

A STUDY ON PRICE SPREAD OF JOWAR IN KARNATAKA

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ABSTRACT

An attempt to estimate the costs and margins in marketing of jowar in two important jowar markets of Karnataka at Bijapur and Bagalkot revealed variations in the costs incurred by the farmers between different size-group of farmers in and between the selected markets. The commission charged by commission agents however, was found to constitute a major proportion of the total costs incurred by the farmers irrespective of the size group to which they belonged or the market which they selected for the sale of their products. The transportation cost and storage cost constituted other important marketing costs. Other expenses like packing, loading and unloading, weighment charges were found to be of minor importance. The total costs incurred by commission agents were of little significance. But, the average cost incurred by wholesalers was on an average Rs. 12.40 per quintal in Bijapur market and Rs. 11.87 in Bagalkot market. A major proportion of the cost incurred by them was for transport. The difference between the price charged for the consumer and the price received by the grower varied between different size group of farmers. The producer received about three-fourths of the actual price paid by the ultimate consumer.

KEY WORDS : Marketing, costs and margins, Jowar sales.

With the gradual displacement of subsistence farming by commercialised agriculture, marketing of agricultural commodities has assumed great importance in recent years. For the farmer, marketing of his produce has become as important as the adoption of farm practices for improving crop yields from agriculture.

Various studies on marketing of agricultural produce have clearly shown the existence of a considerable margin between the price paid by the consumer and the ultimate price received by the grower of the produce (Kahlon and Panday, 1969; Singh, 1975; Deshpande *et al.*, 1979; Muradia, 1979; Pandey *et al.*, 1979; Raju and Oppen, 1979; Sinha *et al.*, 1979.) Unless this margin can be cut down, the lot of the farmer cannot be improved. From this point of view, it is necessary to cut down marketing costs incurred at various

stages and the profit margins annexed by various intermediaries, sometimes for no worthwhile service rendered by them. The heavy marketing margins have an adverse impact on the incentive of the farmer to increase output.

In case of jowar, the staple-food of the people of Karnataka, the foregoing considerations assume special relevance and significance. The purpose of the present study is to estimate the marketing costs and margins in the selected markets for jowar. The data used for the study pertain to the year 1983-84.

MATERIALS AND METHODS

The two most important agricultural produce markets operating in Bijapur district, one of the major jowar growing districts of Karnataka, namely Bijapur and Bagalkot were selected for the study. Jowar is the dominant crop

Table 1. Marketing costs incurred by the Producer-Sellers of Jowar in Bijapur and Bagalkot Markets (Rs./q). 1981-82.

S. No.	PARTICULARS	BIJAPUR			BAGALKOT		
		SMALL	MEDIUM	LARGE	SMALL	MEDIUM	LARGE
1.	Commission	4.92 (53.25)	4.92 (45.68)	4.81 (40.45)	4.88 (45.66)	5.08 (50.10)	4.95 (43.77)
2.	Packing	0.10 (1.08)	0.11 (1.02)	0.09 (0.75)	0.11 (1.03)	0.08 (0.79)	0.05 (0.44)
3.	Transportation	2.22 (24.03)	2.24 (20.80)	2.40 (20.19)	2.00 (18.67)	2.12 (20.91)	3.08 (27.23)
4.	Loading & Unloading	0.54 (5.84)	0.50 (4.64)	0.52 (4.37)	0.50 (4.67)	0.53 (5.23)	0.51 (4.51)
5.	Weightment	0.05 (0.54)	0.05 (0.46)	0.05 (0.42)	0.05 (0.47)	0.05 (0.49)	0.05 (0.44)
6.	Storage	1.30 (14.07)	2.44 (22.66)	3.79 (31.88)	3.10 (28.94)	2.09 (20.61)	2.51 (22.19)
7.	Miscellaneous	0.11 (1.19)	0.51 (4.74)	0.23 (1.93)	0.07 (0.65)	0.19 (1.87)	0.16 (1.41)
8.	Total	9.24 (100)	10.77 (100)	11.89 (100)	10.71 (100)	10.14 (100)	11.31 (100)

Figures in parentheses indicate the percentages to the total cost.

Table 2. Costs incurred by different Market Intermediaries in Bijapur and Bagalkot Markets (Rs./q).

PARTICULARS	BIJAPUR			BAGALKOT		
	Commission Agents	Wholesalers	Retailers	Commission Agents	Wholesalers	Retailers
1. Labour charges	0.37	0.29	0.21	0.31	0.26	0.47
2. Shop Rent	0.13	0.23	0.22	0.14	0.14	0.39
3. Licence Fee	0.04	0.02	0.02	0.04	0.02	0.04
4. Tax	0.26	0.60	0.85	0.49	0.84	0.59
5. Maintenance Cost	0.04	0.05	0.25	0.07	0.12	0.24
6. Transportation Cost	-	11.11	1.70	-	10.47	1.30
7. Wastage Cost	-	0.11	0.22	-	0.02	0.72
TOTAL	0.84	12.40	3.47	1.05	11.87	3.83

of the Bijapur district and a major proportion of its output comes for sale in these two markets. For the purpose of selection of farmers, a stratified random sampling technique was adopted. The Bijapur taluk formed the major hinterland for Bijapur market as also the Bagalkot taluk for Bagalkot market. Since the number of villages in Bijapur and Bagalkot taluks was more or less equal, five villages were selected from each of these two taluks at random within a radius of 20-25 km. from the respective marketing centres.

In the second stage, the distribution of farm holdings in these selected villages was collected from the respective village talatles. The farm holdings in each selected village were subdivided into three size groups - small (below 10 acres), medium (10-20 acres) and large (above 20 acres). A proportionate number of farmers were selected at random from each size group to form a sample of 120 farmers. The break down of the sample was 64 small, 32 medium and 24 large farmers.

The first set of primary data relating to costs of marketing of jowar, prices realised and profits obtained were collected personally from the sample farmers with the help of pre-tested questionnaires and the second set of primary data on commission charges, marketing costs, establishment costs, marketing margins etc., were collected by personally interviewing the market intermediaries with the help of pre-tested questionnaire.

The two different modes of sale were identified in the process of selling jowar, each constituting a specific channel. (a) Sale through direct negotiations between the producer - sellers and buyers. (Channel-I) (producer - seller - village merchants - commission agents

- wholesaler - retailer and b) Sale through open auction (channel - II), comprising sales through commission agents to the retailers wherein the individual lots were being sold through open bidding.

RESULTS AND DISCUSSION

Costs Incurred by the Producer Sellers

The various costs incurred by different groups of farmers in selling their produce in the two markets are presented in Table 1 along with their relative proportion to the total costs. The commission charged by the commission agents constituted the most important item of cost in both the markets and for all size groups of producer - sellers without any exception whatsoever. This item of cost, as a percentage of the total costs, varied between 40.45 per cent for the large farmers in Bijapur market to 53.25 per cent for small farmers in the same market, clearly indicating its adverse impact on small farmers in this market. In Bagalkot market, the medium farmers had to pay the maximum amount of commission (50.10 per cent).

On testing the mean difference in commission charges paid by different size group of farmers, it was found significant only between small and large farmers in Bijapur market. In Bagalkot market, no significant difference was observed between any size group of farmers. On testing, the difference in commission charges paid by the same size group of farmers in the two markets, significant difference was observed only with the respect to small farmers.

Next to commission charges, transportation costs assumed an important position in the marketing cost

Table 3. Price Spread in Bijapur and Bagalkot Markets (Rs./q)

PARTICULARS	BIJAPUR			BAGALKOT		
	SMALL	MEDIUM	LARGE	SMALL	MEDIUM	LARGE
1. Producers net price	150.00	152.05	149.78	156.80	154.16	153.79
2. Cost of producers	9.24	10.77	11.89	10.71	10.14	11.31
3. Cost of commission agents	0.84	0.84	0.84	1.05	1.05	1.05
4. Cost of wholesalers	12.40	12.40	12.40	11.87	11.87	11.87
5. Cost of retailers	3.47	3.47	3.47	3.83	3.83	3.83
6. Profit of village merchants	7.92	4.34	5.47	3.44	5.65	4.85
7. Profit of wholesalers	7.60	7.60	7.60	7.13	7.13	7.13
8. Profit of retailers	8.53	8.53	8.53	8.17	8.17	8.17
9. Price to consumer	200.00	200.00	200.00	202.00	202.00	202.00
10. Price spread	50.00	47.95	50.22	46.20	47.84	48.21
Producer's share in consumer's Rupee (percentage)	75.00	76.02	74.89	77.63	76.31	76.08
Price - Spread as a proportion of consumer's price (percentage)	25.00	23.98	25.11	22.37	23.69	23.92

Table 4. Marketing costs and margins under different channels

	CHANNEL-I			CHANNEL-II			Difference of Channel-I over Channel-II		
	FARMERS			FARMERS			FARMERS		
	SMALL	MEDIUM	LARGE	SMALL	MEDIUM	LARGE	SMALL	MEDIUM	LARGE
BIJAPUR MARKET									
Total Marketing	24.69	26.68	27.79	25.20	26.12	25.71	-0.51	0.56	2.08
Cost	(50.66)	(56.58)	(56.26)	(62.48)	(61.85)	(61.47)			
Profit of the Intermediaries	24.05	20.47	21.60	15.13	16.11	16.11	8.92	4.36	5.49
	(49.34)	(43.42)	(43.74)	(37.52)	(35.15)	(38.59)			
Total Marketing Margin	48.74	47.15	49.39	40.33	42.23	41.82	8.41	4.92	7.57
	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)			
BAGALKOT MARKET									
Total Marketing	25.73	24.63	23.55	25.58	23.22	24.38	0.15	1.41	-0.83
Cost	(57.86)	(54.04)	(53.90)	(62.58)	(60.28)	(61.94)			
Profit of the Intermediaries	18.74	29.95	20.15	15.30	15.30	15.30	3.44	5.65	4.85
	(43.14)	(45.96)	(46.10)	(37.42)	(39.72)	(38.06)			
Total Marketing Margin	44.47	45.58	43.70	40.85	38.52	39.68	3.59	7.06	4.02
	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)	(100.00)			

Figures in parenthesis indicate percentage to the total marketing margin.

structure. In Bijapur market, the proportion of transport charges in the total cost was highest in case of small farmers (24.03 percent). This proportion was found to be the highest (27.23 per cent) for the large farmers in Bagalkot market.

The aggregate cost per quintal worked out at Rs. 9.24, 10.77 and Rs. 11.89 for the small, medium and large farmers respectively in Bijapur market. The corresponding figures for Bagalkot market were Rs. 10.71, Rs. 10.14 and Rs. 11.31.

Tests of significance carried out for the mean levels of transportation costs revealed that the difference in transportation cost paid was found significant between small and medium farmers and small and large farmers in Bijapur market and small and medium farmers in Bagalkot market. On testing the difference in transportation cost in different markets by the same size group of farmers, significant difference was observed only with respect to small farmers.

Cost incurred by the various intermediaries are shown in Table 2. The total costs incurred by the commission agents, wholesaler and retailers in Bijapur market were Rs. 0.80, Rs. 12.40 and Rs. 3.47, respectively. The corresponding figures for Bagalkot market were Rs. 1.05, Rs. 11.87 and Rs. 3.83. The total costs incurred by the intermediaries thus worked out Rs. 16.71 per quintal for Bijapur market and Rs. 16.75 per quintal for Bagalkot market.

A major portion of the costs incurred by the intermediaries was related to transport costs. In Bijapur market, the transport cost constituted 66.49 per cent of the total costs incurred by all the

intermediaries. In Bagalkot, this percentage was worked out to be 62.51.

Other costs of minor importance were related to labour charges, shop rent, license fee, maintenance expenses, wastages and taxes. These constituted 33.51 per cent of the total costs incurred by the intermediaries in Bijapur market and 37.49 per cent in Bagalkot market.

Marketing margin or Price spread*

The details relating to different costs incurred in the marketing of jowar at the various stages along with the profits earned by different intermediaries are shown in Table 3 along with the final prices charged for the consumer. Irrespective of the nature of the market or the size groups of the producer - sellers from whom the product was acquired for onward transmission to the consumers, the retail price was found to be more or less identical in both the markets. The difference between this price and the total costs plus profits of different intermediaries (including taxes paid) constituted the gross price received by the producer - sellers in the selected markets. The net prices of the producer - sellers were obtained by deducting the producer - seller's costs from the gross prices received by them.

The net price received varied not only between markets but also between different size groups of producer - sellers. Practically the same differences were observed in the marketing margin across markets and farmers size groups. The net prices received per quintal was found to be higher in Bagalkot market as compared to that received in Bijapur market for each size group of producer - seller.

* The difference between the net price received by the producers and the price paid by the consumers constituted the price spread or the marketing margin.

The difference in the net price received by the large farmers was found to be particularly high. Between different size groups of farmers, the medium farmers received higher prices in Bijapur market compared to small and large farmers. By contrast, the small farmers received higher prices than the large and medium farmers in Bagalkot market.

The marketing margin was found to be higher in Bijapur market as compared to that in the Bagalkot for each size group of farmers. This was mainly due to higher profit margins annexed by the intermediaries in Bijapur market as compared to the corresponding margins of profit earned by them in Bagalkot market. In the case of medium and large farmers, the costs incurred at the various stages were found to be higher in Bijapur market as compared to those incurred in Bagalkot market.

The absolute price spread in Bijapur market was Rs 50.00, Rs. 47.50 and Rs. 50.22 for the small, medium and large farmers respectively. In Bagalkot market, the corresponding figures worked out to Rs. 46.20, Rs. 47.84 and Rs. 42.27. It can be said that the producer - sellers in Bijapur market received a little less than three-fourths of the total price paid by the consumer. In Bagalkot market, the share of the producer - seller in the consumer's rupee was little more than three-fourths.

Marketing costs and marketing margins under different channels

The marketing margins under different channels in both the selected markets along with their breakdown into cost profit constituents are shown in Table 4. It would be seen from the table that Channel I accounted for higher marketing margins compared to

Channel II in both Bijapur and Bagalkot markets and for all size groups of farms. The higher marketing margins in Channel I were mainly due to higher profits intercepted by the various market functionaries in Channel I compared to Channel II. Thus, for the small farmers in Bijapur market, the difference in profit per quintal annexed by the intermediaries was Rs. 8.92. For the medium and large farmers, the corresponding amounts were Rs. 4.36 and Rs. 5.49 respectively. In Bagalkot, the corresponding profit differentials for the small, medium and large farmers were Rs. 3.44, Rs. 5.65 and Rs. 4.85 respectively.

For small farmer marketing through channel I, the proportions of the marketing costs and profits of the intermediaries in the total marketing margin in Bijapur market were found to be more or less identical - 50.66 per cent and 49.34 per cent. In the case of Bagalkot market, by contrast, the marketing costs for this group constituted 58 per cent of the marketing margin. In the case of medium and large farmers, the proportion of marketing cost in Bijapur market was higher as compared to that in Bagalkot, while the proportion of profit margins was found to be lower. Under Channel II, no significant difference was observed in the proportion marketing costs and profits of the intermediaries for the small farmers between the two markets and for the medium farmers, the proportion of marketing costs were slightly higher in Bijapur market than in Bagalkot market. The same trend was observed in the case of large farmers.

The marketing margins have been observed to be in the neighbourhood of 25 per cent of the retail price. To some extent these high margins are the result of higher marketing costs.

From the policy point of view, therefore, while efforts at cost reduction would be welcome, specially in the area of transport charges and agency

commission, much greater efforts would be desirable to cut down profit margins through statutory measures.

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RESEARCH NOTE

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PCB 138 VARIETY OF PEARL MILLET FOR PUNJAB

Composite varieties are popular in pearl millet though their yield potential is less than hybrids because they are similar to local cultivars, broad based and heterogeneous which allows them to withstand climatic vagaries and disease attacks much better than hybrids. They have wider adaptation and simple seed production procedures than hybrids. In the dry farming conditions, a variety must have short duration so as to evade drought and utilize available soil moisture and have terminal stress resistance along with good fodder yield. This type of variety is suitable in the rainfed kandi area of Hoshiarpur district in the Punjab. The variety PCB 138 met these criteria and thus was released for general cultivation, particularly in the rainfed areas of Punjab,

by the Punjab State Variety Approval Committee in June, 1989.

The variety PCB 138 tested as PICB 1, ICTP 8203 and MP 124 in various trials, is basically ICTP 8203 variety of ICRISAT developed from random mating of five S₂ progenies of a Togo land race and was allowed to stabilize in Punjab conditions.

PCB 138 was tested in Punjab in multilocation trials from 1985 to 1988 against state check varieties PSB 8 and PCB 15. Its comparison was especially made with an early variety PSB 8 which was intended to be replaced. The variety PCB 138 gave an average yield of 2082 kg/ha in 16 research trials at different locations during 1985 to 1988 which was 20% higher than PSB 8 and