J. Farm Sci., 34(4): (418-421) 2021

RESEARCH PAPER

Marketing management of value added products of bengalgram in North Karnataka

SRIVIDYARANI S. SAJJAN, BALACHANDRA K. NAIK, VILAS S. KULKARNI
H. T. CHANDRANATH AND SUMA HASALKAR

Department of Agribusiness Management
University of Agricultural Sciences, Dharwad - 580 005, Karnataka, India
E-mail: sajjanvidyarani@gmail.com

(Received: October, 2021 ; Accepted: December, 2021)

Abstract: Bengalgram (*Cicer arietinum*) is one of the richest, cheapest and easiest source of best quality proteins and fats and also great ingredient to add in salads, stews and soups. Based on production data in the state, two districts, *viz*., Kalaburgi and Raichur were selected for the study due to its highest production and proportionate sampling procedure was followed to select the processing units. From both the districts ten bengalgram dal and bengalgram whole processing units and six fried gram processing units were selected for the study. Marketing costs and margins were analysed with the help of tabular analysis and marketing efficiency was calculated by using Acharyas method. The marketing cost incurred by the processor, wholesaler and retailers of bengalgram dal and whole was found to be ₹ 123 (each), ₹ 100 (each) and ₹ 150 (each) per quintal respectively. Similarly, in case of fried gram, it was found to be ₹ 93, ₹ 95 and ₹ 150 per quintal respectively. The consumer price for one quintal of bengalgram dal was found to be ₹ 7,120 and ₹ 6,390 respectively, (Grade 1 and Grade 2) with price spread of ₹ 2,901 and ₹ 2,171, respectively. Processor share in consumer rupee was found to be 71.93 and 80.14 per cent, respectively. The marketing efficiency was observed to be 2.36 and 3.59. The price spread, processors share in consumer rupee and marketing efficiency for bengalgram whole was found to be ₹ 1,736, 87 per cent and 5.52. The processors share in consumer rupee of both the grades of fried gram was 70 and 76 per cent, respectively. The marketing efficiency in both grades was 2.23 and 2.92 respectively.

Key words: Bengalgram, Marketing costs, Marketing efficiency, Price spread

Introduction

Bengalgram (*Cicer arietinum*) belongs to the family Fabaceae. Bengalgram wasone of the major pulse crops grown in India. It is called by many names *viz*., gram, chickpea, garbanzo or garbanzo bean and Egyptian pea. Bengalgram is originated from South West Asia, which was one ofthe richest, cheapest and easiest source forcarbohydrates, proteins, calcium, iron, sodium, magnesium, potassium, choline and vitamins like A, B-6, C and K. It has vast multiplicity uses in food and industrial products. However, The domestic demand and consumption are much higher than production, due to its richness in protein content for a large section of the vegetarian population in the country. Bengalgram is the ingredient mainly in salads and also curry based dishesand often consumed as a snack item.Bengalgram flour called as besan is used to make pancakes, which are a popular breakfast recipe across India. Important and major markets of chickpea in India are Mumbai, Delhi, Chennai, Indore, Kanpur, Bikaner, Hapur and Hyderabad. Whereas important chickpea markets in Karnataka are Kalaburgi, Sedam, Dharwad, Bidar, Bengaluru, Mysuru, Raichur and Ballari.Indian pulse market is a price sensitive market. There is a great deal of substitutability between pulse crops. The present demand for chickpea in India is estimated at 15 million tonnes. The demand is price sensitive as people go for higher consumption of chickpea only when the price of vegetables is high. On the price front, a retail price of more than ₹ 30 per kg starts developing consumer resistance in their consumption. In earlier years in India, chickpea was regarded as food for the poor who could not afford to buy vegetables (Wable and Tambe, 2017). Bengalgram occupies the third position among all food grains area in the country accounting for 7.65 per cent and fourth position in total food grain production accounting for 3.48 per cent. Rajasthan stands first with respect to area of about 24.63 lakh hectares which is contributing about 25.39 per cent of the total area of the country. From the production point of view, Madhya Pradesh stands first with 27.29 lakh tonnes contributing about 24.63 per cent of the total production in the country followed by Rajasthan (23.98%), Maharashtra (20.21%) and Karnataka (6.09 %) (Anon.,2020). While in North Karnataka, Vijayapura isthe leading producer with respect to both area and production of chickpea. The total area of chickpea in Vijayapura district was 2,68,725 hectares which accounted around 24 per cent of the area and total production of chickpea in Vijayapura district was 1,23,815 tons which accounted for nearly 22.75 per cent of chickpea production in North Karnataka, (Anon., 2018). Other major chickpea producing districts are Kalaburgi (18.24%), Raichur (17.31%), Belagavi (15.02%) and Bagalakote (8.32%), respectively. Hence the study was taken up to examine marketing management of value added products of bengalgram in North Karnataka.

Material and methods

The study was carried out Department of Agribusiness Management, University of Agricultural Sciences, Dharwad, Karnataka during 2019-20. Two districts namely Kalaburgi and Raichur were selected for the study based on the highest production of bengalgram in the state. Proportionate sampling procedure was followed for the selection of processing units in the study area. From both the districts ten bengalgram dal and bengalgram whole processing units and six fried gram

processing units were selected for the study. For evaluating the objective of the study, the required data were collected through personal interview method using well-structured and pre-tested schedule.

Analytical techniques employed was Marketing efficiency approach

According to Acharya's approach, marketing efficiency is an ideal measure of marketing, particularly for comparing the efficiency of alternate markets/channels, which takes into account Total marketing cost (MC), Net marketing margins (MM) and Prices received by the processing unit (FP). Thus, MME= FP/ (MC+MM) -1, where, MME is the modified measure of marketing efficiency and MC and MM are marketing costs and marketing margins, respectively. Only one marketing channel was identified in the study area through which the value added products *viz*, bengalgram dal, bengalgram whole and fried gram were marketed from the processors to ultimate consumers. Channel – I: Processor –Wholesaler – Retailer – Consumer

Results and discussion

The total marketing costs incurred by the processors, wholesalers and retailers in marketing of value added products of bengalgram per quintal arepresented in the Table 1. The marketing cost incurred by the processor, wholesaler and retailer of bengalgram dal and bengalgram whole was found to be ₹ 123(each), ₹ 100 (each) and ₹ 150 (each) per quintal, respectively. While in case of fried gramit was found to be ₹ 93, ₹ 95 and ₹ 150 per quintal, respectively.

Among the total marketing costs incurred by the processor of all value added products, packing material cost accounts major share, which was around 65 to 70 per cent, followed by commission charges (10-12 %), loading and unloading charges (8-10%) and weighing and packing charges (8-10 %). Whereas, in case of wholesalers, the major marketing costs were transportation charges which was around 44 to 47 per cent, followed by rent including storage cost (27-28 %), commission charges (10-15 %) and loading and unloading charges (around 10 %). While with respect to retailers, prime marketing costs were rent including storage cost (46.18 %) followed by transportation charges (21.03 %), packing material cost (20.03 %), loading and unloading charges (6.68 %), electricity charges (4.79 %) and weighing and packing charges (1.30 %).

The packing material usually used in packaging of value added products were plastic gunny bags, HDP bags, nonwoven gunny bags and dissolvable gunny bags. Majority of the industries pack the above mentioned products with the quantity of 25 kg. Only few industries pack bengalgram dal in 5 kgs with the packing material of dissolvable gunny bags. The transportation cost incurred by the wholesaler was found to be more when compared to the retailer. Most of the industries are located in the

Table 1. Marketing costs in value added products of bengalgram

Sl. No.	Particulars	Bengalgram dal (₹ /quintal)				Bengalgram whole (₹ /quintal)				Fried gram (₹ /quintal)			
		Processor	Wholesaler	Retailer	Total	Processor	Wholesaler	Retailer	Total	Processor	Wholesaler	Retailer	Total
1	Loading and unloading charges	10.00 (8.13)	10.00 (9.99)	10.00 (6.68)	30.00 (8.05)	10.00 (8.13)	10.00 (9.99)	10.00 (6.68)	30.00 (8.05)	10.00 (10.69)	10.00 (10.52)	10.00 (6.68)	30.00 (8.87)
2	Transportation charges	-	44.75 (44.71)	31.5 (21.03)	76.25 (20.45)	-	44.75 (44.71)	31.5 (21.03)	76.25 (20.45)	-	44.75 (47.06)	31.50 (21.03)	76.25 (22.53)
3	Commission	15.00 (12.20)	15.00 (14.99)	-	30.00 (8.05)	15.00 (12.20)	15.00 (14.99)	-	30.00 (8.05)	10.00 (10.70)	10.00 (10.52)	-	20.00 (5.91)
4	Rent (storage cost)	-	27.13 (27.10)	69.18 (46.18)	96.30 (25.83)	-	27.13 (27.10)	69.18 (46.18)	96.30 (25.83)	-	27.13 (28.53)	69.18 (46.18)	96.31 (28.46)
5	Packing material cost	84.00 (68.30)	-	30.00 (20.03)	114.00 (30.57)	84.00 (68.30)	-	30.00 (20.03)	114.00 (30.57)	59.50 (63.64)	-	30.00 (20.03)	89.50 (26.45)
6	Weighing and packing charges	10.00 (8.13)	-	1.95 (1.30)	11.95 (3.20)	10.00 (8.13)	-	1.95 (1.30)	11.95 (3.20)	10.00 (10.70)	-	1.95 (1.30)	11.95 (3.53)
7	Grading charges	1.00 (0.81)	-	-	1.00 (0.27)	1.00 (0.81)	-	-	1.00 (0.27)	1.00 (1.07)	-	-	1.00 (0.30)
8	Electricity charges	1.00 (0.81)	1.21 (1.21)	7.18 (4.79)	9.38 (2.52)	1.00 (0.81)	1.21 (1.21)	7.18 (4.79)	9.38 (2.52)	1.00 (1.07)	1.21 (1.27)	7.18 (4.79)	9.38 (2.77)
9	Miscellaneous charges	2.00 (1.63)	2.00 (2.00)	-	4.00 (1.07)	2.00 (1.63)	2.00 (2.00)	-	4.00 (1.07)	2.00 (2.14)	2.00 (2.10)	-	4.00 (1.18)
	Total	123.00	100.09	149.81	373.00	123.00	100.09	149.81	373.00	93.5	95.09	149.81	338.39

Note: Figures in parentheses indicate percentage to total.

Table 2. Costs and margins in marketing of value added products of bengalgram (₹ /q)

Particulars	Bengalgram dal				Bengalgram whole		Fried gram			
	1st grade		2nd grade		1st grade		1st grade		2nd grade	
	₹	%	₹	%	₹	%	₹	%	₹	%
Purchase price	4219	59.26	4219	66.03	4219	78.35	4217	58.53	4217	63.18
Cost of processor	5121	71.93	5121	80.15	5165	86.73	5066	70.31	5066	75.90
Margin of processor	1228	17.24	813	12.73	225	3.77	1298	18.02	953	14.28
Selling price of processor	6349	89.17	5935	92.88	5390	90.50	6364	88.33	6019	90.84
Purchase price of wholesaler	6349	89.17	5935	92.88	5390	90.50	6364	88.33	6019	90.84
Cost of wholesaler	6449	90.57	6035	94.44	5490	92.19	6459	89.64	6114	91.59
Margin of wholesaler	316	4.44	110	1.72	195	3.28	345	4.79	311	4.66
Selling price of wholesaler	6765	95.01	6145	96.17	5685	95.47	6805	94.45	6425	96.25
Purchase price of retailer	6765	95.01	6145	96.17	5685	95.47	6805	94.45	6425	96.25
Cost of retailer	6915	97.12	6295	98.51	5835	97.98	6954	96.52	6574	98.49
Margin of retailer	205	2.88	95	1.49	120	2.02	250	3.47	100	1.50
Selling price of retailer	7120	100.00	6390	100.00	5955	100.00	7205	100.00	6675	100.00
Consumer's purchase price	7120	100.00	6390	100.00	5955	100.00	7205	100.00	6675	100.00
Price spread	2901	40.74	2171	33.97	1736	29.15	2988	41.47	2458	36.82
Processor's share in consumer rupee (%)	71.93		80.14		86.73		70.31		75.89	
Marketing efficiency	2.36		3.59		5.52		2.23		2.92	

Note: Cost of processor includes raw materials cost, processing cost, storage cost and marketing cost of processor

industrial areas which are usually located in outskirts of cities. Transportation cost varied depending upon the distance of the market from the industries. The poor quality of road network corresponds directly to an environment of high transaction costs that contributes to high dispersion of prices across the geographic space. It can therefore be concluded that road transport should be improved upon so as to improve the marketing chain for value added products of food grains in the study area. Improved roads stimulate the value addition through reduced transport costs, leading to lower input prices and higher prices to the processors. These results were in accordance with the observation made by Shweta (2016) in her study on value chain management in major fruit crops in North Karnataka.

The results of costs, margin and price spread in different value added products of bengalgram *viz.,* bengalgram dal, bengalgram whole and fried gram are presented in the Table 2. Bengalgram dal and fried gram are produced in two grades (Grade 1 and Grade 2).

In the case of bengalgram dal, the processor purchases the raw materials at the rate of ₹ 4,219 per quintal. Thus, adding his raw materials cost, processing, storage and marketing costs of ₹ 5,121, processor arrives at ₹ 6,349 and ₹ 5,935 respectively, as his selling price (Grade 1 and Grade 2). The profit of the processor for grade 1 and grade 2 was found to be ₹ 1,228 and ₹ 813, respectively. The cost incurred by the wholesaler was ₹ 100 and sells at ₹ 6,765 and ₹ 6,145 respectively, (Grade 1 and Grade 2), with the profit of ₹ 316 and ₹ 110 respectively, from each quintal of bengalgram dal. The cost incurred by the retailer was ₹ 150 and sells the produce to ultimate consumer at ₹ 7,120 and ₹ 6,390, respectively, for grade 1 and grade 2 and arriving at the profit of ₹ 205 and ₹ 95, respectively. The price spread for 1st grade and 2nd grade dal was observed to be ₹ 2,901 and ₹ 2,171 respectively and processor share in consumer rupee was found to be 72 and 80 per cent. The marketing efficiency was observed to be 2.36 and 3.59, respectively. These findings were in accordance with results obtained by Kumar (2013) and Renuka (2019).

In the case of bengalgram whole, the processor purchases the raw material at ₹ 4,219 per quintal, thus, adding his raw materials cost, processing, storage and marketing costs of ₹ 5,165, and sells at ₹ 5,390 with the profit of ₹ 225 per quintal. The wholesaler sells the produce at ₹ 5,685 after deducting marketing cost of ₹ 100 and keeps the margin of ₹ 195. The retailer after incurring his marketing cost of ₹ 150, sells at ₹ 5,955 with a profit of ₹ 120. The price spread and processors share in consumer rupee was found to be ₹ 1,736 and 87 per cent. The marketing efficiency was found to be 5.52.

In the case of fried gram, processor purchases the raw materials at ₹ 4,217 and cost of processor was observed to be ₹ 5,066 including the raw materials cost, processing, storage and marketing costs. The processor sells the 1st grade and 2nd grade to wholesaler at ₹ 6,364 and ₹ 6,019 respectively, by keeping the profit of ₹ 1,298 and ₹ 953 per quintal, respectively. The marketing cost incurred by the wholesaler was ₹ 95 and sells 1st grade at ₹ 6,805 and 2nd grade at ₹ 6,425 with the profit of ₹ 345 and ₹ 311 respectively. The marketing cost incurred by the retailer was150 and sells the produce to ultimate consumer at ₹ 7,205 (1st grade) and ₹ 6,675 (2nd grade) with the profit of ₹ 250 and ₹ 100 respectively. The price spread of 1st grade and 2nd grade fried gram was observed to be ₹ 2,988 and ₹ 2,458, respectively. Similar pattern of results were observed by Amit kumar (2013). The processors share in consumer rupee in both the grades was 70 and 76 per cents respectively. The marketing efficiency in both grades was 2.23 and 2.92, respectively.

Conclusion

The marketing cost incurred by the processor, wholesaler and retailer of bengalgram dal and bengalgram whole was found to be ₹ 123 (each), ₹ 100 (each) and ₹ 150 (each), respectively

with the total cost of all market intermediaries of ₹ 373 and the same in the case of fried gram was found to be ₹ 93, ₹ 95 and ₹ 150, with the total marketing cost of 338 per quintal. The packing material used in packing of bengalgram products was plastic gunny bags, HDP bags, nonwoven gunny bag and dissolvable gunny bags. Majority of the industries pack the products with the quantity of 25 kg. Only few industries pack bengalgram dal in 5 kg with the packing material of dissolvable gunny bag. The marketing cost incurred by wholesaler in marketing of bengalgram products, the major contribution was from transportation charges, while with respect to retailers, the major contribution was from shop rent. Marketing efficiency reduces as the number of intermediaries increase in the marketing channel. Hence, the processing units should discourage the involvement of more intermediaries between them and consumers to improve the marketing efficiency.

References

Amitkumar, 2013, Value addition in Bengal gram – A business management appraisal. *MBA. Thesis, University of Agricultural Sciences*, Dharwad, Karnataka, India.

Anonymous, 2018, Directorate of Economics and Statistics, Karnataka.

Anonymous, 2020, Ministry of Agriculture and Farmers welfare, Directorate of Economics and Statistics, New Delhi.

Kumar A, 2013, Value addition in Bengal gram – A Business Management appraisal. *MBA. Thesis, University of Agricultural Sciences*, Dharwad, Karnataka, India.

Renuka, 2019, Value chain analysis of red gram in Karnataka. *M, Sc. (Agri.) Thesis,* Professor Jayashankar Telangana state Agricultural University, Hyderabad.

Srikanth B, Kausadikar H H, Jondhale R N. and Gandhi N, 2017, Economic analysis of maize production and marketing in Khammam district, Telengana. *Asian Journal of Agricultural Extension, economics and socology,* 20(4): 1- 13.

Shweta M K, 2016, Value chain management in major fruit crops in North Karnataka. *Ph.D. Thesis,* University of Agricultural Sciences, Dharwad, Karnataka, India.

Wable A and Tambe P C, 2017, Economic analysis of chickpea marketing in Ahmednagar district of Maharashtra. *Trends in bioscience,* 10(41): 8643 - 9648.