

Constraints Faced by the Farmers and the Consumers in Community Supported Agriculture (CSA) Model in Assam

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ABSTRACT

Community supported agriculture (CSA) is a system that connects the producers and consumers within the food system more closely by allowing the consumer to subscribe to the harvest of a certain farm or group of farms. It is a strategy to improve local agricultural economy and is a unique concept regarding the process of buying and selling. A total of 90 respondents comprising of 30 CSA farmers and 60 consumers each from Biswanath and Kamrup (Metro) districts were selected for the study. The constraints faced by the respondents while dealing with the CSA were identified and ranked by using Garrett Ranking method. The major constraints faced by the CSA farmers were

necessity of more finance among the members, difficulty in developing the consumer base, requirement of constant grade produce, more labor involvement and differences in opinion of the members. On the other hand, the constraints faced by the consumers of CSA system were less bargaining power, higher price of the products, shortage of product supply, lesser number of products availability. However looking at increasing awareness of the people on healthy and hygienic foods, CSA has great scope to be popularized throughout Assam as well as in the whole North-Eastern region.

Keywords CSA, Organic cultivation, Customers, Constraints.

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INTRODUCTION

Community supported agriculture (CSA) has no standardized model or definition, but is a method of food production which supports a direct partnership between the farmers and consumers in which the responsibilities, risks and rewards of farming are shared. A particular CSA group could be farmer-led, where local people invest in a farm or small holding and receive a share of the produce; or it could be

consumer-led, where local people source a piece of land and produce food for themselves. CSA, broadly defined, is a group of people who share in both the production and consumption of agricultural output (Polimeni et al. 2006). CSA program have been shown to be a viable networking and direct marketing approach, providing benefits to both farmers and consumers alike (Brehm and Eisenhauer 2008, Curtis 2011, Connor et al. 2010, Thilmany et al. 2008). CSAs in particular provide an opportunity for consumers to experience new foods, develop new social networks and reconnect community members with the land and the traditional practices of agriculture (O'Hara and Stagl 2001). Furthermore, a number of studies have discussed behavioral changes in relation to other purchasing decisions based on the knowledge acquired through CSA partnerships (Russell and Zepeda 2007).

Though CSA has wider scope in development and improvement of the local agricultural economy yet many problems are faced by the producers in terms of production as well as distribution of the produces. Similarly, the consumers also face different problems while purchasing the fresh produce from the farmers. CSA farm businesses depend heavily on reliable, enthusiastic and focused members or shareholders who implicitly trust the consumer to provide fresh and healthy products, especially in weekly basis.

Pabhoi Greens and a few farmers of Biswanath district of Assam have been trying to employ the concept of community supported agriculture in order to produce organic and fresh products and to improve the economic situation of themselves and the other farmers through employment generation and sustainability. In this paper an attempt was made to identify the problems faced by the farmers and the consumers while associating with community supported agriculture.

MATERIALS AND METHODS

The study was conducted in two districts of Assam namely Biswanath and Kamrup (Metro). A total of 30 CSA farmers were selected from the villages of Biswanath for the study. Furthermore, 30 CSA consumers each from the above mentioned two districts were also selected randomly to draw the conclusions.

The selected respondents were interviewed personally with the help of a semi-structured pertested interview schedule. The constraints faced by both the producers and the consumers included different constraints related to socio-economic, production and marketing backgrounds. After identification of constraints the data were tabulated and statistically analyzed to interpret the results. The quantification of data were done by first ranking the constraints based on the responses obtained from the respondents and then calculating it with the help of Garrett ranking method. In this method, the respondents were asked to rank the given problems according to the magnitude of the problem. The orders of merit given by the respondents were converted into ranks by using the following formula (Garrett and Woodsworth 1969) :

$$\text{Percentage position} = \frac{100 (R_{ij} - 0.5)}{N_j}$$

Where, R_{ij} = Rank given for i^{th} item j^{th} individual, N_j = Number of items ranked by j^{th} individual.

RESULTS AND DISCUSSION

Profile of the CSA farmers

Socio-economic characteristics of the CSA farmers are indicated in Table 1, which shows that maximum number of farmers fell in age group 31—45 years

Table 1. Distribution of CSA farmers based on their socio-economic characteristics (n=30).

Variables	Categories	Frequencies	Percentage
Age (years)	≤30 years	4	13.33
	31-45 years	20	66.67
	46-60 years	6	20
	Up to class V	1	3.33
	Below class X	2	6.67
	Class X	2	6.67
	Class XII	3	10
Gender	Graduate and above	22	73.33
	Male	28	93.33
Experience in agriculture	Female	2	6.67
	≤5 years	4	13.33
	6-10 years	12	40.00
	11-15 years	12	40.00
	16-20 years	0	0
>20 years	2	6.67	

Table 2. Distribution of consumers based on income (n=60).

Groups	Income (per month)	Frequency	Percent- age (%)
I	<Rs 25,000	16	26.67
II	Rs 25,001–50,000	22	36.67
III	Rs 50,001–75,000	13	21.66
IV	>Rs 75,000	9	15.00
Total		60	100.00

(66.67%). It can be stated from the table that middle aged farmers were mainly interested for community supported agriculture, which has been recently introduced in the Indian conditions. It is a common phenomenon that young and middle aged people try to build their farms in a different way than the traditional farmers and the study also portrayed the similar result. Majority (73.33%) of the farmers completed their education up to graduation and above levels. Among the CSA farmers a total of 93.34% respondents were found out to be male and a mere 6.67% were female. Table 1 shows that among the CSA farmers 40% each of the total respondents fell in the groups of 6–10 and 11–15 years experiences, followed by 13.34% in the group of less than five years and 6.67% in the group of having more than 20 years of experiences.

Profile of the consumers

A total of sixty (60) consumers were divided into four sub-groups based on their income as mentioned below (Table 2).

Table 3. Distribution of consumers based on age (n=60). Figures in parentheses indicate percentage to the row total.

Groups	No. of respondents	Age (years)			
		≤30	31-45	46-60	>60
I	16	4 (25.00)	7 (43.75)	3 (18.75)	2 (12.50)
II	22	3 (13.64)	14 (63.64)	5 (22.72)	–
III	13	2 (15.38)	8 (61.54)	3 (23.08)	–
IV	9	3 (33.34)	3 (33.33)	3 (33.33)	–
Total	60 (100.00)	12 (20.00)	32 (53.34)	14 (23.33)	2 (3.33)

Table 3 shows that out of all the 60 consumers, majority of the respondents (53.34%) belonged to 31–45 years age group, followed by 23.33% in 46–60 years age group and 20% in less than or equal to 30 years age group.

Distribution of the consumers on the basis of education qualification is shown in the Table 4. In case of pooled data, majority (61.67%) of the respondents had completed their education up to at least graduation level, followed by 30 and 5% respondents who had education up to class 12 and class 10, respectively. Similar trend was observed in all the 4 groups, where more than half of the respondents had at least graduation degree. It is important to mention that none of the consumers were illiterate or had education up to the primary level.

Table 4. Distribution of consumers based on educational qualification (n=60). Figures in parentheses indicate percentage to the row total.

Groups	No. of respondents	Educational qualifications			
		Below class 10	Class 10 pass	Class 12 pass	Graduate and above
I	16	2 (12.50)	1 (6.25)	5 (31.25)	8 (50.00)
II	22	–	1 (4.55)	9 (40.90)	12 (54.55)
III	13	–	1 (7.69)	3 (23.08)	9 (69.23)
IV	9	–	–	1 (11.12)	8 (88.88)
Total	60 (100.00)	2 (3.33)	3 (5.00)	18 (30.00)	37 (61.67)

Table 5. Distribution of consumers based on gender (n=60). Figures in parentheses indicate percentage to the row total.

Groups	No. of respondents	Gender	
		Male	Female
I	16	13 (81.25)	3 (18.75)
II	22	18 (81.82)	4 (18.18)
III	13	4 (30.76)	9 (69.24)
IV	9	9 (100.00)	–
Total	60 (100.00)	44 (73.33)	16 (26.67)

Table 5 depicts the gender details of the CSA consumers. In case of the pooled data, 73.33% respondents were male and the remaining 26.67% were female. Similar results were also observed in group I and II, where 81.25 and 81.82% respondents were found to be male, respectively. In group III, female (69.24%) were found more than the male (30.76%) respondents, where all the respondents of group IV were the male.

Constraints faced by the farmers in community supported agriculture

A total of 7 constraints faced by the CSA members were identified and ranked with the help of Garrett Ranking method, which are as discussed.

More financial involvement among members : More requirement of finance had been identified as the major constraint of the CSA farmers. More finance was required to meet up the cost of the necessary operations and overall activities of the farm.

Difficulty in development of consumer base : CSA was completely a new concept and the members revealed that it was not easy to attract customers completely towards a new marketing strategy. They had tried to promote the CSA concept personally to many of their consumers.

Requirement of constant grade produce : CSA members had tried to produce constant grade commodities to attract more customers towards their new venture,

Table 6. Constraints faced by the CSA farmers (n=30).

Sl. No.	Particulars	Garrett value	
		Mean score	Rank
1	More financial involvement among members	60.37	I
2	Difficulty in development of customer base	57.30	II
3	Requirement of constant grade produce	56.77	III
4	Requirement of more labor	50.13	IV
5	Differences in opinion of members	43.77	V
6	Delay in payment	41.00	VI
7	Transportation problem	40.67	VII

but practically it was not so easy mainly because of pest attack in the crops.

Requirement of more labor : Requirement of more labors was another constraint faced by the CSA members. In the absence of application of herbicides and pesticides, more labors were required to maintain the crop to the best possible extent.

Differences in opinion of members : CSA members said that sometimes their opinions were varying due to different mindsets and perception of the members towards the functioning of the firm.

Delay in payments and transportation problem were the other two constraints identified with CSA farmers (Table 6).

Constraints faced by the consumers in community supported agriculture

Less bargaining power : In case of CSA, the customers had less bargaining power as the prices were paid in advance to the producers during the time of placing the orders.

Higher price of products : The prices of the CSA products were pretty high in comparison to the commodities of the regular markets, mainly because of its organic nature.

Sometimes orders are not met fully by CSA due to shortage in production : Due to the rapid fluctuations in demand and supply of the ordered commodities,

Table 7. Constraints faced by the consumers with CSA (n=60).

Sl. No.	Particulars	Garrett value	
		Mean score	Rank
1	Less bargaining power	59.82	I
2	Higher price of products	54.00	II
3	Sometimes orders are not met fully by CSA due to shortage in production	50.55	III
4	Delivery of products is not possible in short communications	46.17	IV
5	Home delivery is not always possible	45.00	V
6	Lesser number of products availability	44.47	VI

many a times CSA members were unable to meet the demand of their consumers and it was ranked as one of the constraints by the consumers.

Non-availability of home delivery service to many places and availability of lesser number of products were also identified as constraints faced by the consumers (Table 7).

CONCLUSION

CSA is a mutually beneficial agreement between the farmers and the consumers and CSA provides fresh and healthy organic produce to the consumers. It is encouraging to note that most of the CSA farmers are in the age group of 30–45 years. Involvement of youths in agriculture is the need of the hour.

CSA farmers have not been facing problems in selling their produce. In fact, they are unable to meet the demands of the consumers. Hence, they want to induct more farmer members and to increase the

cultivated land area. Due to organic nature of the vegetables, various parties such as restaurants, educational institutions, grocery stores, processor are also interested to purchase the produce along with the normal customers.

Community supported agriculture creates democratic spaces of direct producer-consumer cooperation and thus presents a model for rethinking our food system. CSA farmers will play a critical role in creating healthy, diverse and joyful future food-loving communities. Looking at increasing awareness of the people on healthy and hygienic foods, CSA has great scope to be popularized throughout Assam as well as in the whole North-Eastern region.

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