

Full Length Research Paper

Economics of banana marketing in Jalgaon district: An analysis across alternative channels

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Banana (*Musa paradisiaca*) is a popular and important commercial fruit crop grown in tropical and sub tropical part of world. Jalgaon district in the state of Maharashtra, India is one of the largest producers of banana which contributes about 44% of banana production in the state. Hence, Jalgaon district was selected for this study. The cultivation of banana is mainly concentrated in Raver and Chopda sub regions (tahasils) in Jalgaon district. Therefore these tahasils having highest acreage under banana plantations were selected purposively for the present investigation. The banana fruits fetches price depending on size in the market. The size of fruit is measured in terms of weight of bunches and number of hands per bunch at the farm level. The bunches are graded according to weight grade A (above 15 kg), grade B (13 - 15 kg), grade C (11 - 13 kg), grade D (9 - 11 kg) and grade E (below 9 kg). Marketing management of banana is an important activity along with production. This study will be useful to banana growers in knowing the importance of various management practices, specific markets, their marketing cost and price spread in marketing channels preferred by them.

Key words: Banana marketing, Jalgaon district, alternative channels, *Musa paradisiaca*.

INTRODUCTION

Banana belongs to the family Musaceae is one of the oldest fruit known to mankind. The total production of banana in Jalgaon district is 235728.00 metric tonnes and productivity is 56.80 tonnes per hectare. Jalgaon district contributes 44% of total production of banana in the state. The area under banana cultivation is rapidly increasing in Jalgaon district. Marketing management of banana is also an important activity along with production. This study will be useful to banana growers in knowing the importance of various management practices, specific markets, their marketing cost and price spread in marketing channels preferred by them. Thus it will be useful for them in deciding marketing place, marketing channel which give better price and returns to their produce with minimizing cost by under taking various marketing practices.

Jadhav et al. (1997) studied price spread in marketing of fruits and vegetables. They observed that for both fruits and vegetables commission agents selling to retailers through wholesaler and directly selling to retailers from two channels of marketing. The cost and margins of marketing of fruits together were Rs. 295.60 for papaya and Rs. 521.65 for sapota. The producer's share in consumer's rupee was 56.08% for papaya and 61.38% for sapota. The major problems were costly packing and

transport, faulty method of sale, high rate of commission, lack of storage facility, etc.

Selection of appropriate market and marketing channel is an important aspect of banana marketing management which decides the price of the produce. The available information indicated that major share of producers income goes to marketing costs and to intermediaries in banana trade resulting low share to producers in consumer's rupee.

Marketing management of banana is an important activity along with production. Today even though our production is increasing but the quality is declining. Banana growers are not only lacking in adopting and implementing the improved production and market technologies but also modifying it as per their needs of their own conditions.

There was a need to study the marketing management of banana with specific objectives such as to study marketing cost structure of banana and estimation of the factors influencing net price realized by the banana growers.

MATERIALS AND METHODS

Jalgaon district in the state of Maharashtra, India is one of the largest producers of banana which contributes about 44% of banana

production in the state. Hence, Jalgaon district was selected purposively. The cultivation of banana is mainly concentrated in Raver and Chopda sub regions (tahasils) in Jalgaon district therefore these tahasils having highest acreage under banana plantations were selected purposively for the present investigation. On the basis of highest acreage under banana plantations total six villages that is, three villages from each of Raver and Chopda tahasils were selected purposively. The selected villages from Raver tahasil were Waghoda, Chinawal, Nimbhora and from Chopda tahasil were Gorgaonle, Mangrul, Machla.

From each selected villages fifteen samples of banana growers, on the basis of actual area under banana plantations that is five from each category of small (upto 1.00 ha), medium (1.01 - 2.00 ha) and large size farm (above 2.01 ha) were selected by adopting random simple method. Thus in all ninety sample banana growers that is thirty sample banana growers from each of the categories of small, medium and large size groups were considered for the present investigation.

RESULTS AND DISCUSSION

The marketing of banana in Jalgaon district is done through three market agencies viz; co operative fruit sale societies, group sale agencies and private agencies and also through retailers.

Potekar et al. (1992) studied the marketing of banana through co operatives in Basmath taluka of Parbhani district revealed that the purchase of banana was done by the society on weight basis with a standard average weight of banana bunch as 15 kg. The banana growers fetched Rs. 170.00 per quintal for 15 kg bunch.

The banana fruits fetches price depending on size in the market. The size of fruit is measured in terms of weight of bunches and number of hands per bunch at the farm level. The bunches are graded according to weight grade A (above 15 kg), grade B (13 - 15 kg), grade C (11 - 13 kg), grade D (9 -11 kg) and grade E (below 9 kg).

Gajanana and Subrahmanyam (1996) conducted a study on fruit marketing through co operative. A case study of Jalgaon banana indicated that the net price received by the growers was slightly higher in the case of kisan society as compared to the Jalgaon society. Kisan society could take advantages of the price prevailing in the Delhi market though it involved huge transport cost, commission charges, etc. Also Kisan society accepts even the inferior quality (Grade E) produce, it is not so in the Jalgaon society.

The financial analysis indicated that both societies are making profits to the extent of around one per cent of the turnover by keeping the overheads at proportionally low level.

Akbar and Raheman (1991) in his study on marketing on banana by farmers in a selected area of Bangladesh concluded that the largest volume of banana sales, 63% was made at the market place. Price spread and farmers share in consumer's rupee, under three different marketing channels were worked out. The findings indicated that larger the marketing channels, the smaller were farmer's share. The major production and marketing problems were summarized and some remedial measures

were suggested.

The mode of payments adopted by the co operative fruit sale societies selling the produce to the private traders and local traders make the payment to the growers on the basis of average weight of bunches. The growers receive better prices if the average weight of all bunches together is more than 15 kg.

Mali et al. (2000) in their study on economics of production and marketing of banana in Jalgaon district of Western Maharashtra concluded that the per quintal cost of marketing of banana was the highest in case of local traders followed by co operative fruit sale societies who were selling the produce to the private traders. The per quintal cost of marketing was the lowest in case of co operative societies selling the produce in Delhi market.

Marketing channels for banana

Pawar et al. (1990) studied organized and unorganized marketing of banana in Jalgaon district. The study revealed that co operative fruit sale societies assigned specific grades to banana on the basis of the average weight of bunch at the time of harvesting. Producers were paid according to the grades of their produce. The group sale agency and private agency made the payment on the basis of average price received in the market.

Marketing channels are results through which agricultural products move from producer to consumer. It is the chain of intermediaries through whom the products pass from producers to consumer. The length of channel varies from commodity to commodity depending on the quantity to be moved, the form of consumer demand degree of regional specialization in production.

Gadre et al. (1992) in their study on marketing of banana in Jalgaon district identified the following channels.

Channel I = Producer – Co operative fruit sale society – Commission agent – Wholesaler – Retailer – Consumer.
 Channel II = Producer – Group sale agency – Commission agent – Wholesaler – Retailer – Consumer.
 Channel III = Producer – Private agency – Commission agent – Wholesaler – Retailer – Consumer.

The maximum marketing cost of Rs.90.99 per quintal was incurred in Channel III followed by Rs. 84.46 in Channel II and Rs. 82.26 in Channel I. The marketing margin under channel III was found higher than those under Channel II and Channel I. It worked out to Rs. 287.58 and Rs. 282.26 per quintal for channel I, II and III respectively. The producers share in consumer's rupee was estimated 32.57, 32.43 and 31.31% for channel I, II and III respectively.

Jalgaon being specialized in banana production the major bulk of the quantity produced need to be transported to distant market, therefore the study of marketing channels of banana is highly important from the view point of producer's share in consumer's rupee.

Table 1. Channel wise quantity of banana sold by sample farms (qtl/farm).

S/ No.	Channel	Farm size group			Overall
		Small	Medium	Large	
1	I	71.62(22.64)	163.08(21.59)	442.21(26.49)	225.63(24.70)
2	II	98.56(31.14)	242.78(32.14)	563.23(33.75)	301.52(33.00)
3	III	141.76(44.79)	349.42(46.25)	659.53(39.52)	383.57(41.98)
4	IV	4.52(1.43)	0.17(0.02)	4.17(0.24)	2.95(0.32)
	Total	316.46(100.00)	755.45(100.00)	1669.14(100.00)	913.67(100.00)

(Figures in parentheses are percentages to the total)

The following marketing channels have been identified in marketing of banana.

Channel I: Producers - Co operative marketing society - Commission agent-Wholesaler – Retailer - Consumer

Channel II: Producer - Group sale agency -Private trader - Commission agent – Wholesaler - Retailer - Consumer

Channel III: Local traders (Group sale agency) – Wholesaler - Retailer-consumer

Channel IV: Producer – Retailer – Consumer (Table 1).

The highest produce was sold through Channel III (41.98%) followed by Channel II (33.00%) and Channel I (24.70%) at the overall level. Cost of marketing affects the producer's net share in the consumer rupee.

Raju and Venkateswarlu (1989) studied the marketing of banana in Guntur district Andhra Pradesh. They observed that by selling the banana through pre harvest contractors, their margin was found to be highest followed by commission charges and transportation cost. By district sale, charges paid to commission agent ranked the highest of total charges. The producers share in consumer rupee was more in direct sale because of elimination of pre harvest contractors from the trade in direct sale.

An attempt has been made to work out the item wise per quintal cost of marketing and the same is presented in Table 2.

It is revealed from the table that per quintal cost of marketing at the overall level was Rs.132.41. Transport cost at overall 61.49% was highest item followed by 19.84% as commission of wholesaler.

Kale et al. (1992) concluded a study on price spread and marketing margins for high grade banana in Basmath and Nanded talukas, the largest traditionally banana growing tract of Parbhani and Nanded districts of Maharashtra in India. They observed that per quintal and per dozen net price received by the producer was Rs. 184.00 and Rs. 2.45 respectively. The total marketing cost worked out was Rs. 64.50 and Rs. 0.86. Total profit earned by all the intermediaries was turn to Rs. 101.50 and Rs. 1.35, while price spread by the consumer was Rs. 350.00 and Rs. 4.65 per quintal and per dozen respectively, when the sale was carried out through private agents-intermediaries, commission agents-wholesalers-

retailers-consumers, a most common channel.

From Table 3, it is revealed that per quintal cost of marketing was the highest in channel III (Rs. 137.11) as compared to channel II (Rs 132.57) and channel I (Rs. 129.96).

It is revealed that the producers share in consumer's rupee was 48.15% in channel I and 46.78, 45.20 and 70.80% in channel II, III and IV respectively.

Producers share in consumer rupees for overall was 46.41% as shown in Table 4.

Banana after leaving the farm passes through many intermediaries before it reaches the consumers. These intermediaries render some services with a view to earn some profit. The high proportion of profit for these intermediaries is regarded as indication of inefficiency of marketing system.

On whole, it was concluded that producers share in consumers rupee was more in channel IV because there was no intermediaries expect retailers between consumer and producer.

Table 5 revealed that the R^2 value 0.64 which suggest that the seven resource variables included in the price function analysis have jointly explained as much as 64% of the total variation in price received by the banana growers.

The regression coefficient of total quantity sold through (X_1), Grade-I quantity sold (X_3), quantity sold through channel I (X_5) and quality sold by channel II (X_6) have turned to be positive and significant. Out of the above variables, the grade 1st quantity and quantity sold by channel II, was significant at 5% level of significance. The regression coefficient of total quantity sold (X_1) and quantity sold through channel I (X_5) was significant at 10% level of significance, which all indicates that they have positive influence towards net price realized for banana. It can be further showed that as the production increase ultimately the lot of quantity marketed increase. So net price received to produce grade I (X_3) increase in the total produce, the banana grower would get additional premium. As regards the marketing channel I (X_5) and channel II (X_6), it showed that selling of banana through this channel is beneficial and fetches higher price over other channels. As far as place of sale it is showing negative effect on net price received, which indicates that as distance of market increase net price realized by

Table 2. Average per quintal cost of marketing of banana (Rs. /qtl.).

S/No.	Items of cost	Farm size group			Overall
		Small	Medium	Large	
1	Harvesting	0.50(0.39)	0.52(0.39)	0.54(0.39)	0.52(0.39)
2	Weighing	0.48(0.38)	0.50(0.38)	0.53(0.39)	0.50(0.38)
3	Transport upto assembling center	6.01(4.68)	6.57(4.92)	6.84(5.03)	6.47(4.88)
4	Loading and unloading	3.43(2.67)	3.65(2.73)	3.69(2.71)	3.59(2.71)
5	Transport to wholesale market	78.67(61.38)	82.05(61.55)	83.57(61.52)	81.43(61.49)
6	Sundry expenses	3.67(2.61)	3.78(2.83)	3.83(2.81)	3.76(2.83)
7	Commission of wholesaler	25.94(20.24)	26.47(19.85)	26.78(19.71)	26.39(19.93)
8	Hamali	0.8(0.67)	0.91(0.68)	0.96(0.70)	0.91(0.68)
9	Society fee	6.37(4.97)	6.59(4.94)	6.82(5.02)	6.59(4.97)
10	Postage	0.51(0.39)	0.52(0.39)	0.53(0.39)	0.52(0.39)
11	Other expenses	1.71(1.33)	1.72(1.29)	1.73(1.27)	1.72(1.29)
12	Total marketing cost	128.16(100.00)	133.29(100.00)	135.83(100.00)	132.41(100.00)
13	Per dozen marketing cost	2.59	2.67	2.70	2.65

Table 3. Average per quintal channel wise cost of marketing of banana (Rs/qtl).

S/No.	Items of cost	Marketing channel			Overall
		I	II	III	
1	Harvesting	0.49(0.37)	0.52(0.39)	0.56(0.40)	0.52(0.39)
2	Weighing	0.45(0.34)	0.51(0.38)	0.54(0.39)	0.50(0.37)
3	Transport upto assembling center	6.25(4.80)	6.54(4.93)	6.78(4.94)	6.52(4.89)
4	Loading and unloading	3.68(2.83)	3.79(2.85)	3.69(2.69)	3.72(2.79)
5	Transport to wholesale market	80.24(61.74)	81.56(61.52)	84.45(61.59)	82.08(61.61)
6	Sundry expenses	3.54(2.72)	3.42(2.57)	3.27(2.38)	3.41(2.55)
7	Commission of wholesaler	26.34(20.26)	26.64(20.09)	26.62(19.41)	26.63(19.99)
8	Hamali	0.83(0.63)	0.86(0.64)	0.96(0.70)	0.88(0.66)
9	Society fee	5.95(4.57)	6.39(4.82)	7.89(5.75)	6.74(5.05)
10	Postage	0.52(0.40)	0.55(0.41)	0.55(0.40)	0.54(0.40)
11	Other expenses	1.67(1.28)	1.79(1.35)	1.80(1.31)	1.75(1.31)
12	Total marketing cost	129.96(100.00)	132.57(100.00)	137.11(100.00)	133.21(100.00)

Table 4. Price spread of banana for selected sample farms in Jalgaon district.

S/No.	Particulars	Channel I	Channel II	Channel III	Channel IV	Overall
1	Net price realized by farmer	216.54(48.15)	207.45(46.78)	201.78(45.20)	195.89(70.80)	205.41(46.41)
2	Expenses incurred	6.87(1.52)	6.98(1.57)	7.18(1.60)	6.78(2.45)	6.95(1.57)
3	Expenses incurred by co-op. societies/ group sale society/ pvt. Trader	90.12(20.04)	92.09(20.75)	92.54(20.73)	-	91.58(20.69)
4	Expenses incurred by wholesaler	28.16(6.26)	29.24(6.58)	29.69(6.65)	-	29.03(6.56)
5	Wholesaler margin	31.00(6.89)	33.00(7.43)	35.16(7.87)	-	33.05(7.46)
6	Retailers expenses	31.00(6.89)	26.00(5.85)	29.00(6.49)	19.00(6.86)	26.25(5.93)
7	Retailers margin	46.00(10.22)	49.00(11.04)	51.00(11.42)	55.00(19.87)	50.25(11.35)
8	Consumer price	449.69(100.00)	443.76(100.00)	446.35(100.00)	276.67(100.00)	442.52(100.00)
9	Per dozen price	8.98	8.87	8.87	5.57	8.79

Table 5. Factors affected the prices received by the banana growers in Jalgaon district.

S/No.	Particulars	Regression coefficient of variable (N = 90)
1	Constant (a)	195.6785 ^{NS}
2	Total quantity sold (qty) X ₁	0.0129*
3	Distance (km) X ₂	-5.376 ^{NS}
4	Grade -I quantity (qty) X ₃	0.0463**
5	Grade -II quantity (qty) X ₄	- 0.1123 ^{NS}
6	Quantity sold by channel I (qty) X ₅	0.0265*
7	Quantity sold by channel II (qty) X ₆	0.0239**
8	Quantity sold by channel III (qty) X ₇	0.0283 ^{NS}
	R ²	0.6493***

***, **, * indicates 1, 5 and 10% level of significance
NS – Non significant

farmer decreases.

Conclusion

It may be concluded that the producer net share in consumer rupee was 46.41%. The share of wholesaler (7.46%) and retailer (11.35%) were substantially large which affected the producers share in consumer's rupee. There was a big gap between prices paid by the producers. The middleman share can be reduced by eliminating number of intermediaries from marketing channel and bringing the consumer closer to producer. This would also raise the producer share in consumer's rupee.

Singh et al. (1996) in his study on economic analysis of banana in unorganized sector in middle Gujarat indicated that marketing cost was high, particularly the commission of middleman and the value of extra weights which together accounted for about 86% of marketing expenses. The expenses could be minimized or eliminated by effectively implementing the agricultural produce market act for banana.

Total quantity sold, distance of market and quantity sold by grade wise and channel wise, in which quantity sold is the most important factor affecting the net price realized by banana growers. The regression coefficient of total quantity sold, Grade - I quantity sold, quantity sold by channel I showed a positive result.

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