

Original Research Article

Economic Analysis of Marketing Channels and Efficiency of Marketing of Phule Nachani Variety of Finger Millet in Kolhapur

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ABSTRACT

A study was conducted on the economics of marketing channels and efficiency of marketing of finger millet (Ragi) in Kolhapur district of Maharashtra during the period of 2016-17. The sampling design adopted for the investigation was two stage purposive sampling and village as a secondary unit sampling. The simple random method was used to select the appropriate unit of marketing functionaries in different channels. Necessary data were obtained from the sample respondents through personal interview method with the help of pre-tested questionnaire in order to ensure the accuracy of the data. In case of channel-I, after harvesting of the finger millet the producer will sell it to consumer. channel-II was Producer- Wholesaler-Retailer-Consumer for harvested finger millet. The producer share in consumer rupee was 94.66 per cent, 83.77 per cent in channel-I, channel-II respectively. The price spread was highest in the channel-II with Rs. 330.39 per qtls followed by channel-I Rs. 62.35 per qtls. The major problem of high fertilizer cost at overall level 67.47 per cent (rank 1st) of growers was reported followed by non-availability of crop loan in time of sowing was one of the problems, which was reported by 61.36 per cent (rank 2nd) of the growers at overall level.

Keywords

Finger millet,
Producer share in
consumer rupee,
Price spread,
Market channel

Introduction

Finger millet (*Eleusine coracana* L.), is also known as African millet, Ragi (India), Bulo (Uganda), Wimbi (Swahili) and Telebun (Sudan). It is an important cereal crop for subsistence agriculture in the dry areas of Eastern Africa, India and Srilanka. India has been a predominantly agrarian economy and agriculture continues to be main stay of our economy even today. With the globalization the agricultural sector is opened up with the new avenues especially for cereal crops and

millet. India ranks first (19.83 million ha) and Nigeria ranks second in the production (8.03 million ha) under Finger Millet cultivation in India during the year 2014-2015. The production of Finger Millet in India has decreased by 7.98 per cent over a period of time from 1970-71 to 2014-15. In case of productivity, it shows an increasing trend over a period of time from 1970-71 to 2014-15. India's Finger Millet productivity has increased 90.48 per cent as compared to productivity in the year 1970-71. Finger Millet is an important crop providing food,

feed and fodder in the arid and semi-arid tropics of the world. It is a staple food for the rural poor in the Asia and African countries. Finger Millet is often referred to as "coarse grain". Though it is a traditional subsistence crop but now changes its role to commercial or semi-commercial crop. It has also been used in the production of alcohol. The whole plant is used for forage, hay or silage. It is grown as *kharif*, *rabi* and also as summer crop. Finger Millet is used in different ways as human food, fodder, cattle feed and industrial raw materials. The main uses of Finger Millet are for preparing papad, cookies and other preparations.

Objectives

This paper aims to evaluate economic analysis of marketing channels and efficiency of marketing of Phule Nachani variety of finger millet in Kolhapur district

To study the existing marketing system for sale of Finger Millet.

To ascertain the problems in production and marketing of Finger Millet.

Materials and Methods

Kolhapur district is the one of the leading districts growing Finger Millet in Maharashtra. Out of 12 tahsil in Kolhapur district, Radhanagari and Panhala tahsils were purposively selected on the basis area under Finger Millet crop. Three village from each tahsil were selected from these tahsils were selected purposively on highest area under Finger millet crop. Fifteen Finger Millet growers from each village was randomly selected size of 90 growers. To constitute a total sample the list of Finger Millet growers was prepared from each of selected villages, and grouped into three categories on the basis of their area under

Finger Millet viz, small growers (0.01-0.20 ha), medium growers (0.21-0.40 ha) and large growers (0.41 ha and above).

Estimation of marketing cost

It includes the grading and packaging charges comprising the wages paid for labour, packing material cost, transport charges including loading and unloading charges, weighing and commission charges. The cost actually paid by the selected growers was considered for analysis.

Marketing costs

Marketing costs are the actual expenses required in bringing goods and services from producer to consumer. It is the total cost incurred by the different intermediaries in marketing of Finger Millet.

$$C = C_p + C_{m1} + C_{m2} \dots \dots \dots C_{mn}$$

Where,

C = Total Cost of Marketing of commodity

C_p = Cost paid by the producer from the time of Produce leaves the farm till he sells it.

C_{mi} = Cost incurred by ith middleman in the process of buying and selling the product.

Market margin

It refers to the difference between prices paid and prices received by any specific marketing agency such as wholesaler, retailer or combination of marketing agencies.

$$MT = \sum_{i=1}^n (S_i - P_i) / Q_i$$

Where,

MT = Total Market Margin

S_i = Sale value of a product paid by i^{th} firm

P_i =Purchase value of a product paid by i^{th} firm

Q_i =Quantity of product handled by i^{th} firm

Price spread

It refers to the difference between price paid by the consumer and price received by the producer.

Price spread= Producer price –Consumer price

Producer's share in consumer's rupee

It is the ratio of net price received by producer to the price paid by consumer and can be calculated as follows,

Producer's share in consumer's rupee
= $\frac{\text{Net price received by producer}}{\text{Price paid by consumer}} \times 100$

Marketing channels

The path or route followed by the commodity which connects the producer with the final consumer is known as marketing channel.

Market Intermediaries

Market intermediaries are those who are specialized in performing various marketing functions involved in purchase and sale of produce as to move from producer to the consumer.

Commission agent cum wholesaler

He is another intermediary working as commission agent-cum-wholesaler is the

marketing of Finger Millet. He charges a specific rate of commission. He is also known as Dalal.

Retailer

He is trader having owns stall. He is concerned with buying the Produce from wholesalers or producer and sale to consumer.

Problems in production and marketing:

Garrett Ranking Technique

The grower's problem in production and manufacture will be analysed, in term of frequency or percentage (%) and rank order will be given for a particular measure. Garrett's ranking technique will be followed to analyse the constraints of the farmers will be asked to rank the various problems. These orders of merit will be transformed into units of scores by using the following formula.

Position Percent =

$$\frac{100(R_{ij}-0.50)}{N_j}$$

Where,

R_{ij} - Rank given for the i^{th} factor by the j^{th} individual

N_j - Number of factors ranked by the j^{th} individual.

The percent position is converted into scores by referring to the table given by Garrett and Woodworth (1969). Then for each factor the scores of the individual respondents will be added together and divided by the total number of respondents for whom scores will be added. These mean scores for all the factors will be arranged in descending order

and the most influencing factors will be identified through the ranks assigned.

Study area

Kolhapur district is located between 15 43' and 17 17' North latitude and 73 40' and 74 42' East longitude of southern Maharashtra.

The region receives average rainfall 1900 mm. The total numbers of villages are 1196 and towns are 18. The district is consisting of 12 revenue tehsils' namely Shahuwadi, Panahala, Hatkangale, Shirol, Karveer, Gaganbavada, Radhanagri, Kagal, and Bhudhargad.

Results and Discussion

Marketing channels

Marketing channels reveal that how produce passes through different agencies from producer to final consumer. In the study area following prominent channels were observed in the marketing,

Producer-Consumer

Producer- Wholesaler-Retailer-Consumer

Production, retention and marketable surplus of Finger Millet

The Finger Millet sold through different channels were calculated with respect to small, medium and large size groups of farmers and presented in Table 1. Production of small size group was 5.53 quintals per farm, 10.21 quintals and 14.48 quintals per farm of medium and large size groups respectively. At the overall level was 10.07 quintals per farm. It was observed that retention for home consumption and other used was 3.39, 3.64 and 4.04 quintals on small, medium and large size groups

respectively and at overall level was 3.67 quintals. The results revealed that, at the overall level marketable surplus was 6.40 quintals. The quantities sold in channel-I (Producer-Consumer) was 1.00 quintals in small, 3.13 quintals in medium and 4.12 quintal in large size group and at overall level was 2.79 quintals. The quantity sold in channel-II (Producer –Wholesaler-Retailer-Consumer) at overall level was 3.61 quintals, 1.14 quintals, 3.44 quintals and 6.32 quintals in small medium and large size groups respectively.

Cost of marketing incurred by producer

Item wise per quintal cost of marketing of Finger Millet incurred by producer in different channels were calculated and are presented in Table 2 Results revealed that in channel-I, cost incurred by producer was Rs.62.35. Proportionate expenditure on packing material was higher in 48.12 per cent and 32.08 per cent on transportation and 19.80 per cent on labour charges. Per quintal cost incurred by producer in channel-II was Rs. 84.96. Proportionate expenditure on packing material was higher as 50.73 per cent followed by 30.44 per cent and 18.83 per cent for transportation and labour charges respectively.

Cost of marketing incurred by wholesaler

Per quintal cost of marketing of Finger Millet with respect to various items incurred by wholesaler are presented in Table 3 with regards to wholesaler in channel-II per quintal cost of Finger Millet marketing was Rs. 69.94. Proportionate expenditure on transportation charge was higher as 49.29 per cent. Storage charges were also higher as 21.87 per cent, labour charges 7.51 per cent. Market fee contributing 7.37 per cent, loading and unloading 6.08 per cent respectively.

Marketing cost of Finger Millet incurred by retailer

Per quintal cost of finger millet marketing incurred by retailer were calculated and are presented in Table 4 the results revealed that in channel-II, cost incurred by retailer was Rs. 28.55. The proportion of expenditure on transport charge was highest (45.70 per cent) founded by market fee (15.04 per cent), labour charges (28.79 per cent) and Losses (10.37 per cent) respectively.

Price spread Finger millet marketing

Per quintal marketing cost, marketing margin and price spread in Finger Millet marketing with respect to different channels were calculated and presented in Table 5. The results revealed that in regard to channel-I the gross price received by producer was Rs. 2272.99. While cost incurred by producer was Rs.62.35.

Thus, net price received by producer was Rs.2210.64. In channel-II, price spread in Finger Millet marketing was calculated and also presented in Table 5.19. The results revealed that gross price received by producer was Rs.2230.08. while cost incurred by producer was Rs.84.96.

The net price received by producer was Rs.2145.12. Further, cost incurred by retailer was Rs.28.55, while margin of the retailer was Rs.69.00. It implied that retailer had sold the produce to consumer at price of Rs.2560.43. Thus, in this channel marketing cost was Rs.183.45. Marketing margin was Rs.146.94. Where price spread was higher as Rs.330.39. The Producer's share in

consumer's rupees was 94.66 Per cent in channel-I, 83.77 per cent in channel-II.

Problems faced by Finger Millet growers

Problems faced by Finger Millet growers in production

Problems faced by Finger Millet growers in production are given in Table 6

The average score was obtained by Garrett ranking technique from the below the table 6. It was observed that, the major problem of high fertilizer cost at overall level 67.47 per cent (rank 1st) of growers was reported. Non availability of crop loan in time of sowing was one of the problems, which was reported by 61.36 per cent (rank 2nd) of the growers at overall level. Non availability of electricity in time as expressed by 59.65 per cent (rank 3rd) of the growers at overall level. High wages for labour, 56.52 per cent (rank 4th) of the growers reported at overall level. The difficulty in getting labour for doing different operation was expressed by 44.64 per cent (rank 5th) of growers at overall level. High cost seed was also complained by 31.08 per cent (rank 6th) farmer at the overall level about 23.74 per cent (rank 7th) growers faced by the problem of the non-availability of quality seed in time.

On the whole, the major problems faced by Finger Millet growers were high fertilizer cost, non-availability of crop loan in time, non-availability of electricity in time and high wage rate as put forth by 67.47 (rank 1st), 61.36 (rank 2nd), 59.65 (rank 3rd) and 56.52 per cent (rank 4th) of farmers, respectively at the overall level.

Table.1 per farm production, retention and Marketable Surplus of Finger Millet

(Value in qtls)

Sr. No.	Particular	Size Groups			
		Small	Medium	Large	Overall
1	Finger Millet Production	5.53 (100.00)	10.21 (100.00)	14.48 (100.00)	10.07 (100.00)
2	Retention for consumption and other	3.39 (51.45)	3.64 (35.64)	4.04 (27.40)	3.67 (36.00)
3	Marketable surplus	2.14 (38.70)	6.57 (64.34)	10.44 (72.09)	6.40 (64.00)
3	Quantity sold in channel-I (Producer- Consumer)	1.00 (18.50)	3.13 (30.65)	4.12 (28.45)	2.79 (27.80)
4	Quantity sold in channel-II (Producer-Wholesaler-Retailer- Consumer)	1.14 (20.20)	3.44 (33.69)	6.32 (43.64)	3.61 (36.20)

(Figure in the parenthesis indicate percentage to the total)

Table.2 Cost of marketing incurred by producer

(Value in Rs/qtls)

Sr. No.	Perticulars	Channel-I	Channel-II
1.	Labour charges	12.97 (19.80)	16.00 (18.83)
2.	Cost of packing material	30.00 (48.12)	43.10 (50.73)
3.	Transportation charges	19.38 (32.08)	25.86 (30.44)
	Total	62.35 (100.00)	84.96 (100.00)

(Figure in the parenthesis indicate percentage to the respective total)

Table.3 Cost of marketing incurred by Wholesaler

(Rs/qtls)

Sr. No.	Particular	Channel-II
1	Labour charges	5.25 (7.51)
2	Transportation charges	34.48 (49.29)
3	Loading/unloading	4.25 (6.08)
4	Market fee	5.16 (7.37)
5	Storage Charges	15.30 (21.87)
6	Other	5.50 (7.90)
	Total	69.94 (100.00)

(Figure in the parenthesis indicate percentage to the respective total)

Table.4 Cost of marketing incurred by retailer

(Rs/qtls)

Sr. No.	Particular	Channel-II
1	Labour Charges	8.25 (28.89)
2	Transportation charges	13.05 (45.70)
3	Market fee	4.25 (15.04)
4	Other	3.00 (10.37)
	Total	28.55 (100.00)

(Figure in the parenthesis indicate percentage to the respective total)

Table.5 per quintal marketing cost, margin and price spread

Sr. No.	Particulars	Channel I	Channel II
1	Gross price received by producer	2272.99 (97.33)	2230.08 (87.09)
2	Expenses incurred by producer	62.35 (2.67)	84.96 (3.31)
3	Net Price received by producer	2210.64 (94.66)	2145.12 (83.77)
4	Price paid by wholesaler		2315.04 (90.41)
5	Expenses incurred by wholesaler		69.94 (2.73)
6	Margin of wholesaler		77.94 (3.04)
7	Price paid by retailer		2462.88 (96.19)
8	Expenses incurred by retailer		28.55 (1.11)
9	Margin of retailer		69.00 (2.69)
10	Price paid by consumer	2335.34 (100.00)	2560.43 (100.00)
11	Total Marketing cost	62.35 (2.67)	183.45 (7.61)
12	Total Marketing margin		146.94 (5.73)
13	Price spread	62.35 (2.67)	330.39 (12.90)
14	Producer's share in consumer's rupees (%)	94.66	83.77

(Figure in the parenthesis indicate percentage to the respective total)

Table.6 Problems faced by growers in production

(Numbers)

Sr. No.	Factors	Total	Average score (%)	Rank
1	Non-availability of quality seed in time	2137/90	23.74	7
2	High cost seed	2798/90	31.08	6
3	Non-availability of labour in time	4018/90	44.64	5
4	High wage rates	5087/90	56.52	4
5	Non-availability of crop loan in time	5523/90	61.36	2
6	High fertilizer cost	6073/90	67.47	1
7	Non-availability of electricity in time	5369/90	59.65	3

Table.7 Problems faced by growers in Marketing

(Numbers)

Sr. No.	Factors	Total	Average score (%)	Rank
1.	Non- availability of transport facilities in time	5935/90	65.94	3
2	High transportation charges	5191/90	57.67	4
3	Lack of market information	3343/90	37.14	6
4	Faulty weight and measure	3065/90	34.05	8
5	Labour problem	4109/90	45.65	5
6	High commission charges	6354/90	70.60	1
7	Delay in payment	3097/90	34.41	7
8	Prices are not assured	6186/90	68.73	2

Problems faced by Finger Millet in marketing

Problems faced by Finger Millet growers in marketing are given in Table 7

The average score was obtained by Garrett ranking technique from the below the table 7, it was observed that, the commission charges were major bottleneck in efficient marketing of Finger Millet.

About 70.60 per cent (rank 1st) of the growers complained that commission charges were high at the overall level.

The price variation emerged as important problem and the same was complained by 68.73 per cent (rank 2nd) growers at the overall level. At the overall level 65.94(rank

3rd) and 57.67 per cent (rank 4th) of growers complained that transport facilities are not available in time and high transport charges. About 45.65 per cent(rank 5th) growers and 37.14 per cent (rank 6th) growers had faced the problem of labour and late information about market. About 34.41 per cent (rank 7th) farmers and 34.05 per cent (rank 8th) farmers had faced the problem of delay in payment and faulty weight measure at overall level, respectively.

The study indicated that there is scope to increase the producer’s share in consumer’s rupee by making the market more effective so that the number of intermediaries is to be restricted and marketing costs and marketing margins to be reduced. This will be the way for making finger millet cultivation more lucrative.

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