

Inclusive Study of Jaggery Marketing by Sugarcane Growers of Sitapur District of Uttar Pradesh

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Abstract: The study pertains to the marketing of jaggery in Sitapur district. The main objective of the study is to analyze, socio-economic characteristics of sample respondents to study the disposal pattern, marketing cost, margin, and price spread of jaggery per quintal in different channels of marketing and constraints in production and marketing of jaggery. The results reveal that the socio-economic status of the respondents found to be moderate with primary education, a well economic background, and greater access to all the assets. Economics of jaggery marketing is more profitable in large farms as compared to medium-size farms and small size farms. The maximum producers share in consumer price in channel-I was 92.33 percent. The average producer sale price to the consumer was Rs.3000.00/qtl and the price spread was Rs.230.00/qtl. The sample average for marketing efficiency in channels was 13.04, percent respectively.

The study indicated that there is scope to increase the producer's share in consumer's rupee by making the market more effective so that the number of intermediaries is to be restricted and marketing costs and marketing margins to be reduced. Major constraints in production were found that high cost of labour and less awareness about new technologies among different farms size group followed by a huge price fluctuation was the major marketing constraint in jaggery.

Keywords: Cost, Return, Marketing Channels, Constraints.

1. INTRODUCTION

Gur (Jaggery) is a natural, traditional sweetener made by the concentration of sugarcane juice and is known all over the world indifferent local names. It is a traditional unrefined non-centrifugal sugar consumed in Asia, Africa, Latin America, and the Caribbean.

Containing all the minerals and vitamins present in sugarcane juice, it is known as the healthiest sugar in the world. India is the most extensive producer and consumer of jaggery. Out of total world production, more

than 70% is offered in India. In India, of the 300 Mt of sugarcane produced, 53% is processed into white sugar, 36% into jaggery and khandsari, 3% for chewing as cane juice, and 8% as seed cane. Jaggery and khandsari have withstood competition protecting farmers' interests besides meeting ethnic demands. Processes and types of equipment have been extended for quality solid, liquid, and powder jaggery. Liquescent jaggery has been commercialized. The organic clarificants developed help to retain jaggery as organic food (pandey, 2007).

1.1 Importance of jaggery

Jaggery is far complex than sugar, as it is made up of longer chains of sucrose. Hence, it is digested slower than sugar and releases energy slowly and not impulsively. This replenishes energy for a longer time and is not harmful to the body. But this does not certify it fit for consumption by diabetics because eventually it is sugar. Jaggery also infers a considerable amount of ferrous salts (iron) during its preparation, as it is prepared in iron vessels. This iron is also good for health, particularly for those who are anemic or lack iron. Again jaggery also contains traces of mineral salts (you might have experienced this, that jaggery leaves a hint of salt on tongue) which are very beneficial for the body. These salts come from the sugar cane juice where it is absorbed from the soil. Furthermore, jaggery is particularly good as a cleansing agent. It cleans the lungs, stomach, intestines, and esophagus and respiratory tracts. Those who face dust in their day to day life are highly recommended to take a daily dose of jaggery. This can keep them safe from asthma, cough & cold, congestion in the chest, etc.

Gur is apprehended to produce heat and give prompt energy to a human body. In many parts of India, there is a ritual of attending a glass of water with Gur to welcome the guests. Gur is also used as a cattle feed, in the distillery, medicine manufacturing unit, ayurvedic medicines, ayurvedic sura, and ayurvedic health tonics. Recently Gur has also found a place in confectionary items. A usage of Gur is also seen in the leather and tobacco industries. Furthermore, in cement industries and coal mines, Gur is supplied to the workers to protect them from dust allergies. And at the time of natural calamities, the district authority acquires Gur and distributes it to the victims for various health privileges.

1.2 Nutritional value and uses of jaggery

It is rich in important minerals (Calcium-40-100 mg, Magnesium-70-90 mg, Potassium-1056 mg, Phosphorus-20-90 mg, Sodium-19-30 mg, Iron-10-13

mg, Manganese-0.2-0.5 mg, Zinc-0.2-0.4 mg, Copper-0.1-0.9 mg, and Chloride-5.3 mg per 100 g of jaggery), vitamins (Vitamin A-3.8 mg, Vitamin B1-0.01 mg, Vitamin B2-0.06 mg, Vitamin B5-0.01 mg, Vitamin B6-0.01 mg, Vitamin C-7.00mg, Vitamin D2-6.50 mg, Vitamin E-111.30 mg, Vitamin PP-7.00mg), and protein-280 mg per 100 g of jaggery, which can be made available to the sections to mitigate the dilemmas of malnutrition and undernutrition. The micronutrients present in the jaggery possess antitoxic and anti-carcinogenic attributes. It has a modest amount of calcium, phosphorous, and zinc, so it helps to optimum health of a person along with all its benefits, purifies the blood, and prevents rheumatic afflictions and bile disorders and thus helps to cure jaundice.

Gur is a high-calorie sweetener and as it contains minerals, protein, glucose, and fructose, it is known to be more potent in comparison to white sugar. A good quality Gur contains more than 70% sucrose, less than 10% of glucose and fructose, less than 5% minerals, and less than 3% moisture.

In India, it is mainly used as a component in sweet and savory dishes. Further, its use in several herbal and traditional medicines In Ayurvedic way of medicine, it is used as a medicine, blood purifier, and base material for syrups. Jaggery is among the major agro-processing industries in India. Nearly 20-30% of total sugarcane generated in the country is adopted for the manufacture of about 7 million tones jaggery, this is recognized as the most nutritious agent amidst all sweeteners. (baboo, 1995)

1.3 Jaggery cottage industry

The jaggery industry has been considered as one of the small scale and cottage industries in India. From time immemorial sugarcane harvest is known as a cash crop by Indian cultivators and also the preparation of jaggery. As much as 40-45 percent of sugarcane crop has been concocted seasonally into jaggery or khandasari (kachru, 2013). The production of jaggery ranges between five million tones and seven million tones. It is estimated that two-thirds of the sweetening requirement in rural areas is met by jaggery. The jaggery industry in the country has thus, been continued to be an industry of great importance and relevance. (babur, 2004).

Jaggery industry has encountered several changes over the years. Kolhus uses for crushing sugarcane have been replaced by power crushers in many parts of the country. This has helped to advance the efficiency of the industry by the way of an enhanced wrenching percentage of juice from the cane. The means of preparation of jaggery has also undergone substantial modifications. As a result of these changes the jaggery industry offering arduous competition to the sugar industry for sugarcane. The sugar industry

insists that the prejudicial policies of the government have helped to divert a large portion of sugarcane towards the jaggery industry especially at a time of sugar curtailment. (Sandage *et al.*, 2015).

In recent years the Indian sugar industry has found itself entangled in a complex web of problems of high stocks, low price, poor profitability, high raw material cost, financial crunch, and weak international competitive edge. In the 2013-2014 sugar seasons, the Indian sugar industry started sugar production even though it has a stock of over 112 lakh tones (Dwivedi, 2010). The sugar mills are expected to produce another 300 lakh tones of sugar during the season against an annual consumption of about 200 lakh tonnes. As result sugar prices have hit a low Rs 1,220 per quintal and sugar prices do not consolidate the raw material and cost production of sugar. This has resulted in delayed and low payments to the farmers for their sugarcane (BALAJI, 2007).

1.4 Specific objective of the study

1. To study the disposal pattern, marketing cost, margin, and price spread in the different marketing channels of jaggery.
2. To find out the constraint in the production and marketing of jaggery and suggest suitable measures for policy implication.

2. STATISTICAL ANALYSIS OF DATA

The calculation and statistical analysis in order to achieve the objectives were worked out using the statistical analysis. The data collected were subjected to the statistical analysis using the formula mentioned below.

- **Marketable surplus** : The marketable surplus of jaggery was worked out using the formula

$$MS = P - C$$

Where, MS – Marketable surplus

P – Total production

C – Total requirements (family and farm)

- **Price spread** : To study the price spread in marketing of jaggery data pertaining to cost and margins was analyzed as under:

Marketing cost:

$$C = CF + Cm_1 + Cm_2 + Cm_3 + \dots \dots \dots Cm_i$$

Where,

C – Total cost of marketing

CF – Cost borne by the produce respondent from the time at which the produce leaves the farm till the scale of the produce, and

Cm_i – Cost incurred by the Ith middlemen in the process of buying and selling.

- **Producers' share in consumer's rupee:** The producer's share in consumer's rupee was worked out as under :

$$PS = \frac{PF}{PC} \times 100$$

Where,

PS = Producer's share in rupee

PF = Price of the produce received by the respondent

PC = Price of the produce paid by the consumer

- **Marketing Efficiency:** The Marketing Efficiency was worked out by using the following formula:

$$\text{Marketing Efficiency (ME)} = \frac{\text{Consumers' price}}{\text{Marketing cost} + \text{marketing margin of middlemen}}$$

2.1 Data collection and study area

In this research paper, the data was composed from Sitapur district purposively as it has highest region under sugarcane production in state of Uttar Pradesh. This district contributes an area of 1187 ha with the production of 67085 tons (2016-17). among the 19 blocks in sitapur district, Mahmudabad block was selected purposively based on the highest area under Sugarcane cultivation. From the Mahmudabad block in which five villages were selected randomly for the study of marketing of jaggery which are Hajipur, Pukharakalan, Kothila, Purania and Sadarpur. About 10 percent of the sugarcane farmers from these villages are selected from Gram Pradhan of each selected village and the study is confined from year 2016-17. , the respondents were arranged in ascending order of area under cultivation and then respondents were classified in to three size farm groups on the basis of area under cultivation. In all the 3 size of jaggery producer 10 per cent respondent were selected randomly. Altogether total 60 respondents were collected viz., 17 small respondents, 19 medium respondents and 24 large respondents respectively.

Biswa market was selected for the present study since all the jaggery producers sell their jaggery in this market as it is the nearest main market

available for the selected villages. Maximum produce are sold in this market. This market was selected on purpose to evaluate the marketing surplus, price spread and total marketing cost as declared in the objectives. To acquire the information regarding the marketing channels involved in the marketing of Jaggery, different intermediaries were selected as per their purchasing and selling Jaggery from the farmers to the consumers. Commission agents/wholesalers and retailers were preferred randomly for studying marketing cost and price spread in various marketing channels.

3. DISPOSAL PATTERN OF JAGGERY IN DIFFERENT MARKETING CHANNELS

To analyze the marketable surplus of jaggery (Table 4.7) indicates the disposal pattern of small, medium and large sized farm groups:

Table 3.1
Disposal pattern of jaggery per farmer in different size of farms group in quintal
 Number of Respondents=60
 S M L= 17+19+24=60
 (Value in Rupees/ qtls.)

Sl. No	Particulars	Size of Farms Groups			Average sample
		Small	Medium	Large	
1	Area under sugarcane cultivation per hectare	0.35	0.60	1.30	0.80
2	Total production of sugarcane in quintals Per Farms level	259.35	444.6	963.3	599.59
3	Total production of jaggery in quintals Per Farms level	37.05	63.51	137.57	85.63
4	Retained for jaggery(in quintals)				
I	Home Consumption	0.20 (0.53)	0.75 (1.18)	1.00 (0.72)	0.69 (0.81)
II	Kind Payment as wages	0.50 (1.34)	1.00 (1.57)	1.25 (0.90)	0.95 (1.12)
III	Relatives and Religious person	0.45 (1.21)	0.55 (0.86)	0.65 (0.47)	0.56 (0.65)
5	Total retention for jaggery	1.15 (3.10)	2.30 (3.62)	2.90 (2.10)	2.21 (2.58)
5	Marketable surplus	35.9 (96.89)	61.21 (96.37)	134.67 (97.89)	83.42 (97.42)

Note: Figures in the parenthesis indicate percentage to the total

Disposal pattern of jaggery is shown in Table 3.1, it's revealed that the area under jaggery cultivation per hectare for small size farms was 0.35 ha,

0.60 ha for medium size farms and 1.30 ha large size of farms group, which constituted on Average sample of 0.80 ha respectively. Total production of jaggery in quintals was highest in large size farms 137.57 qtls as followed by medium 63.51 qtls and small size farms 37.05 qtls.

The quantity retained for jaggery growers was mostly for kind payment to labors as wages, some of the quantity was used for home consumption and some of the quantity used as gift for religious purpose. The highest percent of the produce was retained by medium size farms 3.62 percent as followed by small size farms 3.10 percent and large size farms 2.10 percent respectively. And the Average sample of total retention was 2.58 per cent. This also indicated that highest percentage marketable surplus was found by large size farms 97.89 percent as followed by small size farms 96.89 percent and medium size of farms 96.37 per cent. This makes the Average sample for marketable surplus of 97.42 percent of the total production.

Table 3.2
Marketable surplus of jaggery in different Size of Farms Group

Sr. No.	Particulars	Size of farms groups			Sample Average
		Small	Medium	Large	
		Number of Respondents=60 S M L= 17+19+24=60 (Value in Rupees/ qtls.)			
1.	Marketable surplus from own Farm	35.9	61.21	134.67	83.42
2.	Quantity purchased from other Farms	-	-	-	-
3.	Actual Marketable Surplus (in quintals)	35.9	61.21	134.67	83.42
4.	Disposal of actual Marketed Surplus of Jaggery in Different Marketing Channels				
I.	Producer –Consumer	2.50 (6.96)	3.75 (6.12)	6.25 (4.64)	4.39 (5.26)
II	Producer – Retailer-Consumer	3.5 (9.74)	5.25 (8.57)	10.25 (7.61)	6.54 (8.09)
III	Producer–Commission agent/ Wholesaler – Retailer –consumer	29.90 (83.28)	52.21 (85.29)	118.17 (87.74)	72.27 (86.63)

Disposal pattern of marketable of surplus Jaggery was shown in the table 3.2. It could be seen from the table that actual marketed surplus was highest in large size farms (134.67 quintals) followed by medium and small size of farms group (61.21 quintals & 35.9 quintals) respectively. The table reveals that disposal pattern of actual Marketable surplus of Jaggery in three different channels i.e. Channel I, Channel II and channels III. The highest percentage of the produce was transacted through channel III

i.e.86.63 percent followed by 8.09 percent through channel II and 5.26 present through channel I.

Table 3.3
Marketing cost of Jaggery in Channel I (Producer'! Consumer)

Number of Respondents=60
S M L= 17+19+24=60
(Value in Rupees/ton)

<i>Sr. No.</i>	<i>Particulars</i>	<i>Rs/Qtls</i>
1.	Producer's sale price	3000.00 (100)
2.	Expenses borne by the producer	
i.	Transportation cost	50.00 (1.66)
ii.	Cost of gunny bags	30.00 (1.00)
iii.	Labour cost	30.00 (1.00)
iv.	Weighing charges	20.00 (0.66)
v.	Miscellaneous charges	30.00 (1.00)
vi.	Loading and unloading	40.00 (1.33)
vii.	Packing Cost (Carry Bags)	30.00 (1.00)
3.	Total marketing cost	230.00 (7.66)
4.	Net Price Received By The Producer	2770.00 (92.33)
5.	Consumer's Purchase Price	3000.00 (100.00)
6.	Price spread	230.00 (7.66)
7.	Producer's Share In Consumer Rupee	92.33%
8.	Marketing efficiency	13.04

Note: Figures in the parenthesis indicates percentage

The price spread of jaggery in Biswan and Ramgarh market Mahmudabad block has been worked out in Table 4.8. It is important to mention here that there is no middleman involved in the sale of farm produce in Biswan and Ramgarh market. There is direct sale of the produce by the producer to consumer.

A perusal of Table 3.3 reveals that the producer's sale price/ consumer's purchase price was Rs 3000.00 per qtls. The expenses borne by the producer were about Rs 230.00 per qtls. Which were about 7.66 percent of the consumer's price. The net price received by the producer, i.e., Rs 2770.00

Table 3.4
Marketing Cost, Margin and Price Spread in different channels of Marketing

Number of Respondents=60
S M L= 17+19+24=60
(Value in Rupees/ton)

Channel-II = Producer –Retailer - Consumer

<i>Sr. No. Particulars</i>	<i>Rs/Qtls</i>
1. Producer's sale price	3000.00
	(100)
2. Expenses borne by the producer	
i. Transportation cost	50.00
	(1.32)
ii. Cost of gunny bags	30.00
	(0.79)
iv. Weighing charges	20.00
	(2.62)
vi. Loading and unloading	40.00
	(1.06)
vii. Packing cost	10.00
	(0.26)
3. Total marketing cost	150.00
	(3.98)
4. Net Price Received By The Producer	2850.00
	(75.75)
5. Cost incurred by the Retailer	
i. Weighing charges	40.00
	(1.06)
ii. Loading and unloading charges	10.00
	(0.26)
iii. Transportation charges	50.00
	(1.32)
iv. Miscellaneous charges	50.00
	(1.32)
10. Total marketing cost	162.00
	(4.30)
11. Retailers Margin	600.00
	(15.94)
12. Sale price of Retailers to consumers	3762.0
	(100.00)
13. Price spread	762
14. Producer's Share In Consumer Rupee	79.74
16. Marketing Efficiency (in %)	12.06

per qtls. was about 92.33 percent of the consumer's purchase price. As compared to channels II, the producer's share in channel I was more on account of direct sale by the producer to the consumer. The total price spread accounted for channel I was 7.66 percent and the marketing efficiency was 13.04.

Table 3.4 reveals that average marketing cost when producers sold their product to village Retailers in the market was Rs.3000.00/ qtl. . Among these Grading, Filling, Stitching, etc was Rs.10.00/ qtl, transportation cost Rs.50.00/ qtl, loading and unloading charges Rs.40/ qtl . The average marketing cost sold to their produce through village retailers to the consumers, was observed 3.98 per cent, among these costs transportation was the most important 1.32 per cent, followed by Weighing charges was 1.06, miscellaneous cost 1.32 per cent respectively. The total Price spread was Rs.762.00/ qt, producer share in consumer rupee 79.74 and market efficiency was 12.06 per cent respectively.

Table 3.5
Marketing Cost, Margin and Price Spread in different channels of Marketing

Number of Respondents=60
S M L= 17+19+24=60
(Value in Rupees/ qtls)

Channel III Producer → Commission Agents/ Wholesaler → Retailer → Consumer

S. No.	Particulars	Rs/Qtls
1.	Producer's sale price	3000.00 (78.04)
2.	Cost incurred by the producer	
I	Cost of gunny bags	30.00 (0.78)
II	Transportation.	50.00 (1.30)
III	Labour cost	30.00 (0.78)
IV	Weighing charges	20.00 (0.52)
V.	Loading and unloading	40.00 (1.04)
VI.	Miscellaneous charges	30.00 (0.78)
3.	Total marketing cost	200.00 (5.20)
4.	Net Price Received By The Producer	2800.00 (72.83)

Contd. table 3.5

S. No.	Particulars	Rs/Qtls
5.	Sale price of producer/wholesalers purchase price	3000.00 (78.04)
6.	Cost incurred by wholesaler/commission agents	
I	Loading and unloading charges	40.00 (1.04)
II	Transportation cost	50.00 (1.30)
II	Packing cost	40.00 (1.04)
III	Market fee @ 2.47%	74.10 (1.92)
IV	Miscellaneous charges	30.00 (0.78)
6.	Total marketing cost	234.10 (6.08)
7.	Commission agent/ Wholesaler Margin	150.00 (3.90)
8.	Sale price of Commission agent/ wholesalers to Retailers	3384.10 (88.03)
9.	Cost incurred by the Retailers	
I	Weighing charges	40.00 (1.04)
II	Packing cost (carry bags)	30.00 (0.78)
III	Loading and unloading charges	40.00 (1.04)
IV	Transportation charges	50.00 (1.30)
V	Miscellaneous charges	50.00 (1.30)
10.	Total marketing cost	210.00 (5.46)
11.	Retailers Margin	250.00 (6.50)
12.	Sale price of Retailers to consumers	3844.10 (100.00)
13.	Price spread	1044.10 (27.16)
14.	Producer's Share In Consumer Rupee	78.04
15.	Consumers paid price	3844.10 (100.00)
16.	Marketing Efficiency (in %)	2.87

Note: Figure in the parenthesis indicates percentage to the total consumer price.

Table 3.5 reveals that marketing cost and marketing margin for channel-II. The producer sells his produce to the wholesalers/commission agents, who in turn sell it to the Retailer in the market. Finally the produce reaches to consumers after collecting margin. Average marketing cost when producers sold their produce to wholesalers/commission agents in the market was Rs.3000/qtls. The cost incurred during this process by the producer, wholesalers/commission agents and the Retailer was Rs. 200, Rs.234.10 and Rs.210 respectively. The net price received by the producer was Rs.2800. In these channel marketing cost of the producer and wholesalers/commission agents and Retailer was 5.20 per cent, 6.08 per cent and 6.50 per cent of consumers paid price respectively. Wholesaler's/commission agent's margin was 3.90 percent and Retailer margin was 6.50 per cent of the consumer paid price. The total price spread accounted for channel II was 27.16 percent and the marketing efficiency was 2.87. similar study were located down the lane about price spread in khandsari marketing (Lal, 2010).

Table 3.6
Detailed descriptions of total marketing cost, price spread and producers' share in consumer's rupee and marketing efficiency in different channels

<i>Sr. no.</i>	<i>Particulars</i>	<i>Channel I</i>	<i>Channel II</i>	<i>Channel III</i>
1.	Total marketing cost	230.00	320.00	644.20
2.	Total margin received	-	600.00	400.00
3.	Total price spread	230.00	762.00	1044.10
4.	Producers' share in consumer's rupee	92.33	79.74	78.04
5.	Marketing efficiency	13.04	12.06	2.87

Table 3.6 reveals that total marketing cost, marketing margin, price spread, Producers share in consumer rupee and marketing efficiency in the marketing channels. The total market cost was higher in channel III (Rs 644.00) compared to channel II (Rs.320.00) and channel I (Rs.230.00). And the total marketing margin and price spread was also seen higher in channel III (Rs.400.00 and Rs.1044.10) because in the channel III there are two intermediates where as in the channel II there is only one intermediate. The producer share in consumer rupee was higher in channel I, 92.33 percent. The marketing efficiency was higher in channel I, 13.04 per cent respectively.

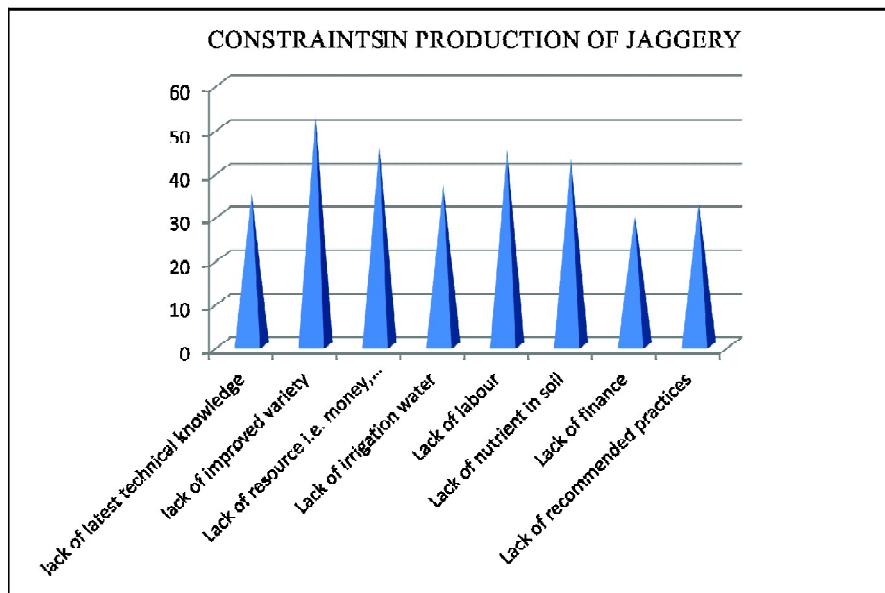
The table 3.7 revealed that there were eight major problems in jaggery production confronted by the sample jaggery producer. Among several problem lack of improved variety was observed most several problem with

Table 3.7
Constraints in production of Jaggery in different Size of Farms Group

Number of Respondents=60
 S M L= 17+19+24=60

Sr.no	Particular	size of farm			total in percentage	Rank
		Small	Medium	large		
1.	lack of latest technical knowledge	10	15	20	35 (58.33)	VI
2.	lack of improved variety	15	18	20	53 (88.33)	I
3.	Lack of resource i.e. money, equipment	11	16	19	46 (76.66)	II
4.	Lack of irrigation water	6	12	19	37 (61.66)	V
5.	Lack of labor	9	14	22	45 (75.00)	III
6.	Lack of nutrient in soil	9	13	21	43 (71.66)	IV
7.	Lack of finance	5	9	16	30 (50.00)	VIII
8.	Lack of recommended practices	7	11	15	33 (55.00)	VII

Figure 3.1: Constraints in production of jaggery in different Size of Farms Group



88.33 average score in garret ranking followed by lack of resource i.e. money, equipment and lack of labor with average of 76.66 and 75.00 respectively. Less severe problem observed among the jaggery producer were Lack of nutrient in soil, Lack of irrigation water, lack of latest technical knowledge, Lack of recommended practices, Lack of finance with the average percent of 71.66, 61.66, 58.33, 55.00 and 50.00 respectively.

Table 3.8
Constraints in marketing of jaggery different Size of Farms Group

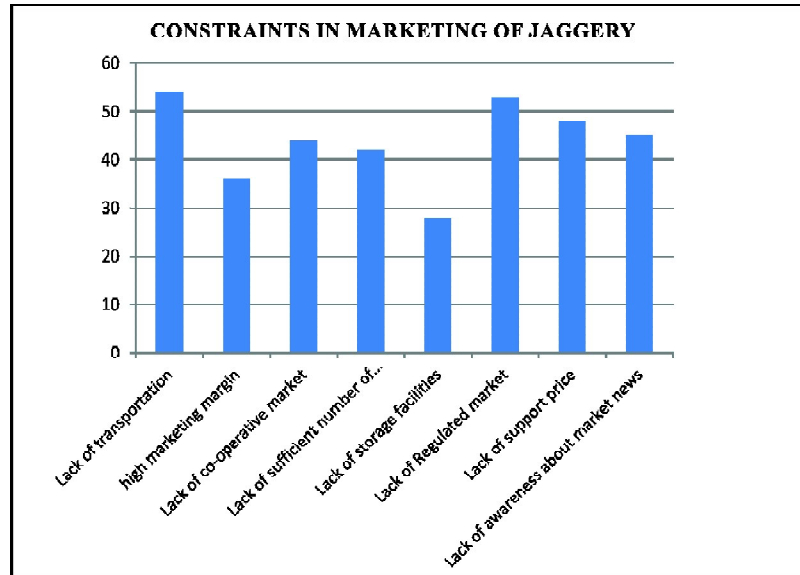
Number of Respondents=60

S M L= 17+19+24=60

Sr.no	Particular	size of farm			total in percent	Rank
		small	medium	large		
1.	Lack of transportation	15	17	22	54 (90.00)	I
2.	High marketing margin	8	11	17	36 (60.00)	VII
3.	Lack of co-operative market	10	15	19	44 (73.33)	V
4.	Lack of sufficient number of processing unit	9	13	20	42 (70.00)	VI
5.	Lack of storage facilities	3	9	16	28 (46.66)	VIII
6.	Lack of Regulated market	14	18	21	53 (88.33)	II
7.	Lack of support price	15	16	17	48 (80.00)	III
8.	Lack of awareness about market news	11	15	19	45 (75.00)	IV

Marketing constraints confronted by producer in study areas was enlisted in table 3.8 Lack of transportation was observed most severe problem in marketing of jaggery with average 90.90 percent followed by Lack of Regulated market and lack of support price with the average 88.33 and 80.00 percent respectively. Problem of storage facility was observed least severe among producer with the 46.66 percent respectively. (ramarao, 2011).

Figure 3.2: Constraints in marketing of jaggery different Size of Farms Group



4. CONCLUSIONS

The study concerns the marketing of jaggery in Sitapur district. The main purpose of the study is to analyze, socio-economic attributes of sample respondents to study the disposal pattern, marketing cost, margin, and price spread of jaggery per quintal in distinct channels of marketing and constraints in production and marketing of jaggery. The results reveal that the socio-economic status of the respondents found to be moderate with primary education, a sound economic background, and greater admittance to all the assets. Economics of jaggery marketing is more profitable in large farms as compared to medium-size farms and small size farms.

The study designated that there is scope to increase the producer's share in consumer's rupee by delivering the market more efficiently so that the number of intermediaries is to be restricted and marketing costs and marketing margins to be reduced. Major detentions in production were found that high cost of labour and less consciousness about modish technologies among different farms size group attended by a huge price fluctuation was the major marketing constraint in jaggery.

REFERENCES

Adya Prasad Pandey (2007). Indian sugar industry - a strong industrial base for rural India, MPRA, Banaras Hindu University.

- Akshay Kavatkar, Akshay Rajmane, Prof. Rahul Dandage (2015). Developing A Sugarcane Feeding System for Jaggery Making Plants For Rural India *International Journal of Science Technology & Management*. 4(1): 225-228.
- Babar V S and Lohar N S, (2004). Trends in arrivals and prices of jaggery in Sangli regulated market. *Indian Journal of Agricultural Marketing* 8(1) 123-125.
- Baboo& Solomon (1995). Nutritive Sweeteners from Sugar Crops: Development of Jaggery, Khandsari and Syrup Industry in India, Sugarcane-Agro Industrial Alternatives. *Oxford & Ibh, New Delhi* 124-126.
- Dwivedi A K (2010). An Empirical Study of Gur (Jaggery) Industry (With Special Reference to Operational Efficiency And Profitability Measurement)", Indian Institute of Management, Ahmedabad pp 123-126.
- Lal J, (2010). Costs, margins and price spread of Gur and Khandsari. *Agricultural Marketing* 22(4) pp 1-3.
- Imandi Venkata Yoga Ramarao, (2011). An Economic Appraisal of Manufacturing and Marketing of Jaggery in Andhra Pradesh state. *India Sugar Tech September, Volume 13, Issue 3, pp 236-244*
- Singh K., Solomon S. and Kumar D. (2013). Manufacturing Jaggery, A Product of Sugarcane, As Health Food Special, *Agrotechnol S11 pp: 007*.