum wholesalers	—	—	—	—	22.63	1.84
6	Margin of commission agent cum wholesalers	—	—	—	—	64.45	5.24
7	Price paid by retailers	—	—	925.57	87.62	1047.18	85.13
8	Marketing cost incurred by retailers	—	—	27.99	2.65	28.90	2.35
9	Margin of retailer	—	—	140.49	13.30	178.36	14.50
10	Price paid by consumers	925.57	100	1056.33	100	1230.10	100
	Total marketing cost	123.10	13.29	150.30	14.22	314.50	25.56
	Total marketing margin	—		140.49	13.30	242.81	19.74
	Price spread	123.10	13.29	150.30	14.22	314.50	25.56
	Marketing efficiency (%)	751.88		702.81		391.12	

Source: *Author's computation; Figure in parentheses indicates the percentage.*

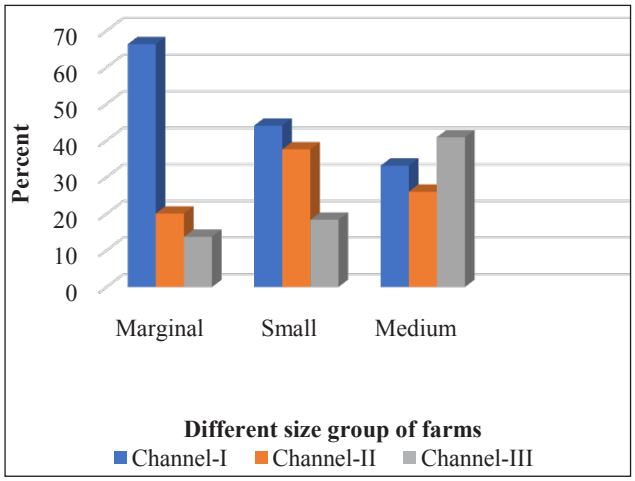

Fig. 1: Sale of brinjal through different marketing channels

Cost of Marketing

Per quintal marketing costs incurred by brinjal growers was high *i.e.,* ₹ 314.50 in channel-III (Producer- Commission Agent-cum-Wholesaler-Retailer-Consumer) followed by ₹ 150.30 in channel-II (Producer-Retailer-Consumer) and ₹ 123.10 in channel-I (Producer-Consumer).

Price Spread

Price spread consists of expenses incurred, losses in transit and margin of different intermediaries which ultimately determine the overall effectiveness of marketing system. It is calculated for brinjal and presented in table 4.

In case of brinjal, price paid by the consumers was highest in channel-III (₹ 1230.10) followed by channel-II (₹ 1056.33) and channel-I (₹ 925.57), whereas, producer's share in consumer's rupees is highest in channel-I, 86.70 per cent followed by channel-II 85.77 per cent and channel-III, 66.10 per cent. Thus, we can conclude that channels involving more intermediaries reduce the producer's share in consumer's rupees. Producer's share in consumer rupee decreases with increase in number of intermediaries.

Total marketing costs included expenses and margins incurred by producers and different intermediaries to bring the produce up to consumer. The total marketing cost was observed maximum in channel-III (₹ 314.50) followed by channel-II (₹ 150.30) and in channel-I (₹ 123.10), the marketing

cost was also highest with a greater number of intermediaries. Further, total marketing margin of channel-II and channel-III was ₹ 140.49 and ₹ 242.81, respectively. It was also observed that marketing efficiency was highest in channel-I (751.88 %) followed by channel-II (702.81%) and channel-III (391.12%), respectively.

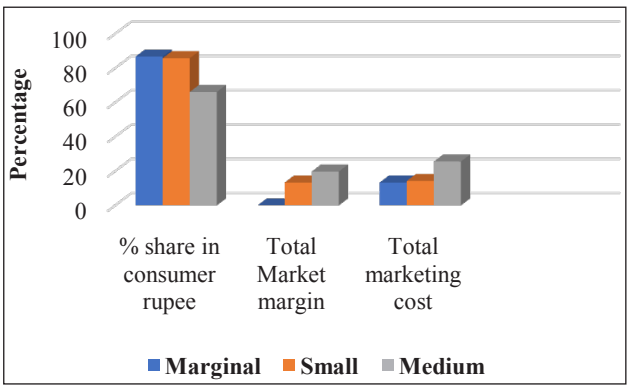

Fig. 2: Price spread in the marketing of brinjal

It was observed that the channel-I followed by channel-II and channel-III most efficient for marketing of brinjal in the study area.

CONCLUSION AND POLICY IMPERATIVES

The present study has been concluded that the medium farmers having high per ha production of brinjal than the marginal and small category of farmers. Most of farmers were used to sell their produce directly to the consumer but maximum quantity of produce was sold through marketing channel-III. The marketed surplus was having maximum at medium category of farmers due to possession of high capital stoke created high risk bearing ability, whereas, minimum at small category of farmers. The cost of marketing and market margin was maximum demanded by marketing channel-III due to existence more numbers of stakeholders, whereas, it was minimum in marketing channel – I because of selling of produce directly to consumers by producers. Even price spread was estimated maximum for marketing channel – III and minimum by Marketing channel-I. The marketing efficiency was experienced maximum by Channel-I and minimum experienced by marketing channel-III. The brinjal growers had not sufficient capital for investment, even government was provided loan through KCC but criteria of deciding amount of loan was based upon size of holding. That is why, marginal farmers were not getting sufficient loan for investment through Kisan Credit Card (KCC) since government should formulate other scheme to overcome this problem.

REFERENCES

Amarnath, J.S. and Vendhan, K.T. 2017. An economic analysis of cut flower marketing in Tamil Nadu. *Econ. Aff.*, **62**(4): 621-631.

Arinloye, D.A.A. 2015. Marketing channel selection by smallholders. *J. Food Prod. Mark.*, **21**(4): 337-357.

Dwibedy, S.K. 2013. Estimation of price spread and marketing efficiency of brinjal in different marketing channels: a case study. *Ind. J. Mark.*, **43**(2): 26-34.

Goering, G.E. 2012. Corporate social responsibility and marketing channel coordination. *Resea. Econ.*, **66**(2): 142-148.

GoI. 2018. Horticultural statistics at a glance 2018. Horticulture Statistics Division, Department of Agriculture, Cooperation & Farmers' Welfare, Government of India.

Imtiyaz, H. and Soni, P. 2014. Marketing supply management of brinjal: challenges and opportunities. *Int. J. Manag.*, **5**(2): 116-125.

Jorwar, R.M., Ulemale, D.H. and Sarap, S.M. 2017. Economics of production and marketing of tomato in Amaravati district. *Int. Resea. J. Agricul. Econ. Statistics*, **8**(1): 56-59.

Kumar, G., Singh, H.L. and Singh, A.K. 2015. Study on price spread and market margin of wheat in western Uttar Pradesh. *Econ. Aff.*, **60**(1):71-74.

Kumar, S., Jain, S., Shakya, M.K. and Kushwaha, S. 2015. Study of different marketing channels, marketing efficiency and constraints in vegetable marketing in Varanasi district of Uttar Pradesh. *Ind. J. Sales and Mark.*, **5**(5): 35-44.

Mishra, S., Singh, R. and Singh, O.P. 2014. Economic analysis of marketing of major vegetables in Varanasi district of Uttar Pradesh, India. *Eco. Aff.*, **59**(4): 649-652.

Mondal, M., Ali, H. and Bera, B.K. 2019. An Economic analysis of brinjal (*Solanum melongena* L.) cultivation in Nadia district of West Bengal, India. *Int. J. Curr. Microbiol. App. Sci.*, **8**(11): 210-216.

Mukherjee, D.N. and Vasudev, N. 2014. Economic analysis of marketing performances in the *Rythu bazars* (direct marketing) in Hyderabad city. *Eco. Aff.*, **59**(4): 621-628.

Singh, S.B., Roy, A., Choudhury, A., Singh, N.V. and Singh, S.P. 2015. Production and marketing of vegetables in Manipur some policy issues. *Annals of Horti.*, **8**(1): 38-45.

Zihan, W. 2012. Analysis on the marketing strategy of channel. *Adv. in Soc. Sci., Educ. and Humanities Res.*, **543**(1): 855-858.