A study on the marketing efficiency of Button Mushroom in Solan district of Himachal Pradesh, India

ABSTRACT

The study was conducted on marketing of button mushroom in Solan district of Himachal Pradesh. Multi stage sampling technique was used for the selection of primary and secondary market functionaries. Market functionaries were taken into study in order to collect the information related to marketing cost, marketing margin, price spread, marketing efficiency and producer's share in consumer's rupee. It was also used to identify the different marketing channels used in marketing of mushroom. All the detail of marketing process was figured out by using the data collected from the respondents and the market middlemen. Three categories of market channel were involved, channel I was producer to consumer, channel II was producer to retailer to wholesaler and channel III was producer to wholesaler to retailer to consumer. In all the three groups channel I was more profitable.

Keywords: Price spread, marketing cost, marketing channel, marketing margin and producer's share in consumer's rupee.

1. Introduction

Mushrooms basically comes under family *Agaricaceae*. They are grown on dead and decaying organic materials. They have absence of chlorophyll. They are excellent source of minerals, vitamins, proteins carbohydrates and folic acids. It can be directly consumed or can be canned and taken as soups, sauces and other food products. The protein present in mushrooms have 60-70% digestibility and also contains antiviral, antifungal and antibacterial properties.

China is the leading producer of mushroom in the world with about 41.127 million tonnes production and India ranks sixth in terms of mushroom production with 0.243 million tonnes production (FAOSTAT 2023).

In India, Bihar has maximum of mushroom production with 28.00 tonnes production. Himachal Pradesh produces 14.80 tonnes mushroom and ranks eight in the country (ICAR DMR).

2. Materials and Methods

For the selection of districts, blocks, panchayats and respondents the multi stage sampling technique was used. By using random sampling technique total 73 farmers were selected from Solan block of Solan district. Based on the production process the respondents were divided into three categories small farmers with the production of <1 quintal, medium farmers with the production of 1-3 quintals and large farmers with the production of >3 quintals. For the data and collection of information the personal questioning was done with the farmers and their families and for secondary data different sources were mushroom markets and Directorate of Mushroom Research.

From primary and secondary market 10% market functionaries were randomly selected. Solan sabzi mandi, Shimla sabzi mandi and Chandigarh fruits and vegetables market were selected purposively for the study.

Table 1 Different market functionaries

S. No.	Market (Primary & Secondary)	Market Functionaries	Total
1	Solan sabzi mandi	Producer Retailer	25 15
2	Shimla sabzi mandi	Producer Retailer	5 11

		Wholesaler	9
3	Chandigarh fruits & vegetables market	Retailer Wholesaler	3 5
Total			73

Table 1 revealed that data of market functionaries was collected to find out the marketing cost and other marketing charges in all the three marketing channels.

3. Analytical Tools

Different analytical techniques were used to fulfill the specific objective of the study. Arithmetic mean, weighted mean different formulae were applied to calculate various marketing concepts such as marketing margin, marketing efficiency, marketing cost, price spread and producer's share in consumer's rupee.

Acharya's approach was used to calculate the efficiency of marketing. It's the most commonly used method of calculating marketing efficiency. It measures the performance of the market.

$MME = PF \div (MC + MM)$

Where;

MME = Modified measure of Marketing Efficiency

MC = Total marketing costs

MM = Net marketing margin

PF = Prices received by the farmer

4. Results and Discussion

In Solan district the following three channels were recognized for the mushroom marketing.

Channel I: Producer → Consumer

Channel II: Producer → Retailer → Consumer

Channel III: Producer → Wholesaler → Retailer → Consumer

Table 2 Detailed distribution of mushrooms by way of different channels

S. No.	Channels	Number of Intermediaries involved	Number of Farmers sold through this Channel	Percentage
1	Channel I	Producer → Consumer	40	54.79
2	Channel II	Producer → Village Merchant/Retailer → Consumer	25	34.24
3	Channel III	Producer → Commission Agent/Wholesaler → Retailer → Consumer	8	10.97
Total			73	100

From table 2 it was clear that maximum of growers sold their produce through channel I. Through channel III only very few respondents sold their produce. Less profit was earned by producers in channel II and III due to the existence of middlemen's or intermediates. The channel chosen by growers also vary from season to season.

Table 3. Marketing cost obtained in Channel I (per quintal)

S. No.	Particulars	Rs/qtl
1	**Cost incurred by the producer**	
I	Packing cost	120 (12)
II	Packing Material Cost	150 (15)
III	Loading & unloading	150 (15)
IV	Transportation Cost	250 (25)
V	Labor Cost	150 (15)
VI	Miscellaneous	100 (10)
VII	Weighing Charges	80 (8)
2	**Total cost (I-VII)**	**1000**

Table 3 identifies that marketing cost obtained in channel I was Rs. 1000. Among all the costs incurred the maximum cost was of transportation cost (Rs. 250) due to perishable nature of

mushroom, it needs proper handling. The minimum cost was found to be of weighing charges (Rs. 80).

Table 4. Marketing cost obtained in Channel II (per quintal)

S. No.	Particulars	Rs/Qtl
1	**Producer/seller**	
I	Labor Charges	150 (7.31)
II	Packing Charges	120 (5.85)
III	Transportation	250 (12.19)
IV	Loading & unloading	150 (7.31)
V	Other Expenses	80 (3.90)
	Sub Total Cost (I-V)	750 (36.58)
2	**Retailer**	
I	Weighing Charges	50 (2.43)
II	Labor Charges	150 (7.31)
III	Transportation Cost	200 (9.75)
IV	Loading & unloading	300 (14.63)
V	Spoilage	400 (19.51)
VI	Other Expenses	200 (9.75)
	Sub Total Cost (I-VI)	1300 (63.41)
	Total Marketing Cost (Producer + Retailer)	2050

From table 4 it was revealed that total cost of marketing was determined to be Rs. 2050 per quintal of mushroom. In channel II the total marketing cost obtained by producer was Rs. 750 per

quintal out of which the highest cost obtained was by transportation (Rs. 250) and minimum cost was obtained by other expenses (Rs. 80).

The total cost experienced by retailer in channel II was Rs. 1300 per quintal out which larger cost was recognized by spoilage (Rs. 300) and least cost was experienced by weighing charges (Rs. 50).

Table 5. Marketing cost obtained in Channel III (per quintal)

S. No.	Particulars	Rs/qtl
1	**Producer/Seller**	
	Sub Total	0 (0)
2	**Wholesaler**	
I	Shop Rent	100 (8.19)
II	Labor Salary	50 (4.09)
III	Market Charges	100 (8.19)
IV	Spoilage	70 (5.73)
V	Other Expenses	40 (3.27)
VI	Loading & unloading	40 (3.27)
VII	Transportation	100 (8.19)
	Sub Total	500 (40.98)
3	**Retailer**	
I	Shop Rent	100 (8.19)
II	Grading	120 (9.83)
III	Labor salary	50 (4.09)
IV	Transportation	100 (8.19)
V	Packing Material	110 (9.01)

VI	Loading & unloading	100 (8.19)
VII	Spoilage	100 (8.19)
VIII	Other Expenses	40 (3.27)
	Sub Total (I-VIII)	720 (59.01)
4	Total Marketing Cost	1220

Table 5 analyzed that total cultivation cost incurred in channel III was Rs. 1220 per quintal of mushroom. In this channel the cost obtained by wholesaler was Rs. 500 in which highest cost was incurred by shop rent, market charges and transportation charges which was Rs. 100 each. The cost experienced by retailer was Rs. 720 in which maximum cost was obtained by grading which was Rs. 120.

Table 6. Measures of profitability in different marketing channels

S. No.	Particulars	Channel I	Channel II	Channel III
1	Net price received by mushroom grower	9000	8590	7500
2	Marketing cost incurred by mushroom grower	1000	750	0
3	Price paid by wholesaler	-	-	
4	Market cost incurred by wholesaler	-	7500	500
5	Net margin of wholesaler	-	-	1500
6	Price paid by retailer	-	9340	9500
7	Marketing cost incurred by retailer	-	1300	720
8	Net margin of retailer	-	1360	1780
9	Price paid by consumer	10000	12000	12000
10	Total marketing cost	1000	2050	1220
11	Total marketing margin	0	1360	3280
12	Total price spread	1000	3410	4500
13	Producer's share in consumer's rupees (%)	90%	71.58%	62.5%
14	Total marketing efficiency	9.0	2.51	1.66

From the table 6 it is clear that net price received by mushroom grower per quintal was maximum in channel I (Rs. 9000), followed by channel II (Rs. 8590) and minimum was in channel III (7500). Channel I earned the maximum profit in channel I which was 90%, followed by channel II which was 71.58% and channel III earned the least profit which was 62.5%. Marketing efficiency was

greater in channel I (9.0), followed by channel II (2.51) and channel III has the less marketing efficiency (1.66).

5. Conclusion

From the study conducted in Solan block of Solan district states that 54.79% of respondents sell the mushrooms by channel I which was maximum among all the three given channels. Marketing cost was highest in channel II due to the presence of market intermediaries. The study also revealed that maximum profit was earned by channel III which was 90% because of no intermediaries were present in this channel. Total price spread was greater in channel III (Rs. 4500), followed by channel II (Rs. 3410) and minimum was in case of channel I (Rs. 1000).

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