

# **Market survey and value chain analysis of Chickpea in Andhra Pradesh**

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## MAIN FINDINGS OF MARKET SURVEY – CHICKPEA ANDHRA PRADESH

Market survey along the value chain of chickpea is conducted by contacting stakeholders of market chain like brokers, traders, processors, retailers, rural and urban consumers. Market survey has been aimed at generating the information on value chain of chickpea, market margins and costs along with focus on preferred traits of chickpea cultivars. This data from processors and retailers was used to prioritize traits, by synthesizing baseline survey information.

### **Hypothesis formulated for market survey**

There is an established marketing network and existence of various market channels for chick pea in the study area

The value chain agents are also using the old varieties due to lack of alternatives.

Major trade is happening informally

Different stakeholders along the value chain are ready to pay a premium price for the preferred traits.

Producer's share in consumer's rupee is high in regulated market channels and direct market channels

There is significant value addition for chickpea in the study area

There are several constraints for different stakeholders of chickpea marketing

Consumers are ready to pay premium for quality produce.

**Methodology:** For the market survey has been conducted by contacting the functionaries who are licensed from the Agricultural Market Committees (AMCs). A group of consumers from rural and urban markets are covered. The sample covered is 75 in each district. The data from importers and exporters could not be obtained because of non availability in the study area. The composition of sample size belonging to various stakeholders of marketing of chickpea are as shown in Table 1a

Table 1a: Split up of sample size covering stakeholders of chickpea market

Name of the district	No of brokers / Commission agents / traders	No of Processors	No of retailers	No of rural consumers	No of urban consumers
Kurnool	15	20	20	10	10
Prakasam	15	20	20	10	10
Total	30	40	40	20	20

Major findings of market survey analyzed separately for different stakeholders and presented.

Brokers, traders and commission agents are licensed stakeholders hold the produce for few weeks, immediately after first sale of gram and channel out the produce to cater the consumer needs and demand from different channels.

Fifteen brokers in each district are interviewed as per Table-1 whose annual turnover is 718 quintals and 611 quintals for Kurnool and Prakasam districts and overall average annual turnover is Rs. 1.36 Crores. Contractual agreements between the brokers and farmers are not common in the study area.

Timely payment is an important criterion for farmers that influence the adherence of a farmer to a particular channel. As brokers make immediate payments to farmers in Kurnool, majority of sales are through brokers at the village level. In Prakasam the time lapse for the payment ranged from 1 to 14 weeks along with 15% of interest (Table. 4).

The preference of traders/broker with respect to the purchase of chickpea is documented and presented in Table 5. Traders considered bigger grain size as preferred trait in case of Annigeri, JG-11 and KAK-2 cultivars, second trait preferred was better taste for Kabuli type KAK-2 and pest disease free material for Annigeri and JG-11.

Later, they also opined that purchased produce should be free from pests and diseases and clean for KAK-2. For Annigeri and JG-11 clean produce and good reddish brown colour is preferred as shown by Table-5. On an average, the brokers are ready pay better price for these traits ranging from Rs.5-10 extra per kg fetching Rs.500/- to 1000/- extra per quintal to the farmer.

Quality of the produce brought for sale is influenced by climatic conditions, proper time of harvesting and drying along with other post harvest management practices like cleaning and grading. Price range offered by brokers for best quality was Rs.2150/- to 2500/- per quintal, medium quality was Rs.2100/- to 2400/- per quintal and for poor quality was Rs.1900/- to 2135/- in the price offered for best quality over poor quality is quite high. By maintaining the quality of the produce farmers can get a better price as shown in Table-6. Access to information regarding the quality standards and prices prevailing elsewhere will give the farmer better bargaining power even at the village level or the market yard.

Chickpea is contributing to 33.17% of total turnover annually to brokers as shown in Table-7. Brokers reported that except the loss of 1 to 3 quintals total quantity purchased is sold with an average net margin of Rs.236/- per quintal on the overall basis. The overall fixed cost is obtained and apportioned per quintal as indicated in the Table 8 and the carry cost per quintal included fixed and variable costs is Rs. 70/-.The constraints faced by the brokers are

of the order lack of infrastructure and storage facilities, risk of high price fluctuations and quality traits information is not available which are presented in Table 9.

A cursory look into Table 10 showed the details of processors of chickpea products. The common processed products from chickpea involving primary and secondary level processing are split grain or dal, fried gram and flour. These processors are located near the district headquarters of Kurnool and Prakasam. The average output of plants ranged from 2 to 10 tones. Average processing of 354.66 tones of chickpea per annum is done. Chickpea is major product having a share of 77% of annual turnover of these processors business indicating lot of potential for upcoming of processing industries in this area. Average recovery rate for main product is 78.8% in chickpea. The byproduct bhusa is used in preparation of feed for livestock and poultry. The grain for processing is procured from commission agents, farmers and traders. Nearly 205 tons on an average purchased from all sources. But direct purchases from farmers limited to 100 tons only. Even though the new APMC act is designed to encourage direct channel of marketing to processors such linkages, are not used by farmers. Such linkages can be developed to improve the remuneration of the farmers. The existence of processing firms nearby provides a scope to involve them in direct buyback contracts with farmers which is useful for both parties.

The price for gram offered by processors ranged from Rs.20, 333/- to Rs.22, 142/- per ton. Processors paid less when they directly procure from the farmers. As discussed in Table-12 main product is sold at an average price of Rs.23, 548/- per ton. Processors supply dal, flour and fried gram to consumers, whole sale market, retailers and super markets. Some of the processing firms are dealing with two products like dal and fried gram and dal and flour etc.

If is inferred from the Table-13 net margin for dal in Rs.178/- per quintal. Fixed costs and variable costs are accounting to Rs.575/- per quintal. The net margins on sale of flour is Rs. 137.11 per quintal and gram Rs.114.74 per quintal.

Processors of chickpea specified that grain should be of bigger size, colour and pest disease free grain are preferred traits. Bigger size is preferred as dal obtained will be bold. Later they preferred to have better taste and high recovery rate are traits that are preferred as shown in Table-14.

The graded product and best quality product is offered at a price ranged between Rs.2100/-to Rs.2700/- medium quality product is offered with Rs.1900/- to Rs.2600/- clean harvest and grading at farmers level fetch a better price along the value chain as noted in Table-15.

The general constraints faced by processors are, cleanliness of product, cold weather during processing, finance problems, labour problems and power, some vigilance and political problems (Table 16). Clean production techniques can be incorporated in the trials, which necessitates some training on clean harvest and grading, proper drying etc. Apart from this proper buyback arrangements and post harvest management of produce are required to overcome such problems.

Table-17 revealed that retailers sell whole grain, fried gram, spilt grain (dal) and flour. Dal and flour are on-shelf products move at a faster rate. Retailers procure from two different sources, wholesalers and processors. Retailers buy whole grain at Rs.2,553/- per quintal on an average.

Retailers sold 8.43 quintals of Kabuli chickpea, whole grain (Desi type) and split dal sold are 8 and 13 quintals per annum.. Flour is sold as high as 19.49 quintals per year on an average as it is used frequently in preparation of snack foods. The quantities of transaction by the retailers are small as they cover consumers living nearby.

The net margin to the retailers is Rs 294/- and 286/- per quintal for whole grain sale of Kabuli and Desi type gram. Net margin is Rs. 659/- per quintal and Rs. 1018/- per quintal per annum for split dal and flour to the retailers.

Retailers also preferred better taste, bigger grain size and less cooking time keeping their customer's interest in view as in Table-20.

The constraints faced by retailers doing a small business are facing problems because consumers prefer super markets nowadays. Major constraints faced by them are increased fixed and variable costs (carry costs indicated by increased cost of storage of the produce) and high price fluctuations. There is a possibility that sooner the village retailers may have to transform into mini super markets for their survival which will increase their carry costs further. The variation in the price offered by retailers ranged from Rs.10/- to Rs.150/- per quintal depending on the quality as seen in Table-22. . In light of this quality production would become crucial in future in the study area.

The retailers consider factors like the price prevailing for chickpea, transportation costs, consumer's demand for the product and expected profits while fixing a the sale price of chickpea.

The final point along the value chain is the consumers who buy different range of products available. Among all semi processed chickpea dal is consumed in greater quality 34 kg / annum followed by flour 18.35 kg / annum. But consumers also use whole grain in different curry preparations and purchase 7-8 kg / annum. Spouted whole grain is consumed

and distributed in many hindu festivals and is recommended by the dieticians to be consumed every morning as a health food. (Table -24).

Consumers also purchase from different market places like village shops, weekly markets (shandy), wholesale, retail and supermarkets. Most popularly used market places for dal and flour by consumers are wholesale and village retail shops.

As noted from Table-26, the top three traits preferred by the consumers are better taste, bigger grain size and keeping quality for KAK-2 whole grain. and for dal preferred qualities are better taste, big size , followed by colour and keeping quality.

It was noted from table-28 that consumers they are ready to pay a price premium of Rs. 26/- to Rs.29/- for preferred qualities. Consumers have constraints as shown in Table-30 with quality of product such as adding the admixtures, high price and cleanliness.

Consumers opined that colour additives are used in split dal, which they did not prefer, but the processors preferred to add colour to split dal for bringing uniformity in appearance.

## KEY HIGHLIGHTS OF THE MARKET SURVEY OF CHICKPEA IN ANDHRAPRADESH

- Study area contains good marketing network providing ample scope for improving the institutional arrangements, value addition and exports
- The stakeholders of market chain are commission agents, brokers, traders, processors, wholesalers, retailers, new supermarkets and rural and urban consumers
- Among various institutions which are playing crucial a role in marketing chickpea AMCs( Agricultural Market Committees) middle men with lot of investment in the markets, public finance agencies, storage providers and the processing agencies are visible through the survey indicating the significance of development of marketing network near the production centers.
- It is noticed that there are AMCs near by to the production centres of chickpea but the trading of chickpea do not happen at large scale in the premises of AMCs. The particular crop is not notified for these market yards.
- But never the less the volumes getting transferred to other places for processing or for direct consumption are being recorded at the check posts by the marketing personnel, and all the produce transported to other places crossing the border of the district are charged with the 1% market cess and the volumes are transacted are also recorded at the Agricultural Market Committee level.
- The various logistic functions are carried out by the stakeholders along the value chain. The commission agents hold the produce by taking preliminary minimum care required being dispatching the produce the desired destinations. He also can provide minimum storage facilities and drying facilities because he is the primary person holding the produce after receiving it from the farmer.
- After the produce is transported to either trader or to the processors, the trader holds the produce and distributes the produce from the major producing centres to the prevailing markets
- Above functionaries invest lot of capital in advancing the immediate cash payments to the farmer, managing the staff, huge investment on storage and transportation
- The processors also invest on the machinery, buildings and on labour involving lot of expenditure on labour and storage of dal and arranging for the transportation of split dal to other places.
- The processors and traders have vertical integration assuming more than one function either forward or backward. They are even integrated with the wholesalers, retailers and consumers up to some extent.

- Some more light needs to be thrown on to chickpea value chain analysis, examining the value chain agents and to study the supply chain as a whole , including the backward integration , about the arrangements , quality, quantity, technical advisory, seed suppliers, seed producers, arrangements , discounts, communication, pricing of seed, input dealers, input manufacturers and the forward integrators such as market agents, processors where there is possible market innovation systems
- The importance of warehousing facilities and access can not be neglected.
- The reuse or improvement of indigenous storage structures can be opted as it helps the value addition to the produce by one way or the other.

There are six different market chains identified revealed by the survey

1. Farmer --- Commission agent----Trader --- Processor ---- Wholesaler ----Retailer --  
--Consumer

Many times the commission agents in the study area are procuring the produce at the farm gate itself relieving the farmers of the burden of transportation and losses at the market yard at the time of transaction.

2. Farmer --- Commission agent/ --- Processor ---- Wholesaler ----Retailer ----  
Consumer

Commission agents after the procurement hold it for few days or weeks and transfer direct to the processors without the involvement of traders.

3. Farmer --- Trader --- Processor ---- Wholesaler ----Retailer ----Consumer

Traders also act as commission agents but again supply to the processors either to produce split dal , flour or to be consumed as whole grain

4. Farmer --- Processor ---- Wholesaler ----Retailer ----Consumer

Similarly processors also are involved in procurement for them selves and get assured quantity and quality grain. As shown below they are not only linked by the retailer to the consumer but also linked directly to the consumers.

5. Farmer --- Processor ----Retailer ----Consumer

6. Farmer --- Processor ---- Consumer

- Major trade in chickpea is handled by unorganized sector, which necessitates the market innovations and more systematic value chain management.
- The preferred traits are different for different market stakeholders as follows



- The processing firms are located nearby to the chickpea production area, further growth in value addition is possible
- Due to the existence of processing plants at the district headquarters, value addition is done to the raw gram involving primary and secondary level of processing .
- Consumers preferred better taste in KAK-2 , big grain size
- Further it can be explored by extending the study to check the value addition and tracking the potential market demand from this area
- The price spread and detailed carry costs can be worked out by taking up detailed market study
- The potential for exports also can be studied if this study permits to workout the resource cost analysis.

## MARKET SURVEY CHICKPEA ANDHRA PRADESH

### Module 1: Middlemen/trader

Table 1: Annual turnover

District	Number of brokers/ taluka	Number of villages covered	Total annual turnover	Average annual turnover (Rs crores)
Kurnool	15	37	718	1.45
Prakasam	15	69	611.33	1.31
Over all	30	49	646.88	1.36

Table 2: Contractual arrangement

Number of farmers with prior arrangements	Percentage			
	Credit	Inputs	Storage	others
Informal	Nil	Nil	Nil	Nil

Table 3: Timing of contracts

Percentage			
Before crop season	Middle of crop season	Just before harvest	After harvest
No	No	no	No

Table 4: Mode and timing of payments

District	Total number of brokers who pay immediately after buying	Number of brokers who pay after 1 weeks	Number of brokers who pay between 2-4 weeks	Number of brokers who pay after 1 month	Average rate of interest paid
Kurnool	15	-	-	-	-
Prakasam		9	6	-	15%
	15	9	6	-	15%

Table 5: Quality characteristics for buying

Trait	GS-Kabuli	Rank	Price premium willing to pay	GS-Annigeri /JG-11	Rank	Price willing to pay
Bigger grain size	64.3	1	5	50.8	1	5
Colour (White/Red/Brown)	31.3	6	5	28.8	5	5
Better taste	52.6	2	5	43.6	3	5
High recovery rate	35.7	5	5	25.7	7	5
Pest and disease free	39.9	3	10	47.2	2	10
Shelling %	12.2	8	10	7.1	8	10
Cleanliness	38.0	4	5	32.9	4	5
Uniformity	27.4	7	5	27.5	6	5

Table 6: Price variation

Quality grade	Range of price variation (Rs/Qt)	
	Kurnool	Prakasam
Best quality	2150-2500	2500-3000
Medium quality	2100-2400	2000-2200
Poor quality	1900- 2135	1250- 1500

Table 7: Purchase price

Name of crop	District	Quantity (Tons/year)	Average price (Rs/ton)	Total value (lakh Rs)	Share in total turnover (%)	Sold quantity (tons/year)	Average selling price (Rs/ton)
Chickpea	Kurnool	210	22300	42.37	33.33	207	25200
	Prakasam	237.5	21566.6	46.90	33	236	24566.66
	Over all	447.5	21811	88.87	33.17	442	24883.33

Table 8: Margins of middlemen/trader/commission agent

Name of crop	District	Gross margins (rs/Q)	Fixed costs (Rs/year)	Fixed costs (Rs/Qt)	Variable costs (Rs/Qt)	Total costs/Q	Net margins (Rs/Q)
Chickpea	Kurnool	290	35121	16.72	55	71.72	218.28
	Praksam	300.06	34762	14.63	55	69.63	230.43
	Over all	307.2	69883	15.61	55	70.61	236.59

Table 9: Constraints and suggestions of the brokers

Constraint/suggestion	Frequency
High price fluctuations	4
Market facilities not available	5
No storage facility	9
Payment risk	15
Quality traits not available	3

Note: Group constraints and suggestions under common headings such as transport, infrastructure or credit, and report those.

### Module 3: Processors

Table 10: Processing capacity

Name of crop	Type of processing	Average capacity (unit )	Average capacity utilization (tons)	Quantity of crop processed (tons/year)	Total value (Rs)	Share of crop in total value (%)	Recovery rate for main product (%)	Recovery rate for by product (%)
Chickpea	Dal	8.09	343.18	-	-	80.45	-	-
	Dal & Fried gram	10	375	-	-	60	-	-
	Floor & Dal	2	300	-	-	75	-	-
	Fried gram	3	200	-	-	-	-	-
Average		7.6	335	354.66	7715333	77.14	78.8	19.46
Pigeon pea	Dal			166.66	3700000	-	80	18.33

Table 11: Sources of grain for processing

Name of supplier	Quantity (tons/year)	Buying price (Rs/tons)
Commission agent	216.81	20890.90
Farmers	100	20333.33
Traders	277.85	22142.85
Total/average	205.41	21116.66

Table 12: Details of sales of main and by products

Users	Main product		By product	
	Quantity (qts)	Average price (Rs/qt)	Quantity (qts)	Average price (Rs/qt)
Consumers	267.5	2550	-	-
Retailers	165.45	2315.45	-	-
Whole sale market	527.23	2369.23	-	-
Super markets	104.44	2377.77	-	-
Others	-	-	-	-
Total/average	289.97	2354.85	316.85	510

Table 13: Turnover costs of processors

Name of product	Average buying price (Rs/Qt)	Average selling price of main product (Rs/Qt)	Average selling price of by product (Rs/Qt)	Gross margins including byproduct (Rs/Qt)	Fixed costs (Rs/Qt)	Variable costs (Rs/Qt)	Net margins (Rs/Qt)
Chickpea dal	2111.6	2354.85	510	753.25	573.3634	1.88	178
Chickpea flour	2354.85	2587.12	680	-	512.11	30.18	137.11
Fried gram	2116.85	2282	550	-	400.21	35.05	114.74

Table 14: Quality characteristics for processing

Traits	Split grain (dal)			Flour		
	Modal rank	Range of premium (Rs/kg)	Percentage of processors who assigned modal rank	Modal rank	Range of premium (Rs/kg)	Percentage of processors who assigned modal rank
Bigger grain size	1	5-10	25	1	5-10	18
Colour (white/red/brown)	2	1-5	6.25	2	1-5	18
Better Taste	3	1-3	18	3	1-3	18
High recovery rate	4	1-3	31	-	-	-
Pest & disease free	2	1-3	18	-	-	-

Table 15: Variation of price

Quality grade	Range of price variation (Rs/Qt)
Best quality	2100-2700
Medium quality	1900-2600
Poor quality	1700-2400

Table 16: Constraints and suggestions of the processor

Constraint/suggestion	Frequency
Cleanliness of the product	11
Cold weather problem for processing	6

Electricity problem	4
Finance problem	10
Hamali availability	7
Power, interference of vigilance officers	5
Several taxes and electricity charges	3

Note: Group constraints and suggestions under common headings such as transport, infrastructure or credit, and report those.

## Module 4: Retailers

Table 17: Quantity purchased by the retailer (in quintals)

Products	Wholesale market	Weekly market	Processors	Super market	Total quantity (Qt)	Average price (Rs/Qt)
Kabuli chickpea (whole grain)	5.5		9.0		14.5	2553.33
Other varieties (whole grain)	-	-	-	-	-	-
Split grain (dal)	9.71		23.4		33.11	2633.92
Flour	8.4		10.26		18.66	3112.5

Table 18: Total sales of crop products per year

Name of crop	Quantity sold (Qt/year)	Proportion of share in total turnover(%)	Average price (Rs/ton)
Kabuli chickpea (whole grain)	8.43	1	30.62
Other varieties (whole grain)	8.07	1	27.46
Split grain (dal)	13.89	11.12	23.77
Flour	19.49	15	28.21

Table 19: Margins for the retailers

Name of crop product	Quantity sold (Qt/year)	Average sale price (Rs/ton)	Gross margins (rs/Qt)	Fixed costs (Rs/year)	Variable costs (Rs/Qt)	Net margins (Rs/Qt)
Kabuli chickpea (whole grain)	8.43	48.62	409.86	96.07	19.47	294.32
Other varieties (whole grain)	8.07	49.46	399.14	96.07	19.47	283.6
Split grain (dal)	13.89	55.77	774.64	96.07	19.47	659.1
Flour	19.49	58.21	1134.51	96.07	19.47	1018.97

Table 20: Quality characteristics preferred by retailers

For chickpea



Traits	Whole grain – Kabuli (modal rank )	Whole grain -others (modal rank )	Split grain (modal rank)	Flour (modal rank)
Bigger grain size	2	-	2	-
Color (white/red/brown)		-	4	2
Better taste	1	-	1	1
Pest, disease free	6	4	5	-
Cooking time	3	1	5	-
Keeping quality	4	2	6	-
More nutrient content	6	3	1	1
Cleanliness	5	-	3	2

Table 21: Constraints and suggestions of the retailer

Constraint/suggestion	Frequency
Clean produce	3
Consumers not Interested in general stores	8
Fixed costs and variable costs are Increasing	8
High price fluctuations	9
Number of shops Increasing from 2 To 3 years	1
Roads are very Inconvenient for transport	1
Selling the product Is a problem	1
Storage problem	9

Note: Group constraints and suggestions under common headings such as transport, infrastructure or credit, and report those.

Table 22: Variation of price

Quality grade	Range of price variation (Rs/Qt)
Best quality	10-150
Medium quality	5-150
Poor quality	10-180

Table 23: Additional considerations for fixing the price

Factors considered	Frequency
Rate for which he bought	23
Transport costs	23
Demand for that production	22
Profit	19
Fluctuations in price	14
Interest on borrowed money	1

## **Module 5: Consumers**

Table 24: Household consumption

Type	Quantity	Home	Wages	Purchased	Average
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	required (kg/year )	produced (kg/year)	or gifts (kg/year )	(kg)	purchase price (Rs/kg or litre)
Kabuli chickpea (whole grain)	7.92	5.5	.15	2.57	28.75
Other varieties (whole grain)	8.25	3.66	0.9	5.19	25.4
Split grain (dal)	34.31	7.06	0	21.92	29.89
Flour	18.35	.33	0	18.32	29.6

Table 25: Source of purchase

Type	Percentage of respondents			
	Village shop	Weekly market	Whole sale market	Super market
Kabuli chickpea (whole grain)	-	-	3	-
Other varieties (whole grain)	2	-	12	1
Split grain (dal)	12	10	18	4
Flour	14	10	18	4

Table 26: Ranking of top three quality characteristics  
For chickpea

Rank	Kabuli whole grain		Desi chickpea/		Split grain		Flour	
	Quality trait	Respo ndents( No)	Qualit y trait	Respo ndents (No)	Qualit y trait	Respo ndents (No)	Quality trait	Respo ndents (No)
1	Better taste	4	Better taste	8	Better taste	20	Better taste	22
2	Bigger grain size	4	Bigger grain size	6	Bigger grain size	13	Clour	7
3	Keepin g quality	3	Less Cooki ng time	7	Ceanli ness	7	Keeping quality	7

Table 27: Availability of preferred quality characteristics

Type	Number who said they got their preferred characteristics
Kabuli chickpea (whole grain)	6
Other varieties (whole grain)	6

Split grain (dal)	18
Flour	18

Table 28: Preferred quality traits in new products  
For chickpea

Whole grain Kabuli				Whole grain desi			
Traits	Modal rank	Range of premium (Rs/kg)	Percentage of consumers who assigned modal rank	Traits	Modal rank	Range of premium (Rs/kg)	Percentage of consumers who assigned modal rank
Big Size Grain	1	26.45	6	Better taste	1	28.5	17
Colour	2	26.33	6	Big Size Grain	2	27	5
Better taste	3	26.5	4	Colour	3	29	5
Good quality	4	27	4	Pest free	4	25.5	5

For chickpea

Split grain				Flour			
Traits	Modal rank	Range of premium (Rs/kg)	Percentage of consumers who assigned modal rank	Traits	Modal rank	Range of premium (Rs/kg)	Percentage of consumers who assigned modal rank
Better taste	1	28.5	11	Better taste	1	28.5	8
Colour	2	27	6	Colour	2	27	6
Good quality	3	29	6	Good quality	3	29	5
Pest free	4	25.5	5	Pest free	4	25.5	5

Table 29: Quality characteristics that fetch a higher price

Split grain		Flour	
Quality trait	Percentage of respondents	Quality trait	Percentage of respondents
Better taste	39	Better taste	37
Cleanness	37	Cleanness	34
Keeping quality	32	keeping quality	30
Color(appearance)	15	Color	26
Less cooking time	Total	Protein content	4

Size	23	less cooking time	1
Shape	8	Brand name	1
Protein content	4	-	-
Brand name	3	-	-

Table 30: Constraints and suggestions of the customer

Constraint/suggestion	Percentage
Adding admixtures	17
High prices	9
Cleanliness	5
No uniform colour size	4
Less quality product in village shops	1
More cooking time	1
No taste	1

Note: Group constraints and suggestions under common headings such as transport, infrastructure or credit, and report those.