

Market survey analysis of chickpea for Karnataka state in India

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MODULE-1: COMMISSION AGENT

Table-M1: Annual turnover

The annual turnover (Table-M1) revealed that a large quantity of produce of 620 tons was handled per commission agents in Gulbarga when compared to only 145 tons in Dharwad district. Both the number of commission agents and the volume produce handled were more in Gulbarga district. The overall annual turnover for both districts together indicated that on an average 430 tons was handled by each commission agent.

Table-M2: Contractual arrangement

The overall contractual arrangement with the farmers showed (Table-M2) that 45.00 % of the commission agents practiced such an agreement. While undertaking such an arrangement 35 % of them extended both credit and inputs needed and another 10 % provided credit required by the farmers during the cropping season. Generally the time of contacting farmers adopted by commission agents in 40 % cases was in the middle of the crop season and in another 5 % cases only after the crop harvest. The practice of contractual arrangement by nearly 50 % of the commission agents revealed the presence of an unhealthy practice where farmers even now depend on them for credit and essential inputs. The comparative picture between districts showed that the contractual arrangement by commission agents was extensively practiced in Gulbarga (66.67 %) when compared to Dharwad (12.50 %). Nearly 8.33 % of them in Gulbarga extended credit facility and the remaining 58.33 % provided inputs along with credit to the farmers. The time of contacting was generally in the middle of the crop

season (66.67 %). As against this, only 12.50 % in Dharwad district provided credit and the contacting time was generally after the harvest.

Table-M4: Timing of payments and interest on delayed payments

Timing of payments and interest on delayed payments furnished in Table-M4 indicated that across districts majority (80.00 %) of them made payment on the sale proceeds immediately after buying. However, no interest is paid on delayed payment practiced among 20 per cent traders.

Table-M5: Quality characteristics for buying chickpea varieties

Prominent quality characteristics considered by the commission agents for handling/buying Kabuli variety of chickpea (Table-M5) were the cleanliness and bigger grain size as indicated by highest Garrett scores (49.83 and 45.29) followed by uniformity (26.58). While, in case of other varieties the cleanliness (46.54) topped among the traits followed by bigger grain size and uniformity. The pest and disease free produce was considered as the next important quality trait in handling the produce of Kabuli (20.13) and other varieties (16.58). The preferences for other traits such as colour, taste, and recovery rate were not prominent. Similarly, the modal rank showed highest preference for cleanliness, bigger grain size, uniformity and pest and disease free produce in case of Kabuli and almost similar preference was recorded for the produce of other varieties. The willingness to pay extra price for the produce for various preferred traits ranged between Rs. 1.90 to 3.00/kg.

Table-M6: Price variation

The overall average price for best, medium and poor quality produce was ranged between Rs. 2013 and Rs. 1604 per quintal (Table-M6). There was also a significant difference in the minimum and maximum price. A comparative price difference between the districts for different quality produce was also observed and was substantially high in Gulbarga district when compared to Dharwad.

Table-M7b: Crops traded/handled

Crops traded/handled (Table-M7b) by commission agents showed that produce of numerous crops were being handled by them and while chickpea was handled by all the commission agents in both the markets. It was also observed that a large proportion of the commission agents in both the districts handled greengram, blackgram sorghum, redgram and groundnut crops. The other crops handled were maize, safflower, wheat, cotton, pigeonpea, sunflower and soybean. There was a greater diversity in the crops handled by commission agents in Dharwad when compared to Gulbarga.

Table-M7: Purchase price

The results in Table-M7 revealed the total value of the produce handled by the commission agents, the share of chickpea crop in the total turnover and amount of commission earned. It was evident that of the total value of Rs. 91,06,970 handled by them the chickpea share alone accounted for 22.35 % (Rs. 20,35,408) on which the commission at the rate of 2 per cent on the total value estimated to be Rs.40,708 annually. On an average per quintal commission was found to be at Rs.9.47. The district wise assessment showed a substantially a large quantity of chickpea (620 tons) valued at Rs. 1,27,70,667 was handled in Gulbarga alone with an annual commission of earned at Rs.2,55,413 which accounted Rs. 41.20 per quintal of produce when compared to 145 tons handled in Dharwad with a total value of Rs. 12,86,986 and a total commission of Rs. 25,740. However, it was observed that the share of chickpea crop was maximum at 41.25 % in the total value of the produce handled in Dharwad district.

Table-8: Margins (TEXT AND TABLE TO BE FINALISED)**Table-8a: Items of fixed cost for chick pea**

The average annual fixed costs incurred were apportioned for chickpea by each commission agent (Table-8a) and was worked out to be Rs. 21829.80. This was incurred towards salaries, rent for building/premises, communication and other miscellaneous expenses. The overall fixed cost per quintal for both markets together was Rs. 5.08 and of which the

salaries accounted largest proportion of 53.54 % followed by rent for building/premises (29.53%) and communication expenses (13.58 %). Interestingly, it was also found that fixed cost/quintal of the produce handled was lowest at Rs. 1.38 in Gulbarga district due to economies of scale as a result of large volume of produce handled. While, it was highest at Rs. 31.90/quintal in Dharwad.

Table-8b: Items of Variable Cost

Similarly, variable costs were apportioned per quintal of chickpea (Table-8b) and was incurred towards market fee, commission agent charges, bagging etc. The overall variable cost for both markets together was Rs. 112.98/q. Of this cost, market fee (Rs. 49.24/q) and commission agent charges (Rs. 42.36/q) shared largest proportion followed by bagging (Rs. 11.56/q) and labour expenses (Rs. 8.94/q). Almost a similar trend was observed across the districts except for bagging cost in Gulbarga market which was lowest at Rs. 4.20/q.

Table-9a: Constraints faced by Commission Agents

The prime constraints faced by commission agents (Table-9a) in both the markets were the presence of high price fluctuations (45.00%) and the labour problems (30.00%). Among the other problems, high competition and lack of adequate arrivals in to the market were quoted as constraints in Dharwad district.

Table-9b: Suggestions of Commission Agents

They also suggested several measures (Table-9b) towards improving the efficiency in marketing of crops. The presence of effective price policy was advocated by 20.00% of the commission agents. The compulsory trading in APMC premises, control of price fluctuations and improvement in tender bidding system were suggested by 25 % of the commission agents. From the responses it could be implied that majority of the commission agents were comfortable with the existing system of trading in agricultural produce.

MODULE-2: TRADER

Table-1: Annual turnover by traders

The annual turnover (Table-1) of quantity traded revealed that a large quantity of produce was traded by the traders in Gulbarga. The quantity produce traded per trader in Gulbarga was 425 tons from 15 villages compared to 215 tons that in Dharwad from 24 villages. The overall annual turnover for both districts together was 320 tons/trader and roughly covered about 19-20 villages.

Table-2: Contractual arrangement by trader

The contractual arrangement practiced by traders indicated that (Table-2) when analysed for both districts together 41.67 % of them practiced it. While practicing it 33.33% of them extended both credit and inputs needed and another 8.33% provided credit required by the farmers during the cropping season. Generally the time of contacting of farmers by traders in 33.33% cases was in the middle of the crop season and in another 8.33% there was already a contact between farmers and the traders before crop season. The practice of contractual arrangement by traders by it self showed presence of a strong linkage of farmers and traders for inputs and credit requirements. The comparative picture between districts showed of high contractual arrangements and extensively practiced by 75.00 % of the traders in Gulbarga. Among them 66.67 % provided both essential inputs and the credit required and 8.33 % extended credit facility to the farmers. The time of establishing contact was generally in the middle of the crop season by 58.33 % traders. However Contractual arrangement of traders was not very common feature in Dharwad.

Table-3: Timing of payments and interest on delayed payments by traders

Mode of payment and interest on delayed payments by traders is shown in Table-3. Overall for both districts indicated that majority (87.50%) of them made payment on the sale proceeds immediately after buying. However, 12.50% traders settled payments some time after

buying for which no interest was paid on delayed payment. Similar trend was noticed in each district.

Table-4: Premium price traders are willing to pay for different characteristics

Prominent quality characteristics considered by the traders and their willingness to pay extra price is depicted in Table-4. High recovery rate, colour, and better taste were the most sought characteristics for which the traders were willing to pay premium price in the range between Rs. 2.50 to 3.00/kg of produce. The other traits of premium price ranging between Rs. 2.00 to Rs. 2.50/kg were bigger grain size, cleanliness uniformity and pest and disease free produce. The overall extra price the trader willing to pay for different desired traits was Rs. 2.29/kg. The premium price range quoted for different traits in Dharwad was relatively higher than in Gulbarga and the average for all traits put together was found to be at Rs. 2.59/kg.

Table-5: Price variation

The overall average price for best (A-Grade), medium (B-Grade) and poor (C-Grade) quality produce ranged between Rs. 1084 and Rs. 1845 per quintal (Table-5) and in addition there was also a significant difference in the minimum and maximum price in each grade of produce. A comparative price difference between the districts for different quality produce was also observed. The minimum, maximum and average price levels in Gulbarga district for produce of all three quality grades were substantially larger than were prevailed in Dharwad.

Table-6: Crops traded by traders

The crops traded by the traders (Table-6) showed that produce of numerous crops were being handled by them and while, the chickpea was handled by all the traders in both the districts. It was also observed that 50 to 67 % of the traders in traded green gram, sorghum, red gram, and black gram crops and wheat and maize were traded by 37.50 % and 25.00 % of them respectively in both the districts together. There was a greater diversity in the crops traded in Dharwad when compared to Gulbarga. Large proportion of them involved in trading of pulses in

Gulbarga as the district is known as the pulse bowl of the state. Similarly, wheat and maize were traded by a large proportion of the traders along with cotton and soybean in Dharwad.

Table-7: Purchase price

Table-8: Margins (Both these Tables-7 and 8 are to be finalised)

Table-8a: Items of Fixed Cost

The average annual fixed costs incurred were apportioned for chickpea for each trader (Table-8a) and was worked out to be Rs. 502473.96. This was incurred towards salaries, rent for building/premises, communication and other miscellaneous expenses. The overall fixed cost per quintal for both markets together was Rs. 161.22 and of which the salaries accounted largest proportion of 70.40 % followed by rent for building/premises (23.30 %) and communication expenses (4.35 %). Interestingly, it was also found that the fixed cost/quintal of the produce traded was lowest at Rs. 43.33 in Gulbarga district due to economies of scale as a result of a large volume of produce traded by them. While, it was largest at Rs. 132.36/quintal in Dharwad.

Table-8b: Items of Variable Cost

Similarly, variable costs were apportioned per quintal of chickpea (Table-8b) traded and was incurred towards transportation, commission agent charges, market fee, bagging, labour and licence fee. The overall variable cost for both markets together was Rs. 212.65/q. Of this cost, transportation was largest at Rs. 105.05/q followed by commission agent charges (Rs. 46.64/q), market fee (Rs. 37.59/q), bagging (Rs. 13.69/q), labour expenses (Rs. 9.00/q) and licence fee (Rs. 0.68). Almost a similar trend was observed across the districts w.r.t. variable costs.

Table-9a: Constraints faced by traders

The various constraints faced by traders (Table-9a) in both the markets were the presence of high price fluctuations (54.17 %) and the problem of labour (33.33 %) in handling various marketing activities and uncleaned produce (20.83 %). The other problems reported

such as of high transportation cost, lack of produce coming to the market, adulteration, and competition etc. were not very significant.

Table-9b: Suggestions of traders

They also suggested several measures (Table-9b) towards improving the efficiency of marketing of crops. The traders in Dharwad district suggested for compulsory trading of produce in APMCs (58.33 %) and control of price fluctuations (33.33 %). A small proportion of the traders in Dharwad suggested towards improvement in storage facility, better transport, and for adoption of tender system. While in Gulbarga district, suggested for a change in the price policy (41.67 %).

MODULE-3: PROCESSOR

Table-10: Processing capacity

The results in Table-10 on annual processing capacity indicated that the average capacity utilisation of dal processing units was found to be 25.85 % (280 tons) of its total capacity of 1083.33 tons and that of flour mill was 100 % (1780 tons). However, the average quantity of crop processed was 134.72 tons and 200 tons of by dal and flour, respectively. Of the total value of dal (Rs. 2,33,58,333) processed 16.67 % was the share of the chickpea crop and similarly, 35.00% of the total value (Rs. 44,00,000) processed accounted the chickpea flour. The recovery percentage of main product-dal in the whole grain was 75.00 % and that in respect of flour was 78.00 %. The respective recovery rate were 13.33 % and 18.00% in respect of for by-products of dal and flour.

Table-11: Sources of grain for processing

The results on different sources of chickpea grain for processing (Table-11) was mainly by private agency from Tamil Nadu that supplied 2000 tons of grains per year to the flour processing unit in Dharwad district at a price of Rs. 1900/q. On the other hand, the dal processing units in Gulbarga district received the grain supply at a varying price that ranged between Rs.1650 to Rs.2433/q and the private local trader from Gulbarga supplied major

quantity (1650 t/year) followed by trader from Chittapur (1200 t/year) and the remaining (100 t/year) through the commission agents operating in the markets of Gulbarga district.

Table-12a: Details of sales of main-product by type of users

Table-12b: Details of sales of by-product by type of use

The Tables 12a and 12b provided the details on sales of main and by-products by the processors to different of users. The entire chickpea flour processed by each unit in Dharwad sold through the retailers outlets (100 q) at an average price of Rs. 3000/q. However, in Gulbarga the split grain (Dal) processed was marketed directly to the consumers (20,000 q) and to the wholesale market (16270 q) at an average price of Rs. 3500 and 3110, respectively. The retailing price was higher than the wholesale price. On the other hand, fine by-product (husk) produced in Dal making was generally sold to the farmers, local traders and others. About 238.33 quintal of by-product was sold to the users as husk at an average price of Rs. 408.33/q and another 210 quintal sold at an average price of Rs. 325/q to other users.

Table-13: Turnover costs of processors

The turnover costs of processors and their margins (Table-13) revealed that gross margin in Gulbarga was largest for the split grain (Dal) at Rs. 6190/t when compared to flour which was found to be Rs. 3000/t. Among the costs the fixed cost/ton of flour processing in Dharwad was highest at Rs. 58.80 when compared to Rs. 2.50/t in case of split grain in Gulbarga. The variable costs accounted Rs.1304/t in Dharwad and the same in Gulbarga accounted at Rs.1233/t. The net margins realised followed the similar trend and was highest for Gulbarga at Rs. 4955 and Rs. 1637/t in Dharwad.

Table-14: Quality characteristics for processing-Garrett Scores

The Garrett scores and premium price worked out on quality characteristics (Table-14) chickpea for processing and indicated that uniformity (57) and bigger grain size (44) were the most preferred traits followed by cleanliness (28) for processing into flour in Dharwad. However, no premium price was quoted by them. While, cleanliness (64.83) and bigger grain size (59.67)

were the traits preferred for processing into split grain (Dal) in Gulbarga and the price quoted was between Rs.25 to 35.33/kg.

Table-15: Range of price variation (Rs/qt)

The range of price variation for different quality grades for Dal and flour is presented in Table-15. The best quality grain of Grade-A attracted a very high price of Rs.3400/qt followed by medium quality (Grade-B) at Rs.3100 and Grade-C with poor quality quoted Rs.2800/qt in Dharwad used for flour. Similar trend of price variation was observed for grain used for Dal making for different grade qualities and it ranged from Rs. 3333.33 to Rs. 2633.33/qt.

Table-16a: Constraints of the processors

Among the labour problems (Table-16a), high labour wages (33.33%) and labour availability (50.00 %) ranked as the prime constraints. Absence of suitable price policy was expressed by 66.67 % processors followed by poor marketing infrastructure (33.33%).

Table-16b: Suggestions of the processors

About 33.33 % processors suggested measures (Table-16b) towards improving the processing of chickpea crop and were related to provision of proper market infrastructure and appropriate and uniform price policy.

MODULE-4: RETAILER

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

Quantity of chickpea purchased from different sources by retailer is presented in Table-17. It was observed that the retailers depended on various agencies such as whole sale market, processors super market and others for different types of chickpea products. Of the total quantity of 119.25 quintals of chickpea dal purchased 52.65 % bought from whole sale market followed by 30.75% from processors. The dependence on other (11.35%) sources and super market (5.24%) was less. In case of chickpea flour the total quantity purchased was only 12.29 quintals of which a large proportion (47.11%) of it was from other sources while, 24% to 29%

was from processors and the whole sale market, respectively. Kabuli chickpea (whole grain) was the second largest quantity (35.71 q) purchased after chickpea dal where, 39.09% was from other sources, and another 36.40% and 24.50% was from whole sale market and processors. Of the other chickpea varieties (whole grain), nearly 50.00% of it was purchased from the whole sale market. The analysis of total quantity (179.96 quintals) purchased from different sources showed that the retailers depended whole sale market (47.58%) followed by over 20.00% processors and others. The average price per quintal varied between Rs. 2275 to Rs. 2526.40 for different types of products.

Table-18: Total sales of crop products per year

The average quantity sold per annum by retailers (Table-18) revealed that nearly 43,189 tons of chickpea products were sold in the market to the consumers. Of this, Kabuli (whole grain) sales alone accounted a major proportion (47.93%) followed by chickpea dal (27.55%), flour (12.22%) and other varieties (whole grain) to the extent of 12.30%. The average per kg price was more for chickpea dal and flour (Rs.32.52 and Rs.34.50, respectively). Kabuli (whole grain) fetched lowest price of Rs 21.17/kg.

Table-19: Margins for the retailers (Table & Text to be prepared)

Table-20a: Quality characteristics preferred by retailers for chickpea varieties

Quality characteristics preferred by retailers for chickpea varieties (Table-20a) showed that there was no strong preference as such and this was indicated by low Garrett scores and modal rank for different traits. However, bigger grain size with a score of 18.25 was the most preferred trait w.r.t. Kabuli-whole grain. Cleanliness (Garrett score of 16.96) was a preferred trait in case of other varieties-whole grain. On the other hand the retailers preferences to split grain was high towards cleanliness (GS-49.00) followed by bigger grain size, keeping quality and better taste. This was also supported by modal ranks w.r.t these traits. Similar quality preference for cleanliness (GS-17.79) was observed in case of flour.

Table-21a: Constraints of the retailers

Among the constraints (Table-21a) infrastructure was a severe constraint expressed by 62.50% retailers followed by marketing constraints (58.33%) related to presence of high price fluctuation, and lower demand. Further, they suggested (Table-21b) for improvement of facilities in the marketing of the produce and towards improvement in the marketing infrastructure.

Table-21b: Suggestions of the retailers**Table-22: Variation of price**

The retailers also expressed of the presence of high price variation (Table-22) for different quality grades of chickpea in the market. Such variation was very high in case of Grade-C produce between Rs. 1000 to Rs. 3000/qt followed by 166.67% variation (Rs. 1500 to Rs. 4000/qt) in Grade-B and 150% variation (Rs. 2000 to Rs. 5000/qt) in Grade-A produce.

Table-23: Additional considerations for fixing the price

They also advocated for additional considerations to be accounted while fixing the price (Table-23) such as transport cost (100.00%), the purchase price (70.83%), and profit margin (50.00%). In addition to these factors also suggested to take into account price fluctuation and demand conditions in the market.

MODULE-5: CONSUMER**Table-24a: Household consumption in rural area (per family/year)**

The results on consumption pattern of chickpea by households in the rural and urban areas are presented in Tables 24a and 24b. The average quantity consumed per annum was larger (87.81 kg) by households in rural area than in the urban area (60.89 kg). The break up of different type of products consumed in rural area showed that quantity consumed of Kabuli (whole grain) chickpea was in large quantities (50.53 kg) whether home produced, obtained as wage earning or purchased followed by split grain (23.94 kg). While, in urban areas split grain (Dal) was consumed in large quantities (23.66 kg) followed by Kabuli (whole grain) chickpea

(13.66 kg). It was also observed that of all types of products consumed the home produced accounted 51.92 % and 44.52% was purchased in rural area. While in case of urban area 39.63 % of the quantity consumed was home produced and 53.93% was purchased from the market. The average price per ka of different types of products was almost uniform for various product types and ranged between Rs. 21 to Rs. 38.56/kg in rural area and Rs. 22.11 to Rs. 36.99/kg in urban area.

Table-24b: Household consumption in urban area (per family/year)

Table-25a: Source of purchase in rural area

The analysis of sources of purchase of chickpea in rural and urban areas (Tables 25a and 25b) indicated that majority of the rural consumers (21.88%) purchased Kabuli (whole grain) from other places and a small proportion (3.13%) from super market as they were not accessible to such markets. Similar trend was observed in case of split grain and flour purchase where 12.50% and 3.13% of them purchased it from other places and super market, respectively. On the contrary, in urban area the popular sources of Kabuli-whole grain for consumption were the other places (25.00%) followed by super, wholesale and weekly markets. Similar trend was observed in the urban area for split grain and flour purchase where majority of them relied on the other places and super market. However, sources of purchase of chickpea products for consumption purpose were more diversified in urban area than in rural area.

Table-25b: Source of purchase in urban area

Table-26a&b: Ranking of top three quality characteristics preferred by consumers

The quality preferences of rural and urban consumers analysed (Tables 26a and 26b) showed that they were much satisfied with the available products for consumption as a result of this the proportion of consumers for each trait in different product types was less. However, 12.50% of them expressed bigger grain size as the most preferred trait w.r.t. Kabuli type whereas only 3.13% to 9.38% of the consumers preferred quality traits like cleanliness, colour and bigger grain size in case of split grain. Similar trend was observed w.r.t. different traits for chickpea flour.

On the contrary, a large proportion of the urban consumers had their preferences to various quality traits of consumption for different product types. In case of Kabuli-whole grain chickpea, 21.88% to 28.13% of the consumers had preference for grain colour, cleanliness and pest and disease free products. Similar trend was found in case of Desi chickpea (whole grain) where 15.63% to 21.88% of them had preference for bigger grain size, pest and disease free and better taste.

In case of split grain and flour products a large proportion of the urban consumers had particular preferences for different traits compared to the rural ones. It was observed that grain colour (46.88%), pest and disease free product (43.75%) and low price (37.50%) were the required traits in case of split grain. In the case of chickpea flour better taste (43.75%), pest & disease free (34.38%) product, and good keeping quality (31.25%) were the preferred quality traits.

Table-27: Availability of preferred quality characteristics

The availability of preferred (Table-27) quality characteristics in the products showed that 54.69% of the consumers opined that they got their preferred characteristics in Kabuli chickpea-whole grain consumed followed by 42.19% and 37.50% consumers in respect of split grain (Dal) and chickpea flour, respectively. However, only 12.50% in the case of other varieties (whole grain) were satisfied and got their preferred traits in its consumption.

Table-28: Preferred quality traits in new products-Garrett scores (To be prepared)

Table-29a: Quality characteristics that fetch a higher price-Rural

The quality characteristics that fetch a higher price according to rural and urban consumers (Tables 29a and 29b) indicated that nearly 50% of them in the rural area felt bigger grain size and cleanliness as the prime factors that influence split grain to fetch a higher price followed by better taste, keeping quality and brand name. In case of chickpea flour, the single most important factor was the cleanliness (43.75%) followed by keeping quality, better taste, flour colour and the brand name.

On the contrary to what was indicated by rural consumers, it was observed that the urban consumers had strong responses towards quality characteristics that fetches higher price. As many as 75.00% , 68.75 %, 59.38% and 40.63% consumers attributed cleanliness, bigger grain size, better taste and colour (appearance) of the grain as factors that fetch higher price, respectively. The other important traits of split grain were keeping quality and brand name. Similarly, the chickpea flour traits that attracted higher price were colour/appearance (56.25%), cleanliness (53.13%), keeping quality (40.63%), better taste (37.50%) and brand name (31.25%). According to them protein content, less cooking time and shape of the grain were not influencing much on the price.

Table-29b: Quality characteristics that fetch a higher price-Urban

Table-30a: Constraints of the consumers

Table-30b: Suggestions of the consumer

Among the constraints (Table-30a) the presence of high price and its fluctuation was the major one among rural (40.63%) and urban (62.51%) consumers. While in case of urban consumers problems in the marketing related to malpractices by intermediaries (37.50%) and adulteration and uncleaned flour (18.75%) were the major ones. The consumers also suggested (Table-30b) for the supply of various chickpea products at a reasonable price and was expressed by urban (37.51%) and rural (15.63%) consumers.

TL2-Chickpea-Karnataka-Marketing Tables

Table-1: Sample of Market Functionaries

District → Taluka →	Dharwad			Gulbarga			Overall
	Dharwad	Navalgund	Total	Gulbarga	Chittapur	Total	
Market Functionaries ↓							
1. Commission Agent	6	2	8	6	6	12	20
2. Trader	6	6	12	6	6	12	24
3. Processor	0	1	1	3	3	6	7
4. Importer/Exporter	0	0	0	0	0	0	0
5. Retailers	6	6	12	6	6	12	24
6. Consumers	16	16	32	16	16	32	64
Total	34	31	65	37	37	74	139

MODULE-1: Commission Agent

Table-MC1: Annual turnover

Particulars	Dharwad	Gulbarga	Overall
No. of commission agents	8	12	20
No. of villages covered	131	281	412
Total annual turnover (t)	1160	7440	8600
Average annual turnover (t)	145	620	430

Table-M2: Contractual arrangement

Particulars	Dharwad	Gulbarga	Overall
a) No. of CA with prior contractual arrangements	1 (12.50)	8 (66.67)	9 (45.00)
b) Facilities provided by CA to farmers			
• Credit	1 (12.50)	1 (8.33)	2 (10.00)
• Credit and inputs	0	7 (58.33)	7 (35.00)
c) Time of contacting farmers			
• Middle of the crop season	0	8 (66.67)	8 (40.00)
• After harvest	1 (12.50)	0	1 (5.00)
	8 (100.00)	12 (100.00)	20 (100.00)

Table-M4: Timing of payments and interest on delayed payments

Particulars	Dharwad	Gulbarga	Overall
a) Timing of payment			
• Immediately after buying	5 (62.50)	11 (91.67)	16 (80.00)
• Not immediately after buying	3 (37.50)	1 (8.33)	4 (20.00)
➤ After 2 weeks			
➤ Between 2-4 weeks			
➤ After 1 month			
b) Average rate of interest paid	0	0	0
Total No. of CA	8 (100.00)	12 (100.00)	20 (100.00)

Table M5: Quality characteristics for buying chickpea varieties

Traits	Kabuli-GS	Modal rank	% of traders who assigned modal rank	Other varieties-GS	Modal rank	% of traders who assigned modal rank	Range of premium (Rs./kg)
Cleanliness	49.83	1	50.00	46.54	1	54.17	2.24
Bigger grain size	45.29	1	50.00	23.42	1	29.17	2.43
Uniformity	26.58	2	45.83	22.71	2	41.67	2.24
Pest and disease free	20.13	3	37.50	16.58	3	20.83	2.11
Colour (White/Red/Brown)	8.67	2	12.50	4.50	2	4.17	2.60
Better taste	2.83	2	4.17	2.83	2	4.17	2.50
High recovery rate	2.21	4	4.17	2.21	4	4.17	3.00
Smaller grain size	0.00			9.42	3	16.7	1.90
Shelling %	0.00			0.00			
More oil content	0.00			0.00			

Table-M6: Price variation

(Rs/q)

Quality / Grade	Dharwad			Gulbarga			Overall		
	Min	Max	Average	Min	Max	Average	Min	Max	Average
Best quality (A)	1500	2000	1819	2000	2300	2142	1500	2300	2013
Medium quality (B)	1000	1800	1375	1900	2250	2037	1000	2250	1772
Poor quality (C)	1000	1500	1175	1800	2100	1889	1000	2100	1604

Table-M7b: Crops traded/handled

Crop	Dharwad	Gulbarga	Overall
Chickpea	8 (100.00)	12 (100.00)	20 (100.00)
Greengram	6 (75.00)	11 (91.67)	17 (85.00)
Blackgram	4 (50.00)	11 (91.67)	15 (75.00)
Sorghum	3 (37.50)	11 (91.67)	14 (70.00)
Redgram	1 (12.50)	12 (100.00)	13 (65.00)
Groundnut	3 (37.50)	1 (8.33)	4 (20.00)
Maize	3 (37.50)		3 (15.00)
Safflower	2 (25.00)	1 (8.33)	3 (15.00)
Wheat	3 (37.50)		3 (15.00)
Cotton	2 (25.00)		2 (10.00)

Table-M7: Purchase price

Crop	Dharwad	Gulbarga	Overall
Quantity (t/year)	145	620	430
No. of commission agents	8	12	20
Average price (Rs/ton)	21,517	21,126	21,179
Total value of the produce handled (Rs)	31,19,965	1,30,98,120	91,06,970
Share in total turnover (%)	41.25	9.75	22.35
Value of chickpea handled (Rs)	12,86,986	1,27,70,667	20,35,408
Commission on chickpea earned (%)	2	2	2
Commission on chickpea earned (Rs)	25,740	2,55,413	40,708
Commission on chickpea earned (Rs/q)	17.75	41.20	9.47

Table 8: Margins : TEXT AND TABLE TO BE FINALISED**Table-8a: Items of fixed cost for chick pea**

Items	Dharwad	Gulbarga	Overall
Rs/CA/Yr:			
Salaries	15262.50	6101.88	11700.23
Rent for building/premises	17685.94	1909.38	6459.15
Communication Expenses	12271.88	219.78	2961.93
Others	1031.25	352.63	708.50
Total	46251.56	8583.66	21829.80
Rs/q:			
Salaries	10.53 (33.01)	0.98 (71.01)	2.72 (53.54)
Rent for building/premises	12.20 (38.24)	0.31 (22.46)	1.50 (29.53)
Communication Expenses	8.46 (26.52)	0.04 (2.90)	0.69 (13.58)
Others	0.71 (2.23)	0.06 (4.35)	0.16 (3.15)
Total	31.90 (100.00)	1.38 (100.00)	5.08 (100.00)

Table-8b: Items of Variable Cost

(Rs/q)

Items	Dharwad	Gulbarga	Overall
Market fee	36.31	58.10	49.24
Commission agent charges	43.03	42.25	42.36
Bagging	20.75	4.20	11.56
Hamali (Labour) Expenses	6.83	10.09	8.94
Licence fee	0.85	0.65	0.63
Others	0.00	0.16	0.23
Transportation	0.07	0.02	0.02
Total	107.84	115.46	112.98

Table-9a: Constraints faced by Commission Agents

Constraints	Dharwad	Gulbarga	Overall
Price fluctuations	37.50	50.00	45.00
Labour problem	25.00	33.33	30.00
High competition	25.00		10.00
Lack of/less produce coming to market	25.00		10.00
Bidding tender problems	12.50		5.00
Delay in payments	12.50		5.00
Loan recovery problem		8.33	5.00
Ungraded produce	12.50		5.00
Unsecured business	12.50		5.00
Transportation risk in long distance	12.50		5.00

Table-9b: Suggestions of Commission Agents

Suggestions	Dharwad	Gulbarga	Overall
Price policy should be effective	0.00	33.33	20.00
Need to make trading in APMC compulsory	25.00	8.33	15.00
Control price fluctuations	25.00	0.00	10.00
Improve tender bidding system	25.00	0.00	10.00
Encourage farmers to sell in APMC	12.50	0.00	5.00
Grading before trading	12.50	0.00	5.00
Provide good quality seed to farmers	0.00	8.33	5.00
High transportation cost	0.00	8.33	5.00
Provide drainage facility in APMC	0.00	8.33	5.00

MODULE-2: Trader

Table-1: Annual turnover by traders

Particulars	Dharwad	Gulbarga	Overall
No. of CA	12	12	24
No. of villages covered/trader	23.58	15.08	19.33
Total annual turnover (t)	2,580	5,100	7,680
Average annual turnover (t)	215	425	320

Table-2: Contractual arrangement by trader

Particulars	Dharwad	Gulbarga	Overall
d) No. of trader with prior contractual arrangements	1 (8.33)	9 (75.00)	10 (41.67)
e) Facilities provided by trader to farmers			
• Credit	1(8.33)	1(8.33)	2 (8.33)
• Credit and inputs	0	8 (66.67)	8 (33.33)
f) Time of contacting farmers			
• Before crop season	0	2 (16.67)	2 (8.33)
• Middle of the crop season	1(8.33)	7 (58.33)	8 (33.33)
Total no. of traders	12 (100.00)	12 (100.00)	24 (100.00)

Table-3: Timing of payments and interest on delayed payments by traders

Particulars	Dharwad	Gulbarga	Overall
a) Timing of payment			
• Immediately after buying	11 (91.67)	10 (83.33)	21 (87.50)
• Not immediately after buying	1 (8.33)	2 (16.67)	3 (12.50)
➤ After 2 weeks			
➤ Between 2-4 weeks			
➤ After 1 month			
b) Average rate of interest paid	0	0	0
c) Total no. of traders	12 (100.00)	12 (100.00)	24 (100.00)

Table-4: Premium price traders are willing to pay for different characteristics

Characteristics	Dharwad	Gulbarga	Overall
High recovery rate	4.00	2.00	3.00
Colour	2.75	2.00	2.60
Better taste	3.00	2.00	2.50
Bigger grain size	2.68	2.00	2.43
Cleanliness	2.56	2.00	2.24
Uniformity	2.13	2.30	2.24
Pest and disease free	2.47	1.58	2.11
Smaller grain size		1.90	1.90
Overall	2.59	2.00	2.29

Table-5: Price variation

Quality / Grade	Dharwad			Gulbarga			Overall		
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
Best quality (A)	1000	2000	1500	2040	2200	2133	1000	2200	1845
Medium quality (B)	500	1300	915	1900	2175	2075	500	2175	1548

Poor quality (C)	500	1100	695	1975	2100	2055	500	2100	1084
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Table-6: Crops traded by traders

Crop	Dharwad	Gulbarga	Overall
Chickpea	12 (100.00)	12(100.00)	24 (100.00)
Green gram	6 (50.00)	10 (83.33)	16 (66.67)
Sorghum	5 (41.67)	11 (91.67)	16 (66.67)
Red gram	1 (8.33)	12 (100.00)	13 (54.17)
Black gram	1 (8.33)	11 (91.67)	12 (50.00)
Wheat	9 (75.00)		9 (37.50)
Maize	6 (50.00)		6 (25.00)
Sunflower	1 (8.33)	3 (25.00)	4 (16.67)
Cotton	3 (25.00)		3 (12.50)
Soybean	3 (25.00)		3 (12.50)
Groundnut	1 (8.33)	1(8.33)	2 (8.33)
Safflower	1 (8.33)		1 (4.17)
No. of traders	12 (100.00)	12 (100.00)	24 (100.00)

Table-7: Purchase price

Table 8: Margins

Both these Tables-7 an 8 are to be finalised

Table-8a: Items of Fixed Cost

Items	Dharwad	Gulbarga	Overall
Rs/Trader/Yr:			
Salaries	204266.67	123280.00	353741.67
Rent for building/premises	55200.00	46006.67	117094.17
Communication Expenses	22613.33	3439.33	21867.67
Others	8000.00	2417.58	9770.46
Total	290080.00	175143.58	502473.96
Rs/q:			
Salaries	93.20 (70.41)	30.50 (70.39)	113.50 (70.40)
Rent for building/premises	25.19 (19.03)	11.38 (26.26)	37.57 (23.30)
Communication Expenses	10.32 (7.80)	0.85 (1.96)	7.02 (4.35)
Others	3.65 (2.76)	0.60 (1.38)	3.13 (1.94)
Total	132.36 (100.00)	43.33 (100.00)	161.22 (100.00)

Table-8b: Items of Variable Cost

Items	Dharwad	Gulbarga	Overall
Transportation	120.09	84.38	105.05
Commission agent charges	52.01	42.43	46.64
Market fee	44.45	31.82	37.59
Bagging	17.78	8.43	13.69
Hamali (Labour) expenses	6.11	11.17	9.00
Licence fee	0.32	1.00	0.68
Others			
Total	240.76	179.23	212.65

(Rs/q)

Table-9a: Constraints faced by traders

Constraints	Dharwad	Gulbarga	Overall
Price fluctuations	50.00	58.33	54.17
Labour problem	50.00	16.67	33.33
Uncleaned produce	8.33	33.33	20.83
High transportation cost	16.67	8.33	12.50
Lack of produce coming to the market	16.67		8.33
Adulteration		8.33	4.17
Competition	8.33		4.17
No good quality produce		8.33	4.17
Roads are not proper	8.33		4.17
Storage risk		8.33	4.17
Trading is not done compulsory in apmc	8.33		4.17
Ungraded produce	8.33		4.17

Table-9b: Suggestions of traders

Suggestions	Dharwad	Gulbarga	Overall
Make compulsory trading in APMC	58.33		29.17
Price policy should change		41.67	20.83
Control price fluctuations	33.33		16.67
Improve the storage facility in APMC	16.67		8.33
Create better transportation facilities	8.33		4.17
Make provision for tender system	8.33		4.17
Price variation		8.33	4.17

MODULE-3: Processor

Table 10: Processing capacity

Name of the crop	Type of processing	No. of processing units	Average capacity (tons/year)	Average capacity utilization (tons)	Quantity of crop processed (tons/year)	Total value/unit (Rs)	Share of crop in total value (%)	Recovery rate for main product (%)	Recovery rate for by-product (%)
Chickpea	Dal	6	1083.33	280 (25.85)	134.72	23358333	16.67	75	13.33
	Flour	1	1780	1780 (100.00)	200.00	4400000	35.00	78	18
	Overall average	7	1182.86	494.29 (41.79)	103.06	27758333	19.58	75.43	14

Table-11: Sources of grain for processing

Name of the supplier	Dharwad	Average Buying price	Gulbarga	Average Buying price	Overall	Average Buying price
	Qty (t/yr)	(Rs/q)	Qty (t/yr)	(Rs/q)	Qty (t/yr)	(Rs/q)
Shadiram & Sons, Tamil Nadu	2000	1900			2000	1990
Local Trader, Gulbarga			1650	2433	1650	2433
Commission Agent, Gulbarga			100	2400	100	2400
Local Trader, Chittapur			1200	1650	1200	1650
Overall	2000	1900	2950	2414	4950	2350

Table-12a: Details of sales of main-product by type of users

Users	Dharwad		Gulbarga		Overall	
	Qty (q)	Price (Rs/q)	Qty (q)	Price (Rs/q)	Qty (q)	Price (Rs/q)
Consumers			20000	3500	20000	3500
Wholesale market			16270	3110	16270	3110
Retailers	100	3000			100	3000
Overall average	100	3000	16892	3175	14493	3150

Table-12b: Details of sales of by-product by type of use

Use	Dharwad		Gulbarga		Overall	
	Qty (q)	Price (Rs/q)	Qty (q)	Price (Rs/q)	Qty (q)	Price (Rs/q)
Fine by-product (husk)			238.33	408.33	238.33	408.33
Others			210.00	325.00	210.00	325.00
Overall average			231.25	387.5	231.25	387.5

Table 13: Turnover costs of processors

District	Average buying price (Rs/t)	Average selling price of main product (Rs/t)	Average selling price of byproduct (Rs/t)	Gross margins (Rs/t)	Fixed costs (Rs/t)	Variable costs (Rs/t)	Net margins (Rs/t)
Dharwad	19000	22000		3000	58.80	1304	1637
Gulbarga	24143	30333	3875	6190	2.50	1233	4955
Overall	23500	29143	3875	5643	4.82	1243	4395

Table 14: Quality characteristics for processing-Garrett Scores

Traits	Dharwad		Gulbarga		Overall	
	GS-Flour	Premium price (Rs./kg)	GS-Dal	Premium price (Rs./kg)	GS--Flour and Dal	Premium price (Rs./kg)
Cleanliness	28.00		64.83	30.00	59.57	30.00
Bigger grain size	44.00		59.67	32.83	57.43	32.83
Uniformity	57.00		5.17	34.00	12.57	34.00
High recovery rate			14.00	35.33	12.00	35.33
Taste			11.83	33.00	10.14	33.00
Smaller grain size			8.33	35.00	7.14	35.00
Color (White/Red/Brown)			7.33	30.00	6.29	30.00
Pest & disease free			5.17	25.00	4.43	25.00

Table 15: Range of price variation (Rs/qt)

Type of processing	Quality grade	Dharwad	Gulbarga	Overall
Dal	Best quality (Grade-A)		3333.33	3333.33
	Medium quality (Grade-B)		3066.67	3066.67
	Poor quality (Grade-C)		2633.33	2633.33
Flour	Best quality (Grade-A)	3400.00		3400.00
	Medium quality (Grade-B)	3100.00		3100.00
	Poor quality (Grade-C)	2800.00		2800.00

Table 16a: Constraints of the processors

Particulars	Constraint	% to Total
Labour problem	High labour wages	33.33
	Labour availability	50.00
Price policy	Price variation	66.67
Infrastructure	Marketing	33.33

Table 16b: Suggestions of the processors

Particulars	Suggestion	Percentage
Infrastructure	Suitable market for the product	33.33
Policy	Dynamic and uniform price policy	33.33

Module 4: Retailers

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

Product	Whole sale market	Weekly market	Processors	Super market	Others	Total quantity	Average price (Rs/Qt)
Chickpea dal	62.79 (52.65)	0.00	36.67 (30.75)	6.25 (5.24)	13.54 (11.35)	119.25 (100.00)	2515.65
Chickpea flour	3.58 (29.13)	0.00	2.92 (23.76)	0.00	5.79 (47.11)	12.29 (100.00)	2526.40
Kabuli chickpea (whole grain)	13.00 (36.40)	0.00	8.75 (24.50)	0.00	13.96 (39.09)	35.71 (100.00)	2300.00
Other chickpea varieties (whole grain)	6.25 (49.17)	0.00	2.08 (16.37)	0.00	4.38 (34.46)	12.71 (100.00)	2275.00
Total/Average	85.63 (47.58)	0.00	50.42 (28.02)	6.25 (3.47)	37.67 (20.93)	179.96 (100.00)	2458.31

Table 18: Total sales of crop products per year

Product type	Quantity sold (tons/year)	Proportion of share in total turnover	Average price (Rs/Kg)
Chickpea Dal	11896.71	27.55	32.52
Chickpea Flour	5278.75	12.22	34.50
Kabuli (whole grain)	20700.00	47.93	21.17
Other varieties (Whole grain)	5313.13	12.30	25.25
Grand Total	43188.58	100.00	30.72

Kabuli-Whole grain				Other varieties-Whole grain			Split grain			Flour		
Traits	Garrett score	Modal Rank	% of retailers who assigned modal rank	Garrett score	Modal Rank	% of retailers who assigned modal rank	Garrett score	Modal Rank	% of retailers who assigned modal rank	Garrett score	Modal Rank	% of retailers who assigned modal rank
Bigger grain size	18.25	1	20.83	9.71	1	8.33	28.0	1	29.2	4.46	2	4.17
Smaller grain size	0.00			1.04	5	4.17	5.7	4	16.7	0.00		
Colour (White/Red/Brown)	0.00			0.00			12.9	2	8.3	12.46	1	16.67
Better taste	3.04	1	4.17	11.00	1	8.33	27.0	3	25.0	5.75	4	8.33
Pest & disease free	8.83	2	12.50	3.38	2	4.17	22.0	2	16.7	7.67	2	8.33
Cooking time	1.83	3	4.17	6.25	2	8.33	22.2	2	20.8	3.00	1	4.17
Keeping quality	2.08	2	4.17	8.38	2	8.33	27.1	2	25.0	11.92	2	20.83
More nutrient content	0.00			0.00			5.8	1	4.2	0.00		
Cleanliness	12.13	3	12.50	16.96	1	12.50	49.0	1	45.8	17.79	1	20.83

Table 19: Margins for the retailers

Table & Text to be prepared

Table 20a: Quality characteristics preferred by retailers for chickpea varieties

Table 21a: Constraints of the retailers

Broad area	Constraints	Percentage	Percentage
Infrastructure	Road infrastructure	4.17	62.50
	Transportation problem	29.17	
	High transportation cost	29.17	
Marketing	Price fluctuations	29.17	58.33
	Less demand	12.50	
	Preference for dal is decreasing	4.17	
	Adultration	4.17	
	Storage problem	4.17	
	Unclean produce	4.17	
Labour problem	Labour problem	12.50	12.50
Seasonality of the crop	Seasonality of the crop	4.17	4.17

Table 21b: Suggestions of the retailers

Brad area	Suggestions	Percentage	Percentage
Marketing	Demand for the product	4.17	16.67
	Resistant varieties to storage pests	4.17	
	Price variation	4.17	
	Quality awareness to increase the sales	4.17	
Infrastructure	Road infrastructure	4.17	12.50
	Transportation facility	4.17	
	Market Infrastructure	4.17	

Table 22: Variation of price

Quality grade	Range of price variation (Rs/Qt)		% variation in price
	Min	Max	
Best quality (Grade A)	2000.00	5000.00	150.00
Medium quality (Grade B)	1500.00	4000.00	166.67
poor quality (Grade C)	1000.00	3000.00	200.00

Table 23: Additional considerations for fixing the price

Factors	Percentage
Transport costs	100.00
Rate for which he bought	70.83
Profit	50.00
Fluctuations in price	29.17
Demand condition	29.17
Interest on borrowed money	4.17
Clean and Bold	4.17

Module 5: Consumers

Table 24a: Household consumption in rural area (per family/year)

Type	Quantity required (kg/year)	Home produced (kg/year)	Wages or gifts (kg/year)	Purchased (kg/year)	Average purchase price (Rs./kg)
Kabuli chickpea (whole grain)	50.53 (100.00)	23.66 (46.82)	3.13 (6.18)	23.75 (47.00)	24.62
Other varieties (whole grain)	1.88 (100.00)	0.00	0.00	1.88 (100.00)	21.00
Split grain (Dal)	23.94 (100.00)	14.53 (60.70)	0.00	9.41 (39.30)	31.19
Flour	11.47 (100.00)	7.41 (64.58)	0.00	4.06 (35.42)	38.56
Total	87.81 (100.00)	45.59 (51.92)	3.13 (3.56)	39.09 (44.52)	32.00

Table 24b: Household consumption in urban area (per family/year)

Type	Quantity required (kg/year)	Home produced (kg/year)	Wages or gifts (kg/year)	Purchased (kg/year)	Average purchase price (Rs./kg)
Kabuli chickpea (whole grain)	13.66 (100.00)	6.88 (50.37)	0.00	6.78 (49.63)	22.11
Other varieties (whole grain)	13.41 (100.00)	5.53 (41.24)	3.13 (23.34)	4.75 (35.42)	23.00
Split grain (Dal)	23.66 (100.00)	9.06 (38.29)	0.78 (3.30)	13.81 (58.37)	31.64
Flour	10.16 (100.00)	2.66 (26.18)	0.00	7.50 (73.82)	36.99
Total	60.89 (100.00)	24.13 (39.63)	3.91 (6.42)	32.84 (53.93)	32.00

Table 25a : Source of purchase in rural area

(Percentage)

Type	Village shop	Weekly market	Wholesale market	Super market	Other places
Kabuli chickpea (whole grain)	0.00	0.00	0.00	3.13	21.88
Other varieties (whole grain)	0.00	0.00	0.00	0.00	0.00
Split grain (Dal)	0.00	0.00	0.00	3.13	12.50
Flour	0.00	0.00	3.13	3.13	12.50

Table 25b: Source of purchase in urban area

(Percentage)

Type	Village shop	Weekly market	Wholesale market	Super market	Other places
Kabuli chickpea (whole grain)	0.00	3.13	6.25	9.38	25.00
Other varieties (whole grain)	0.00	0.00	3.13	12.50	6.25
Split grain (Dal)	0.00	6.25	9.38	31.25	21.88
Flour	0.00	3.13	6.25	15.63	21.88

Table 26a: Ranking of top three quality characteristics preferred by rural consumers

Rank	Kabuli chickpea (whole grain)		Desi chickpea (whole grain)		Split grain		Flour	
	Quality trait	Respondents (%)	Quality trait	Respondents (%)	Quality trait	Respondents (%)	Quality trait	Respondents (%)
1	Bigger grain size	12.50	Bigger grain size	3.13	Colour	9.38	Better taste	6.25
			Colour	3.13			Colour	6.25
2	Better taste	9.38			Bigger grain size	6.25	Bigger grain size	3.13
	Colour	9.38					Cleanliness	3.13
3	Cleanliness	6.25			Cleanliness	3.13		

Table 26b: Ranking of top three quality characteristics preferred by urban consumers

Rank	Kabuli chickpea (whole grain)		Desi chickpea (whole grain)		Split grain		Flour	
	Quality trait	% respondents	Quality trait	% respondents	Quality trait	% respondents	Quality trait	% respondents
1	Pest & disease free	28.13	Better taste	21.88	Colour	46.88	Better taste	43.75
2	Cleanliness	25.00	Pest & disease free	18.75	Pest & disease free	43.75	Pest & disease free	34.38
3	Colour	21.88	Bigger grain size	15.63	Low price	37.50	Good keeping quality	31.25

Table 27: Availability of preferred quality characteristics

Type	Number who said they got their preferred characteristics	% who said they got their preferred characteristics
Kabuli chickpea (whole grain)	35	54.69
Spilt grain (Dal)	27	42.19
Flour	24	37.50
Other varieties (whole grain)	8	12.50

Table 29a: Quality characteristics that fetch a higher price-Rural

Split grain (Dal)		Flour	
Quality trait	% of respondents	Quality trait	% of respondents
Bigger size of grain	46.88	Cleanliness	43.75
Cleanliness	46.88	Keeping quality	34.38
Better taste	37.50	Better taste	31.25
Keeping quality	37.50	Colour (appearance)	28.13
Brand name	28.13	Brand name	21.88
Colour (appearance)	15.63	Less cooking time	6.25
Shape	9.38	Protein content	3.13
Less cooking time	6.25	Bigger size of grain	0.00
Protein content	0.00	Shape	0.00

Table 29b: Quality characteristics that fetch a higher price-Urban

Split grain (Dal)		Flour	
Quality trait	% of respondents	Quality trait	% of respondents
Cleanliness	75.00	Colour (appearance)	56.25
Bigger size of grain	68.75	Cleanliness	53.13
Better taste	59.38	Keeping quality	40.63
Colour (appearance)	40.63	Better taste	37.50
Keeping quality	37.50	Brand name	31.25
Brand name	31.25	Less cooking time	21.88
Shape	15.63	Protein content	3.13
Less cooking time	12.50	Bigger size of grain	0.00
Protein content	9.38	Shape	0.00

Broad area	Rural consumers		Broad area	Urban consumers	
	Constraints	%		Constraints	%
Price policy	Higher price & its fluctuation	40.63	Price policy	Higher price & its fluctuation	62.51
Marketing	Long distance to market	3.13	Marketing	Malpractices by market intermediaries	37.50
				Adulteration in flour & uncleaned	18.75
Production	Low quality and lack of availability of bold grains	9.38	Production	Low quality and poor taste	6.26

Table 30: Suggestions of the consumer

Broad area	Rural consumers		Broad area	Urban consumers	
	Suggestions	%		Suggestions	%
Price policy	Reasonable price	15.63	Price policy	Reasonable price	37.51
Marketing	Timely availability	3.13	Marketing	Malpractices should be removed	6.26
Production	Develop bigger sized grains	3.13	Production	Good quality	3.13