



ISSN (E): 2277-7695  
ISSN (P): 2349-8242  
NAAS Rating: 5.23  
TPI 2022; 11(12): 4246-4252  
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[www.thepharmajournal.com](http://www.thepharmajournal.com)  
Received: 27-10-2022  
Accepted: 04-11-2022

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## Socio-economic and communicational attributes of sugarcane growers involved in jaggery production

**MN Ansari, AN Hosmani and AK Paswan**

### Abstract

The study was conducted in the two blocks of Belagavi district of Karnataka state during the year 2020-2021. A total of 90 respondents were randomly selected for the present study. The data were collected by personal interview method and with the help of a structured interview schedule. The study found that majority of the respondents was male category, possess nuclear family and were completed up to secondary school education. The study also revealed that majority of respondents with socio-economic, personal and communication attributes like age group, family size, farming experience, live-stock holding, annual family income, extension contact, mass media exposure, Cosmo politeness were falling under medium level in study locale. Greater significance of respondents was participated in more than one organization and was having medium land holding up to 4-10 ha.

**Keywords:** Socio-economic, communication, farmers, jaggery production

### Introduction

Sugarcane (*Saccharum officinarum* L.) is India's most important commercial crop and it is grown in tropical and sub – tropical region across the world. In the 2019-2020 period, global sugar production were 166.18 million metric tonnes. A total of over 120 countries produce sugar. Brazil rank first in production of sugar cane and its produces 29.33 metric million tonnes followed by India 28.9 metric million tones and EU 17.25 metric million tonnes. In India, Uttar Pradesh is the largest sugar cane producing state with production accompanied by Maharashtra and Karnataka. In Karnataka state sugarcane is the grown in 16 districts of the state among which Belagavi districts is the highest in sugarcane production i.e., 19.06 million tones and area is 2.06 lakh hectares and productivity is 92.15 tonnes per hectares.

Sugarcane is providing raw material for several agro based industries for the development of the country after textiles. It commands greater significance due to their remarkable contribution to our nation economy through foreign exchange earnings. Entrepreneurship is necessary for sugarcane industry for socio economic development of rural areas by mobilizing rural resources, generating employment and enhancing income of the farmers. In the rapid growing world, every country tries to achieve high socio economic development for the prosperity of the society and betterment of its people. Rural society is made up of farming people. So, the contribution of farmers in economic activities is very much important for a healthy nation building

Sugarcane is primarily cultivated for juice from which sugar is processed. Fifty % of sugar can be utilized for the production of white sugar, 30.00% for low purity sugar (Jaggery) and 20.00% for alcohol directly from sugarcane juice along with molasses. Gur (Jaggery) is a natural and traditional sweetener made up of concentration of sugarcane juice. It's also called healthiest sugar in the world. India is the highest producer and consumer of jaggery. Jaggery preparation is simple process to crush sugarcane for juice extraction, filter and boil the juice for concentration, then cool and solidify the juice to form jaggery blocks.

The Indian jaggery industry is the country's largest unorganized market, and it is one of the oldest and most prominent rural cottage industries. The majority of sugarcane growers are manufactures the jaggery with minimal capital expenditure, generating jobs for unemployed rural residents. The majority of jaggery producers are small and marginal farmers who depend on fast returns from their crops. It is therefore important to protect sugarcane growers' income from their jaggery manufacturing units by improving their output through value addition and modern technology packaging of jaggery-based goods. Individuals, families, and communities can all benefit from entrepreneurship, which helps to maintain a healthy economy and environment.

Keeping these considerations in mind, the present investigation was undertaken to assess the socio-economic and communicational attributes of sugarcane growers involved in jaggery production.

### Materials and Methods

The research was carried out in Belagavi district of Karnataka during the year 2020-2021. The Belagavi district has been purposely selected in view of its highest area and production of sugarcane in the state. The district contains 14 blocks. Out of these 14 blocks, two blocks viz., Raybag and Gokak was selected on the basis of maximum number of Jaggery producers. Three villages from each block were randomly selected for the purpose of study. A list of jaggery producers had prepared after the survey of sugarcane farmers. Further 15 jaggery producers were selected randomly from the each selected village. Those total numbers of 90 jaggery producers were constituted as the sample respondents for the present study. The data was collected with the help of structured interview schedule and statistical methods and tools viz., mean, frequency, percentage, standard deviation were used to analyze the data.

### Results and Discussion

#### Socio-Economic and Communicational attributes of Sugarcane Growers involved in Jaggery Production

##### Age

Table 1 showed that more than half of the (54.44%) selected respondents belonged to the middle aged group thereafter 25.55% and 20.00% respondents came under high and young age group respectively. The obtained results were in accordance with Gaikwad (2018) [2] who described that

majority of farmers (56.70%) were middle aged category. The mean age of the sugarcane growers were found to 44.74 years.

**Table 1:** Distribution of the respondents based on age (N = 90).

Age	F	%	Mean
Young (up to 35 yrs.)	18	20.00	44.74 yrs.
Middle (36 to 50 yrs.)	49	54.40	
Old (>50 yrs.)	23	25.55	

##### Gender

It is clearly from the table 2 that 100 % of jaggery producers were male. These results were consistent with the study of Sunil (2020) [7] and he revealed that cent percent of farmers were male and they were family head and key person of the decision making process.

**Table 2:** Distribution of the respondents based on gender (N = 90).

Gender	f	%
Male	90	100
Female	0	0

##### Family size

The results depicted in table 3 viewed that majority of families were medium size ie.43.33 % preceded by 31.11 % and 25.55 % of families who were belong to small and large size in the study area. The results were similar to Shukla (2020) [8] who observed that nearly half of families (46.67%) were having medium size of family and concluded that majority of house-holds had more than 5 members in their family.

**Table 3:** Distribution of the respondents based on the size of the family (N= 90).

Family size	F	%	Mean	S.D
Small ( $\leq$ 4 members)	28	31.11	6.14	2.13
Medium (5-7 members)	39	43.33		
Large ( $\geq$ 8 members)	23	25.55		

##### Family type

This findings of table is 4 indicated that more than fifty percentage (63.33%) of the farmers had belonged to nuclear family followed by 36.66 % belong to joint type of families. This result described that more than five eighth families interested in nuclear family and more than one third of families interested in joint family among jaggery producers. This finding is in lines with the findings of Parida (2010) [4] who revealed that most of the house-holds were residing in the nuclear family with tune of 63.05 %.

**Table 4:** Distribution of the respondents based on the type of family (N = 90).

Family type	F	%
Nuclear	57	63.33
Joint	33	36.66

##### Category

**Table 5:** Distribution of the respondents based on category (N = 90).

Category (caste)	F	%
SC/ST	25	27.17
OBC	39	43.33
General	26	28.88

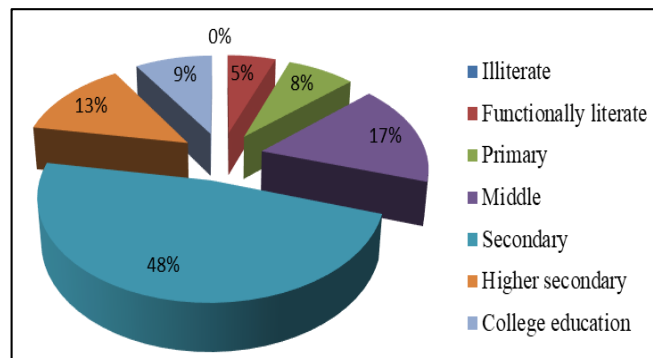
The findings displayed in table 5 viewed that most of the jaggery producers (43.33%) had belonged to other backward category (OBC) accompanied by 28.88 and 27.17% of respondents who were found either in general category or in schedule caste/ schedule tribes groups. This finding could be supported with the observation made by Lal (2014) [3] who described that higher significant of farmers comes to OBC category.

##### Education

Table 6 elucidated that educational status of the jaggery producers and it is evident that 47.77% of selected respondents had completed secondary school level of education, 16.66% of respondents completed their middle school education, 13.33% were found to complete higher secondary education, 8.88% of passed out college education only 7.77% of respondents completed primary education, 5.55% were functionally illiterate and none of farmers were belongs to illiterate group respectively. This findings confirms the results of Sunil (2020) [7] and observed that majority of respondents had completed their secondary school education.

**Table 6:** Distribution of the respondents based on education (N = 90).

Education	f	%
Illiterate	0	0
Functionally illiterate	5	5.55
Primary	7	7.77
Middle	15	16.66
Secondary	43	47.77
Higher secondary	12	13.33
College education	8	8.88



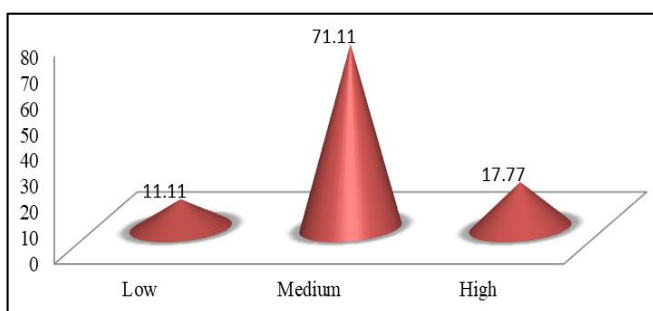
**Fig 1:** Distribution of the respondents based on Education (%)

**Farming Experience**

It is evident from table that higher significant percentage (71.11%) of the jaggery producers had medium level of farming experience, 17.77% of producers were high level of experience and 11.11% of jaggery producers fell in low level of experience respectively. The average experience of the selected producers was found 15.7 years. Most of the farmers decided the agriculture from their young age and they choose farming to become self-employer. This finding is in tune of results of Jamir *et al.* (2020) [9].

**Table 7:** Distribution of the respondents based on experience in farming (N=90).

Experience in farming	F	%	Mean	S.D
Low (< 8.32)	10	11.11	15.7	7.37
Medium( 8.32 – 23.07)	64	71.11		
High (> 23.07)	16	17.77		



**Fig 2:** Distribution of the respondents based on experience in farming (%)

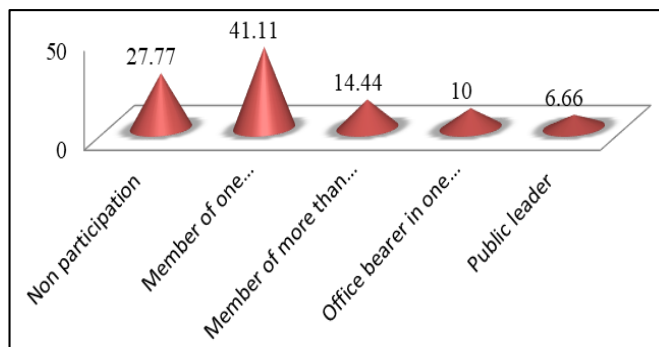
**Social participation**

The persuade of table 4.1.7 reveals that majority (41.11%) of the respondents had member of one organization, 27.77% of respondents were belongs to non- participation group. 14.44% of jaggery producers actively found to participate as member in more than one organization, while 10.00% of respondents known as office bearer in one organization and only 6.66% of

respondents were found as public leaders in study area respectively. The findings are also similar with the work of Shukla (2020) [8] who observed that farmers were participating with their necessity and availability of the time in their locality of habitation.

**Table 8:** Distribution of farmers based on their social participation (N = 90).

Social participation	F	%
Non participation	25	27.77
Member of one organization	37	41.11
Member of more than one organization	13	14.44
Office bearer in one organization	9	10.00
Public leader	6	6.66



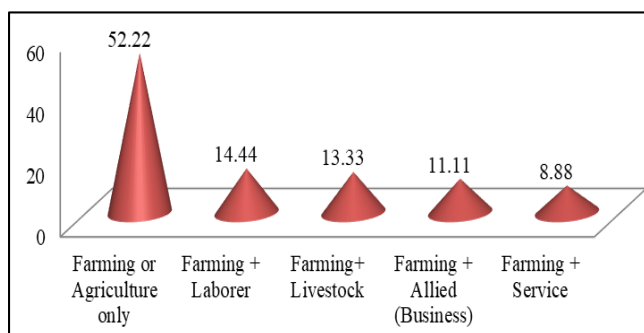
**Fig 3:** Distribution of farmers based on their social participation (%)

**Occupation**

The table 9 revealed that more than half (52.22%) of the respondents were found to had agriculture as their main occupation. Whenever 14.44 % of farmers have been doing Farming + Labourer accompanied by Farming + Livestock, Farming + Allied (Business), and Farming + Services accounted for 13.33 %, 11.11 % and 8.88 % respectively. In locality of research area crop farming was considered as primary occupation. These findings were also borne out from the study Lal (2014) [3] who reported that in his study 63.75 % of rural households depend on crop farming only. Shukla (2020) [8] in his research observed that nearly half of (47.78 %) respondent’s major occupation was farming.

**Table 9:** Distribution of the respondents based on occupation (N = 90).

Occupation	F	%
Farming or Agriculture only	47	52.22
Farming + Labour	13	14.44
Farming + Livestock	12	13.33
Farming + Allied (Business)	10	11.11
Farming + Services	08	8.88



**Fig 4:** Distribution of the respondents based on occupation (%)

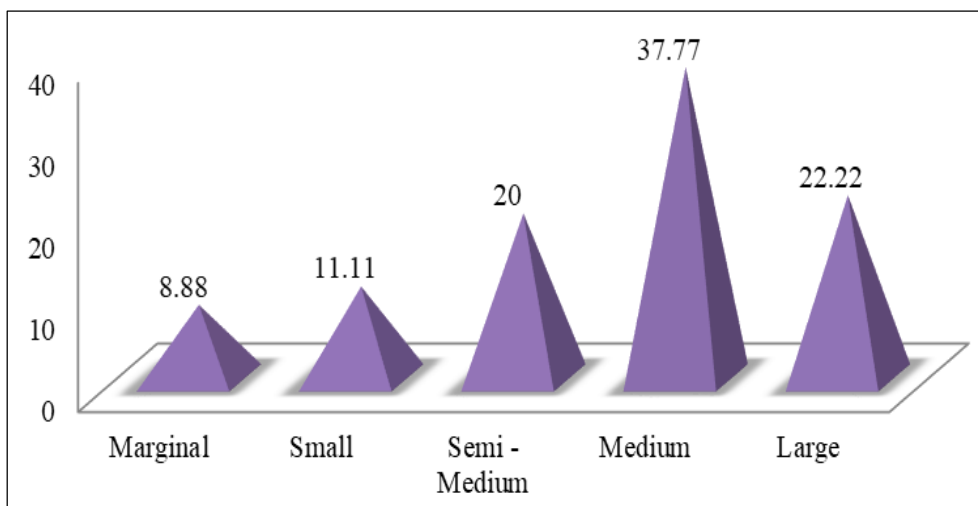
**Land holding**

It is revealed from the results of table 10 that more than one third (37.77%) of the respondents had medium land holdings, followed by 22.22%, 20.00%, 11.11% and 8.88% of farmers who were found in large, semi- medium, small and marginal farming group respectively. The findings concluded that most of jaggery producers were medium land holdings in study area because more number of families was nuclear. The results were similar to Chithra *et al.* (2018) [1] who were reported that 42.50% farmers were having medium land

holdings.

**Table 10:** Distribution of the respondents based on landholding (N = 90).

Land holding (ha)	F	%	Mean
Marginal (<1 ha)	8	08.88	6.57
Small (1-2 ha)	10	11.11	
Semi – medium (2-4 ha)	18	20.00	
Medium (4-10 ha)	34	37.77	
Large (10 ha or above)	20	22.22	



**Fig 5:** Distribution of the respondents based on landholding (%)

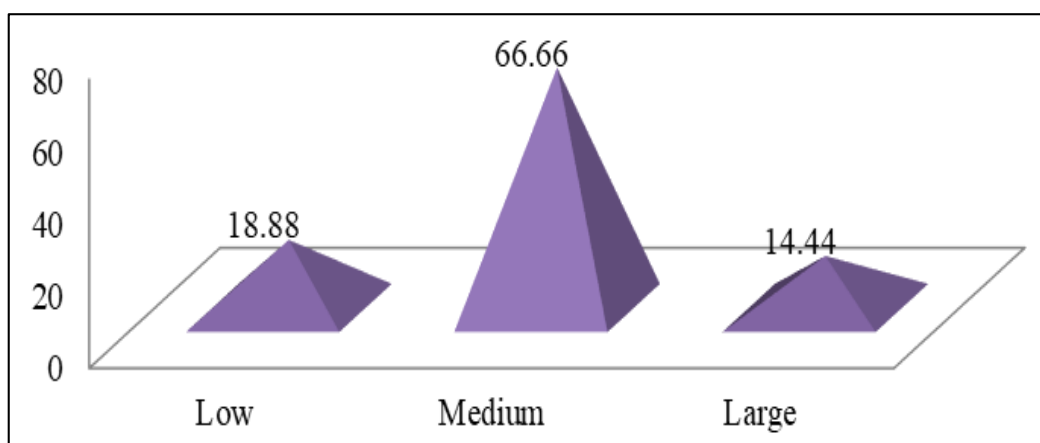
**Livestock-holding**

Table 11 depicts that about two third (66.66%) of sample respondents having moderate level of livestock holding followed by 18.88% and 14.44% of key respondents who were having lower and higher level of livestock holding respectively. The average number of livestock holding was found 4.24 and standard deviation value is shown 2.18. The findings were accordance with the lines of Raina *et al.* (2016) who reported that significant of key respondents were having

medium level of livestock holding.

**Table 11:** Distribution of the respondents based on livestock-holding (N = 90).

Livestock holding	f	%	Mean	S.D
Low (< 2.06)	17	18.88	4.24	2.18
Medium( 2.06 – 6.43)	60	66.66		
High (> 6.43)	13	14.44		



**Fig 6:** Distribution of the respondents based on livestock-holding (%)

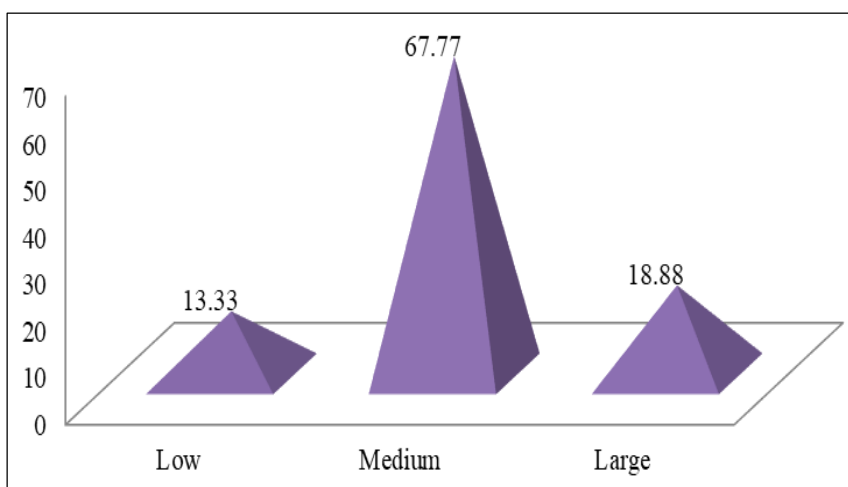
**Annual family income**

It is evident from the table that more than two third (67.77%) of jaggery producers had belonged to medium level of income group i.e., (Rs. 3,32,762.44 – 12,26,105.33) accompanied by 18.88 % and 13.33 % of producers were large (Rs. >12,26,105.33) and small (Rs. <3,32,762.44) income group

respectively. Average family income of the jaggery producers was found (Rs. 7, 79,388.88) per year. It was so due to most of the jaggery producers had medium to large size of land holdings. They were also engaged in allied activities like livestock rearing and business as their other source of livelihood. This finding was defended by Gaikwad (2018) [2].

**Table 12:** Distribution of the respondents based on annual family income (N = 90).

Annual family income	F	%	Mean	S.D
Low (< 332762.44)	12	13.33	779388.88	446626.44
Medium (332762.44 –1226105.33)	61	67.77		
High (> 1226105.33)	17	18.88		



**Fig 7:** Distribution of the respondents based on annual family income (%)

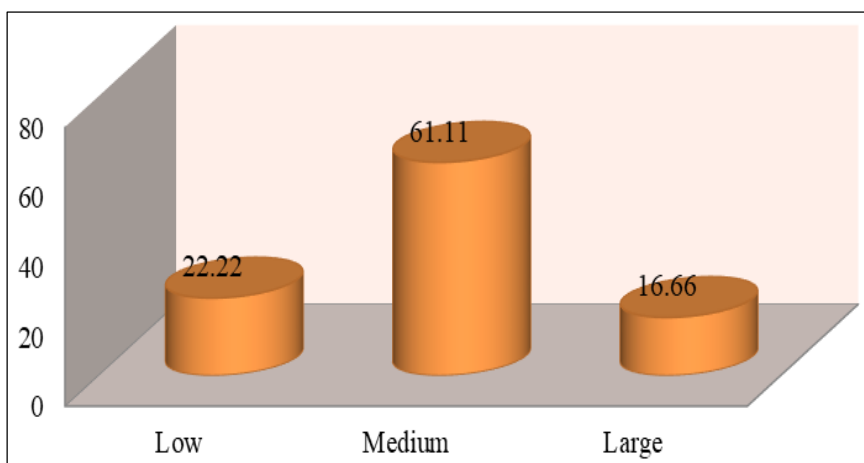
**Extension contact**

Table 13 illustrated that higher significant percentage (61.11 %) of the respondents had medium level of extension contact with score of (7.45-13.09) accompanied by 22.22 % (< 7.45) and 18.88 % (>13.09) of respondents were low and high level of extension contact respectively. The sample mean and standard deviation of extension contact were found 10.27 and 2.82 respectively. During the study it was found that majority of the jaggery producers were interested in extension events like Krishi-Mela, field day and training programme to take

recent information about farming and their marketing channels etc., The findings were accordance with the results of Shukla (2020) [8] and Sunil (2020) [7].

**Table 13:** Distribution of the respondents based on extension contact (N = 90).

Extension contact	F	%	Mean	S.D
Low (< 7.45)	20	22.22	10.27	2.82
Medium (7.45-13.09)	55	61.11		
High (> 13.09)	15	16.66		



**Fig 8:** Distribution of the respondents based on extension contact (%)

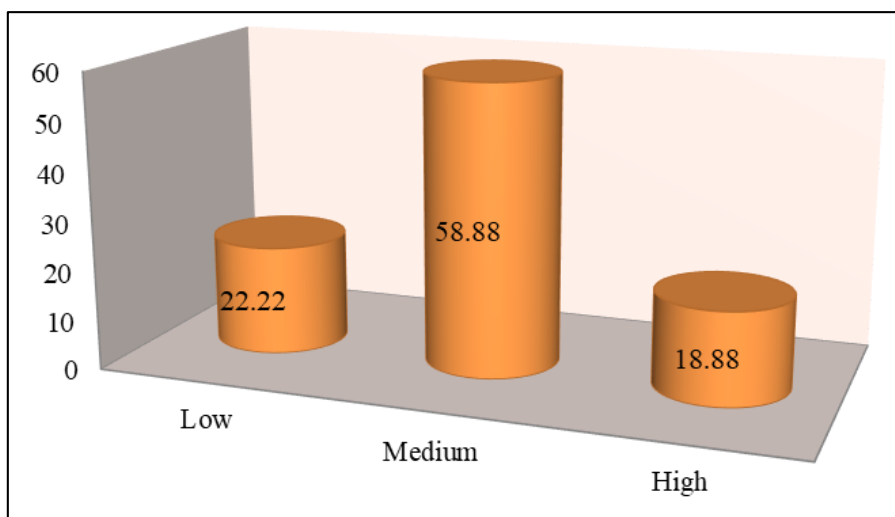
**Mass media exposure**

The table 14 indicated that the explrance of respondents with vivid mass media in locale of research area. More number of selected respondents i.e., 58.88 % were belongs to medium category of mass media exposure and it was preceded by 22.22 % and 18.88 % of respondents who were fell under low and high category of mass media exposure respectively. In the locale of study area farmers were exposed to mass media in order to get reliable information regarding new technology, new varieties, and new methods for sugarcane cultivation.

The results were similar with the findings of Chithra *et al.* (2018) [1].

**Table 14:** Distribution of the respondents based on mass media exposure (N=90).

Mass media exposure	f	%	Mean	S.D
Low (< 5.14)	20	22.22	7.01	1.86
Medium( 5.14 – 8.87)	53	58.88		
High (> 8.87)	17	18.88		



**Fig 9:** Distribution of the respondents based on mass media exposure (%)

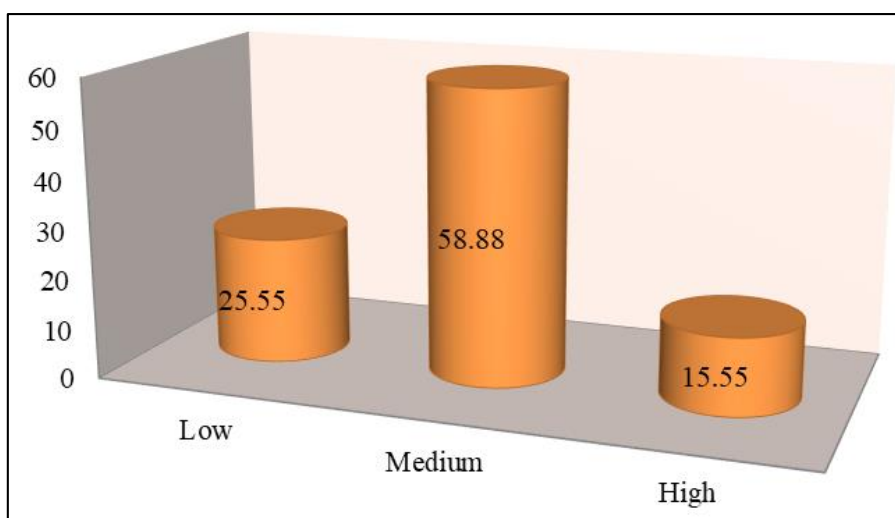
**Cosmopolitness**

It can be seen from the table 15 that majority (58.88%) of respondents were having medium category of cosmopolitness subsequently 25.55%, 15.55% of respondents were found under low and high category of cosmopolitness. The selected farmers were frequently visited the outside of his community to get credible information. The large and medium farmers were significant cosmopolitness due to their good economic condition and actively participated in extension activities like tours, exhibitions etc., as compared to small farmers. The

result was accordance with the work of Prasad (2016) [5] who reported that 60.83% of sugarcane growers were having medium cosmopolitness.

**Table 15:** Distribution of the respondents based on Cosmopolitness (N = 90).

Cosmopolitness	f	%	Mean	S.D
Low (< 4.15)	23	25.55	6.17	2.01
Medium( 4.15 – 8.19)	53	58.88		
High (> 8.19)	14	15.55		



**Fig 10:** Distribution of the respondents based on Cosmopolitness (%)

**Conclusion**

The study concluded that majority of sugarcane growers had medium level of social participation, medium level of mass media exposure, less education level and feeble extension linkages. Nearly fifty per cent of respondents involved in jaggery production had secondary school education. Hence, intensive educational activities to develop entrepreneurial skills, as well as modernization of the Indian rural social system intended with compulsory education for youths of rural areas. Non-formal education through functional literacy would encourage sugarcane growers to engage in entrepreneurship. Most of jaggery producers are the medium extension contact hence they need exposure visits to the locations of progressive entrepreneurs; interactive

conversation with progressive could encourage the growth of entrepreneurial attributes in jaggery producers.

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