

**DETERMINANTS OF RURAL YOUTH'S PARTICIPATION
IN COMMERCIAL AGRICULTURE: A CASE STUDY
FROM SOUTHERN BANGLADESH**

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Abstract

Youth development is a phenomenon related to human development, social development and economic development. To build up a developed Bangladesh it is a must to develop the youths that cover a vast portion of population. The aim of the study was to determine the extent of participation of rural youths in commercial agriculture under Bhola district of Bangladesh. Eighty (80) youths were randomly selected as the sample of the study. Data were collected from the sample youths by using a pre-tested interview schedule through personal interviewing. Among the youths, more than half (51.2 percent) have medium extent of participation in commercial agriculture while a little less than half (43.8 percent) of them have low extent of participation and only 5 percent have high extent of participation in commercial agriculture. On the basis of extent of participation 'Chili' ranked the first followed by 'Cucumber' and 'Bitter gourd' have positioned the second and third respectively. Correlation analyses indicated that seven characteristics of the youths namely education, family farm size, annual family income, credit support, cosmopolitaness, use of communication media, organizational participation and training received on agriculture showed significant positive relationships with their extent of participation in commercial agriculture. Regression analysis showed that four determining factors viz. education, credit support, training received on agriculture and use of communication media can explain 55.9 percent of the variation in the extent of participation of rural youths in commercial agricultural activities. Among them training received on agriculture alone can contribute the highest (40.3 percent) in the extent of participation in commercial agriculture.

Keywords: Determinants, participation, rural youth, commercial agriculture

INTRODUCTION

Bangladesh is a small developing country in South Asia. Most of the people depend on farming, the backbone of Bangladesh's economy. More than 75 percent of its total population is dependent on agriculture for their livelihood where 42.7 percent are directly engaged in agriculture (BBS, 2016). The contribution of agriculture to GDP is about 14.77 percent in which crop sub-sector alone contributes 55 percent and livestock, fisheries and forestry together render 45 percent (BBS, 2016). The increasing population and massive poverty in the rural areas have been a great threat to the development of Bangladesh. Poverty alleviation and employment generation for the vast segments of the population, especially the young, have hardly been a success (Mia, 2002). Most of these rural youth are not provided with the kinds of progress, activities, guidance, counseling and training for their proper growth and development.

Such circumstances have made the rural youth a burden in their own families and in the rural social system (Rashid *et al.*, 2001). But utilization of rural youth's potential is must for the socioeconomic development in the country.

The present situation of rural youth in our country can generally be characterized by illiteracy, lack of educational and training opportunities, unemployment, underemployment and the flight of large numbers of rural youth to the cities. In recent years, the adequacy of educational policies and programs as the main vehicle of national youth development has been called into question. Among the whole population of youth only 55 percent are educated (DYD, 2017).

The economic development of Bangladesh largely depends on her state of agriculture and farming community. Now agriculture has become entrepreneurial and modern technology oriented. In this perspective, it is a valuable proposition to augment the dissemination of modern and updated technology related to crop, livestock, aquaculture and forestry by engaging the teen-youth. Thus, hundreds of unemployed rural-teens would be involved in the mainstream of development process (Anwar, 1999). Besides, young people in rural areas share a desire to harness their potentials to become a dynamic force in eliminating poverty, hunger and unemployment (Bostami, 2008).

Youths of Bangladesh are stricken with multifarious problems that are rooted in social structure and economic condition of the society in which they live. Poverty is conspicuous, deep-rooted and widespread problem in Bangladesh that generates other problems (Sarker *et al.*, 2007). Youths are the main victim of poverty that constrains their proper education, training and development. It should be noted that education is one of the prime means of human development. But poverty is still a barrier to achieve proper education. Many youths leave their school before completing primary education because of financial crisis that increases dropout rate (Bostami, 2008). This dropout, poverty and unemployment situation leads them to engage in various crimes such as pick-pocketing, stealing, smuggling, shoplifting, snatching, terrorism, illicit drug and arms trafficking etc. In a word, they become a great burden to their family as well as our society. To overcome this difficult situation, it is very much essential to create proper opportunity of employment, wealth and education for the deprived youth (Saha, 1997). But it is so hard for the government of Bangladesh to create employment opportunity for this huge amount of youth. In this situation, active participation of the rural youth in commercial agriculture is of crucial importance for their self-employment (Basak, 1997). Thus, the present study was undertaken to assess the extent of participation of the rural youths in the study area and to explore the determining factors for manipulating the extent of participation in commercial agricultural activities.

METHODOLOGY

Study Area and Location

Two villages of Charfasson Upazila under Bhola district namely Jinnagor and Aslampur of Bangladesh were selected purposively as the study areas. Poverty, unemployment of the rural youths and engagement in commercial agriculture as the way of increasing family income have led the researcher to select these villages as locale of the research. The area of Charfasson Upazila is 1440.04 sq km and, located in between 21°54' and 22°16' north latitudes and in between 90°34' and 90°50' east longitudes. Total Population is 413593; male 213918, female 199675 (BBS, 2017). Figure 1 shows the study area.

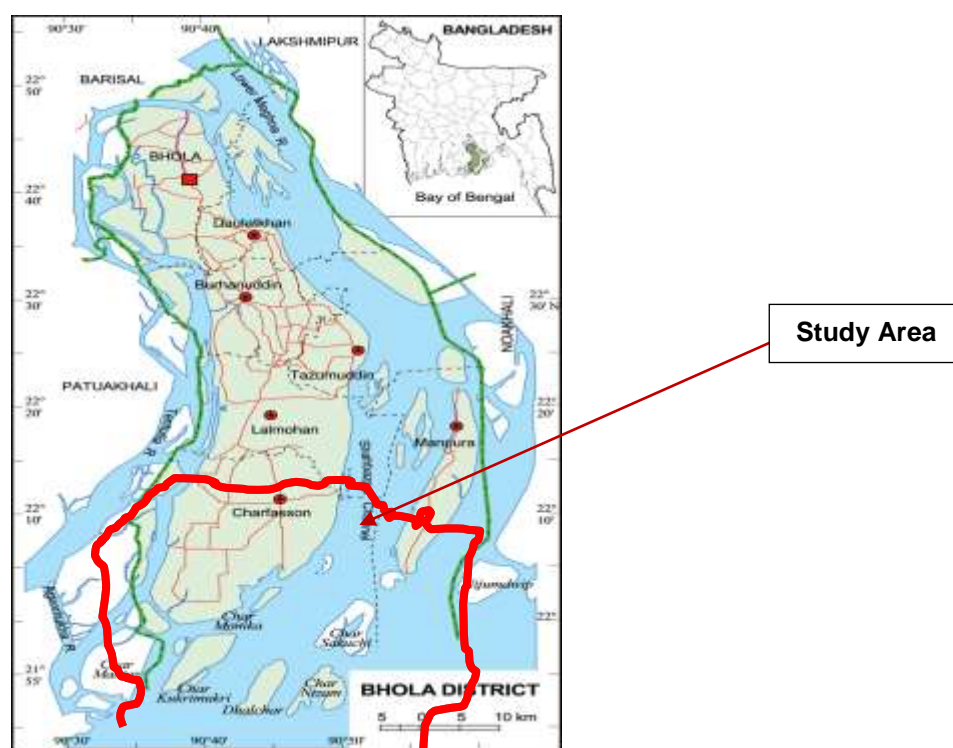


Figure 1. Map of Bhola district showing the study area

Sampling

Rural youth under the age group of 18-35 years in two villages namely, Aslampur and Jinnagor of Charfasson Upazila of Bhola constituted the population of the study. An up-to-date list of rural youths of these villages was prepared with the help of adult headers, villagers, school teachers and members of the respective Union Councils.

Youth populations in the desired age category were found to be 275 in Aslampur and 260 in Jinnagor. Therefore, a total of 535 youths in the two villages constituted the population of

the study. A simple random sampling method was followed to select the sample from the population.

Data Collection

An interview schedule was used in collecting data to determine the participation of rural youth in commercial agriculture. The draft interview schedule was prepared in accordance with the objectives of the study through Focus Group Discussion (FGD). The interview schedule was pre-tested on the 15 rural youth of the study area. Necessary corrections additions and modifications were made based on the pre-test results.

The data collection was carried out in October 2017. The researcher made all possible efforts to establish desired rapport with the respondents, so that they could feel free to respond to the questions contained in the schedule. During the interview, the researcher explained the purpose of collecting data to the respondent and did not face any difficulty to establish rapport in collecting data. To measure this dependent variable 4-point rating scale was used. The rural youths were asked to give their opinion on 19 items related to commercial agriculture. The score was assigned to each of the responses of youths as 3, 2, 1 and 0 respectively. By adding the assigned scores of 19 items of a respondent together, the opinion of the rural youth in commercial agriculture was obtained. Thus, the participation in commercial agriculture score of a respondent could range from 0 to 57.

Data Analysis

The collected data were compiled, tabulated, and analyzed in accordance with the objectives of the study. The Statistical Package for Social Science (SPSS) was used to perform the data analysis. Pearson's Product Moment Correlation Co-efficient was used in order to explore the relationships between the concerned variables. Multiple regression analysis was used to identify influential factors that have effects on the extent of the participation of rural youth in commercial agriculture. It helps to reveal highest coefficient of determination (R^2), that is, amount of participation due to the independent variables.

FINDINGS AND DISCUSSION

Selected Characteristics of the Respondents

The study took an attempt to analyze the socio-economic profile of the rural youths who were selected for this piece of study. Who are the rural youths, what is their actual living conditions those were visualized. In this regard empirical data were collected and presented in Table 1.

Table 1. Salient features of the selected characteristics of the respondents (n = 80)

Selected characteristics	Unit of measurement	Possible score	Observed score	Mean \pm SD
Age	Actual years	18-35	21-35	28.15 \pm 3.34
Education	Years of schooling	Unknown	0-12	5.91 \pm 3.55
Family farm size	Hectare	Unknown	0.025-3.6	1.74 \pm 1.23
Agricultural knowledge	Scale score	0-10	1-8	6.56 \pm 1.47
Annual family income	“000” BDT	Unknown	25-152	85.29 \pm 29.13
Credit support	“000” BDT	Unknown	0-50	26.0 \pm 24.42
Cosmopolitaness	Scale score	0-24	1-18	12.08 \pm 3.45
Use of communication media	Scale score	0-21	2-15	5.49 \pm 3.92
Organizational involvement	Scale score	0-27	1-18	8.49 \pm 4.63
Training received on agriculture	No. of days	Unknown	0-10	7.73 \pm 4.41
Innovativeness	Scale score	0-30	0-22	21.19 \pm 4.49

*SD = Standard Deviation; *BDT = Bangladeshi Taka

Data presented in Table 1 shows that the mean age of the respondent youth was 28.15 years with the standard deviation of 3.34. It is also exhibits in Figure 2 that among the respondent youths more than half (58.8 percent) of them were middle aged youth followed by a quarter (26.2 percent) elder youth. This means that the highest majority (85.0 percent) of the respondents were middle to elder aged youth group. It is expected that middle aged youth are more interested in participation in commercial agriculture (Rahaman, 2010). This is due to the reason that at this age they need to face practical reality of life.

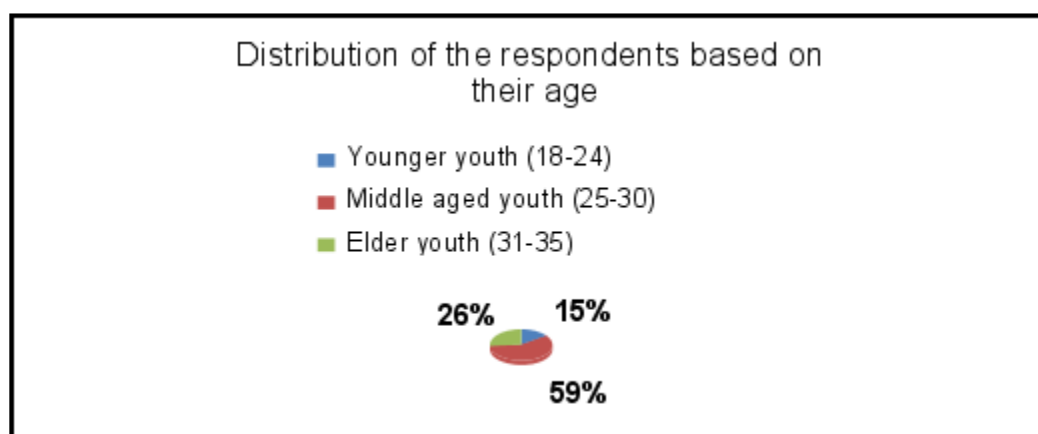


Figure 2: Distribution of the youths based on their age

Table 1 also depicts that the average education score of the respondent youths were 5.91 with standard deviation of 3.55. It is also evident from Figure 3 that a little less than half (42 percent) of the respondents had secondary education followed by 35.0 percent having primary education.

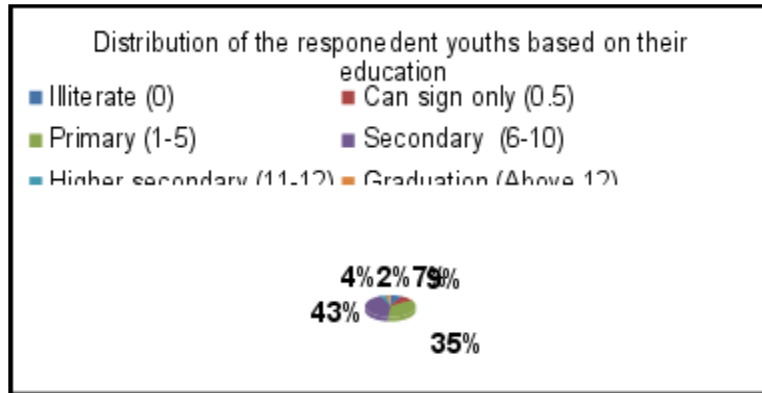


Figure 3: Distribution of the youths based on their education

Figure 3 also exhibits that 7 percent of the respondents had either higher secondary level of education or graduation. On the other hand, this is really frustrating the same portion (7 percent) of the respondent was illiterate and another 9 percent could sign only. It is assumed that educated youth are more progressive and innovative than those of illiterate with respect to participation in commercial agriculture (Akhter, 2007).

It is also evident from Table 1 that the average family farm size of the respondents was 1.74 ha with the standard deviation of 1.23. It means that average portion of them belongs to medium farm size category which is sufficient for operating agricultural practices in Bangladesh perspective.

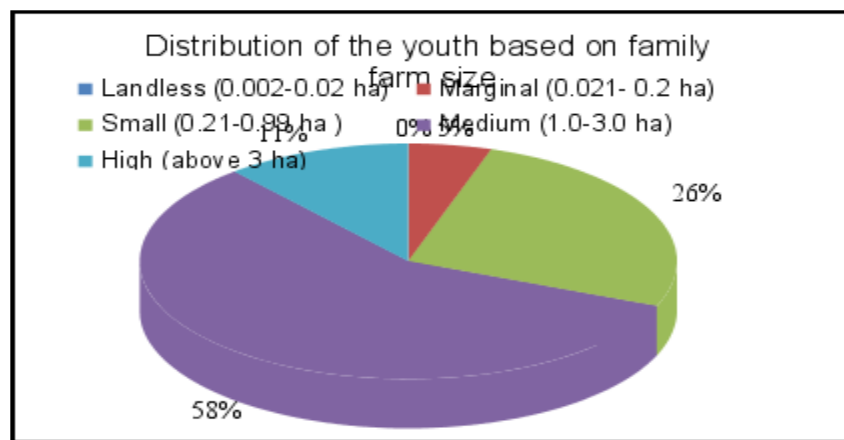


Figure 4: Distribution of the youths based on their family farm size

Figure 4 indicates that more than half (57.5 percent) of the rural youth belongs to medium size family farm category followed by a little large than a quarter (26 percent) were from small land holder farm families. Data revealed that the average agricultural knowledge of the rural youth was 6.56 with standard deviation 1.47. While their score of agricultural knowledge ranged from 1-8 in against of the possible range of 0-10. It means that the mean score of agricultural know of the respondent rural with was relative poor. If it is possible to improve their agricultural knowledge, that might contribute significantly in increasing their extent of participation in commercial agriculture (Aziz, 2004).

Findings also revealed that the mean annual family income of the rural youth was 85.29 thousand BDT with standard deviation 29.13 which is a bit higher than the national rural average annual family income of 18.35 thousand BDT (UNDP, 2016). As the rural youth does not have sufficient capital for starting commercial agriculture thus credit support is very essential for them. However, findings revealed that the mean credit support for the rural youth in the study area was only 26 thousand BDT which is really very insufficient. On the other hand, data presented in Table 1 shows that the average cosmopolitaness score of the rural youth was 12.08 in against the possible core of 0-24. As they rural youth had average cosmopolitaness score so they can easily get necessary information on commercial agriculture from different sources. This is really very natural that the higher cosmopolitaness scores the higher participation in commercial agriculture which was also supported by the findings of Khatun, 2004. However, the score of use of communication media of the rural was ranged from 2-15, in against of the possible score of 0-21. While their mean score of use of communication media was 5.49 with standard deviation 3.92. This poorer use of communication media score is really very frustrating, as the better use of communication media of rural youth is is needed to enhance their interest in participating in commercial agriculture (Bostami, 2008; Rahaman, 2010). Findings showed that mean organizational participation of the rural youth was 8.49 with standard deviation 4.63. It is a general idea that the rural youth having higher involvement with different organizations will have better capacity, better leadership ability to run any kind of enterprise, this capacity of the rural with may improve their extent of participation in commercial agriculture (Farouque and Anwar, 1999). Data presented in Table 1 shows that mean score of the rural youth on training received was 7.73 days with standard deviation 4.41. Findings also indicate that the innovativeness score of the rural youth was 21.19 with standard deviation of 4.49. Their innovativeness score ranged between 0-22 in against of the possible score of 0-30. It means that the rural youth has better innovative abilities. This is very common that the increased innovativeness of a youth may make him more interested to participate in commercial agricultural activities (Momen, 2010).

Extent of Participation of Rural Youths in Commercial Agriculture

The main purpose of the study was to assess the extent of participation of rural youth commercial agriculture. In this regard empirical data were collected and presented in Table 2. Table 2 indicates that a more than half (51.2 percent) of the rural youth had medium extent of participation in commercial agriculture compared to a little less than half (43.8 percent) had low extent of participation in commercial agriculture in the study areas. However, only a small portion (5 percent) of the respondent rural youths had high extent of participation in commercial agriculture.

Table 2: Distribution of the rural youth based on their extent of participation in commercial agriculture

Categories	Rural Youth		Mean	Standard Deviation
	Number	Percent		
Low extent of participation (0-19)	35	43.8		
Medium extent of participation (20-38)	41	51.2	22.06	9.94
High extent of participation (39- 57)	4	5.0		

Data presented in Table 2 revealed that the absolute majority (95 percent) of the respondents had either low or moderate extent of participation in commercial agriculture. This scenario is not satisfactory and should overcome immediately by taking necessary steps by concerned GOs and NGOs.

Additionally a participation index (PI) was developed and used to understand the extent of participation of rural youth in each of the selected commercial agricultural practices. Different statements regarding commercial agricultural practices for the present study were obtained from the FGD conducted during the field survey. Farmers, extension workers and local agricultural input dealers were the participants of the FGD. Finally 19 commercial agricultural practices (including crops, livestock and fisheries activities) were incorporated into the interview schedule and responses of the respondent rural youths were recorded accordingly and findings are presented in Table 3. Data presented in Table 3 shows that half (50 percent) of the respondents has never participated in commercial rice cultivation while another half (48.8 percent) had participated in commercial ice cultivation on a regular basis.

Data also showed that in case of wheat the second cereal in the country, rural youths participation was very poor and only more than a quarter (28.8 percent) of them regularly cultivate as commercial basis. However, rural youths' participation in commercial vegetable cultivation was much better than commercial rice and wheat cultivation. Data presented in Table

3 shows that 64 -70 percent of them regularly cultivate bitter gourd, bottle gourd and cucumber as commercial basis. While in case of pulses and oil seeds their participation was better in commercial cultivation of pulses. It is evident from Table 3 that less than half (41 percent) of them has participation in commercial pulses cultivation while a little more than a quarter (28 percent) has regular participation in commercial groundnut cultivation. However, data presented in Table 3 shows that among the crops two-thirds (75 percent) of the rural youths has participation in commercial chili cultivation. This is due to the reason that chili is grown well in the sandy soil of the char lands of the study area and it has a steady and better market price round the year. Thus, considering chili as a highly economic value most of the rural youth preferred to cultivate it compared to other crops.

Table 3: Participation of the rural youth in the selected items of commercial agriculture

Items of participation	Rural Youth(n=80)				Participation Index
	Regularly (%)	Occasional (%)	Very low (%)	Never (%)	
Cereals					
Rice	48.8	0	1.2	50.0	118
Wheat	28.8	13.8	3.8	53.8	94
Vegetables					
Pointed gourd	25.0	16.2	0	58.8	86
Yard long bean	26.2	13.8	0	60.0	85
Pumpkin	21.2	11.2	1.2	66.2	70
Cucumber	70.0	0	1.2	28.8	169
Bitter gourd	65.0	2.5	0	32.5	160
Bottle gourd	63.8	3.8	0	32.5	159
Pulses & Oil seeds					
Pulse	41.2	21.2	1.2	36.2	134
Ground nut	28.8	26.2	5.0	40.0	115
Spices					
Chili	73.8	1.2	0	25.0	179
Livestock					
Cow rearing	38.8	0	0	61.2	93
Goat	7.5	6.2	1.2	85	29
Duck	15.0	0	2.5	82.5	38
Chicken	15.0	0	2.5	82.5	38

Aquaculture					
Rohu (Rui fish)	23.8	1.2	0	75	59
Tilapia	22.5	2.5	0	75	58
Katla	13.8	7.5	0	78.8	45
Silver carp	6.2	10.2	1.2	82.5	32

Alike commercial crop cultivation, rural youths are coming up in livestock cultivation in the recent time in the study areas. Data presented in Table 3 shows that among the commercial livestock rearing rural youths' participation was higher in cow rearing. It is also evident that more than one-thirds (38 percent) of the youth regularly participate in commercial cow-rearing. However, duck and chicken rearing is also getting popularity day by day. However, like livestock cultivation rural youths in the study areas are showing their interest towards commercial aquaculture. Around a quarter of them are regularly cultivating rohu (rui fish) and tilapia as commercial basis.

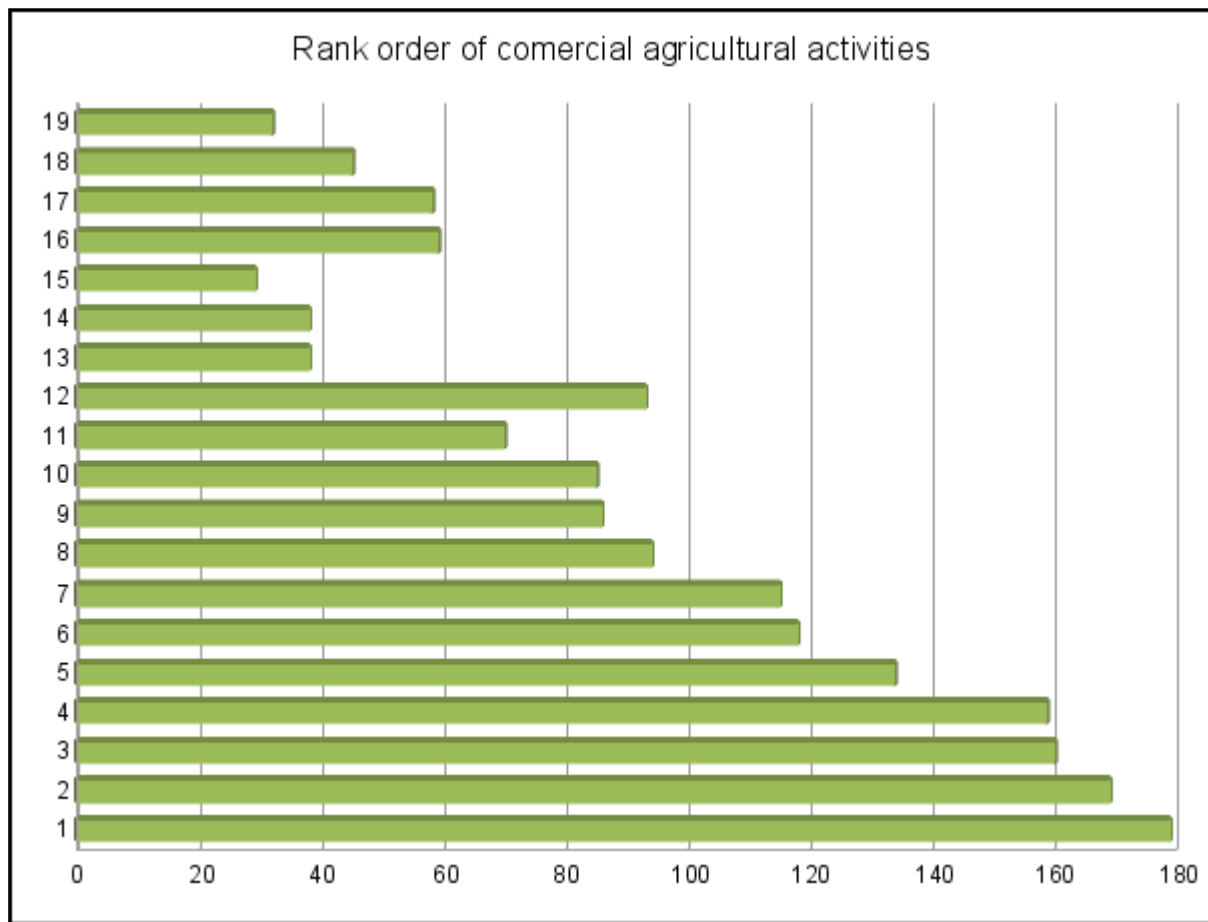


Figure 2: Rank order of different commercial agricultural practices

Figure 2 shows that chili, cucumber and bitter gourd positioned 1st, 2nd and 3rd position respectively among the commercial agricultural practices. Spices and vegetables have an important role generating farmer's income, creating employment opportunities and earning foreign exchange. In Bangladesh about 251872 acres of land is under the chili cultivation and the total production is approximately 130260 metric tons. Again about 23056 and 24750 acres are under the cultivation of cucumber and bitter gourd and the total production is approximately 63029 and 54539 MT per year (BBS, 2016). Bangladesh is the one of the major spices producing countries of the world. The area under the spices cultivation is 708898 acres with annual production of 1350648 tons (BBS, 2010) and the annual demand of spices seeds are 155463 tons (Noor *et al.*, 2008).

Vegetables are becoming an important component of agriculture sector in terms of area, production, value addition to GDP and export earnings, although the total cropped area under vegetable cultivation is very insignificant. If government takes some necessary measures and ensures quality of products then Bangladesh may take the significance share of \$2000 billion vegetable export market (Kamruzzaman & Takeya, 2008). There would be a possibility in future youth extension programs that it would become spices bias and partially vegetable become of the reality of the rural environment. However, among the vegetables pumpkin ranked last position in commercial cultivation.

Figure 3 also exhibits that among the commercial livestock enterprises practiced by the rural youth cow rearing ranked 1st. Next to cow rearing, duck and chicken ranked 2nd and 3rd position respectively. This is may be due to the reason that there are many pastures land in char land of river banks that makes easier to rare cow. On the other hand among the commercial livestock enterprises rural youth had lowest participation in goat rearing.

It is also from evident from Figure 3 that among all commercial agricultural practices the respondent rural youth had relatively lower participation in aquaculture activities. This is due to the reason that there are so many rivers in the study areas thus people have relative better access to open water fisheries and they have less interest on aquaculture. However, Figure 3 shows that among the commercial aquaculture activities cultivation of ruhu (rui fish) ranked 1st position. While tilapia, katla and silver carp ranked 2nd, 3rd and 4th position respectively.

Correlation between selected characteristics of the respondents and participation of rural youth in commercial agriculture

To determine the association between the socioeconomic characteristics of the respondent rural youth with their extent of participation in commercial agriculture correlation analysis was done. Here rural youth's extent of participation in commercial agriculture was taken as focus variable

and their socio-economic characteristics were taken as explanatory variables of the study. Research hypothesis (H_a) and null hypothesis (H_0) were formulated. The null hypothesis (H_0) of the study was there is no relationship between the independent and dependent variables. Pearson's Product Moment Coefficient of Correlation (r) was used to test the H_0 . To reject the H_0 , 1 and 5 percent level of probability was taken into consideration. Table 4 represents the summary of correlation test between the variables.

Table 4: Correlation between selected characteristics of the respondents and participation of rural youth in commercial agriculture (n= 80)

Independent variables	Computed value "r"
Age	-.104
Education	.561**
Family farm size	.438**
Agricultural knowledge	.206
Annual family income	.771**
Credit support	.825**
Cosmopolitaness	.331**
Use of communication media	.817**
Organizational participation	.465**
Training received	.839**
Innovativeness	.215

Degrees of Freedom (df) = 78

Tabulated value (r) = 0.250 (at 5 percent level) and 0.325 (at 1 percent level)

* Correlation is significant at 5% level of probability

**Correlation is significant at 1% level of probability

Data presented in Table 4 shows that out of eleven socio-economic characteristics of the respondents, eight characteristics such as education, family farm size, annual family income, credit support, cosmopolitaness, use of communication media, organizational participation and training received had positive and significant relationship with rural youth's extent of participation in commercial agriculture. However, age, agricultural knowledge and innovativeness of the respondent rural youth did not show significant relationship with their extent of participation in commercial agriculture.

Econometric Estimation of the Factors Affecting Participation of Rural Youth in Commercial Agriculture

Multiple linear regression analysis was employed to determine the determinants and their contribution in predicting the focus variable of the study, i.e., extent of participation of rural youth in commercial agriculture (Table 5).

Table 5: Summary of multiple linear regression explaining focus variable (n = 80)

Variables entered	Unstandardized coefficient(B)	Standardized coefficient (Beta)	t value	F value
Age	.076	.026	0.592	
Education	.379	.135	0.492	
Family farm size	-.218	-.027	-0.327	
Agricultural Knowledge	-.082	-.012	-0.242	
Annual family income	.014	.041	0.461	
Credit support	.175	.430	3.820*	49.001
Cosmopolitaness	.130	.045	0.750	
Use of communication media	.836	.330	3.561*	
Organizational Participation	-.244	-.113	-1.360	
Training received on agriculture	.626	.278	3.145*	
Innovativeness	-.228	-.103	-0.013	
R ² = 0.621 Adjusted R ² = 0.559				

Significant if $p < 0.05$, Level of significance = 95%

The results show that three explanatory variables out of eleven were significant in the multiple linear regression model as the F value was 49.001. It is evident from Table 5 that the adjusted R² value of the model is 0.559. Which means the significant explanatory variables (use of communication media, credit support and training received on agriculture) can jointly explain that about 55.9 percent of the variation in explaining extent of participation of the rural youth in commercial agriculture. The coefficient of credit support (t = 3.82 and $p < 0.05$), use of communication media (t= 3.14 and $p < 0.05$), training receive (t= 3.14 and $p < 0.05$) were significant. The results imply that these determining factors influenced the extent of participation of the rural youth in commercial agriculture in the study areas. The results also reveal that credit support of the youth had a positive coefficient, i.e., credit support helps rural youth to become an entrepreneur as result they get rid of from poverty and unemployment (Islam, 2001). The results show if rural youth use different communication media for getting access to different information related to commercial agriculture. This may be due to rural youth get more

information from different sources like Internet, Television, and Radio etc. (Momen, 2010). The result implies that increased in training facilities for the rural youth are more effective to become success in commercial agriculture. But youth of the rural area are not always participating in the training program due to lack of training facilities about commercial agriculture (Rashid, 1999). Therefore, the result may be due to the fact that higher participation in the training program was increase youth participation in commercial agriculture.

Step-wise Multiple Regression Analysis

To understand the contribution of each of the significant variables in explaining variation in the extent of participation of rural youth in commercial agriculture, a step-wise multiple regression analysis was conducted. Table 6 characterizes the output of the analysis.

Table 6: Summary of stepwise multiple regression analysis (n = 80).

Mode I no.	Variables entered	Unstandardized coefficient(B)	Standardized coefficient (Beta)	Adjusted R ²	R ² Change (% Contribution)
1	Constant + Training received	1.891	.839	0.403	40.3
2	Constant + Training received + Credit support	1.358	.992	0.525	12.2
3	Constant + Training received + Credit support + Use of communication media	1.68	1.043	0.561	3.6

The findings of the study show that three significant explanatory variables entered into the model show their individual and collective contribution in explaining the extent of participation of the rural youth in commercial agriculture. The findings also demonstrate that these three variables together can explain 55.9 percent variation in the extent of participation of rural youth in commercial agriculture in the study areas.

The first variable entered into the model was training received on agriculture of the respondents ($R^2 = .403$) which had the highest contribution (40.3 percent) in explaining the variation in the focus variable. This implies that with the increase of training received on agriculture by the rural youth are more likely to participate in commercial agriculture. Training can increase knowledge, skill and efficiency of the rural youth and motivate them towards commercial agriculture (Farouque and Anwar, 2001). The second variable entered into the

model was credit support of the respondents and it is shown that 12.2 percent variation of the focus variable was explained solely by the credit support of the respondents. The finding reveals that with the increasing support of credit of the respondents, they are more likely to involve in commercial agriculture using this credit as a capital for commercial agriculture. The reason behind this may be that providing credit to the rural youth is much more important because to become a successful entrepreneur they need initial capital to start an agricultural enterprise (Hasan, 2006). However, training received on agriculture and credit support of the respondents together can contribute 52.5 percent in explaining the variation in the extent of participation of rural youth in commercial agriculture. The third variable entered into the model was use of communication media by the rural youth which accounts for 3.6 percent contribution in explaining the focus variable. Use of communication media of the respondents helps to get effective and efficient information from different sources based on their need for information regarding commercial agriculture. A. youth can contact with extension agents and NGO workers before and after the starting the commercial farming practices (Farouque and Anwar, 2001). Different communication media like internet, television, radio etc. helps a youth to get production, weather forecast and market information for operating his or her commercial agricultural enterprise (Islam, 2001).

CONCLUSION AND RECOMMENDATIONS

In Bangladesh there are enormous potentials to increase the overall extent of participation of rural youth in commercial agriculture. The study shows that the majority of the rural youth have either low or medium extent of participation in commercial agriculture. However, it is possible to reduce mass unemployment of the youth through encouraging their participation in commercial agriculture. Among the nineteen commercial agricultural practices chili ranked the first and cucumber and bitter gourd ranked the second and third position respectively. So it may be concluded that spices and vegetables may be chosen as important commercial agricultural practices in the study areas and other areas of the country having similar socio-economic and agro-ecological perspectives. Correlation test showed that level of education, family farm size and annual family income, credit support, cosmopolitaness, use of communication media, organizational involvement and training received had positive significant relationship with their extent of participation in commercial agriculture. So these sorts of socio-economic characteristics of the youths may have excellent link with their extent of participation in commercial agriculture. Among the different determinants contributing to the extent of participation of rural youth in commercial agriculture training received on agriculture contributed the highest in increasing their extent of participation in commercial agriculture. However next to

training received on agriculture credit support and use of communication media are the most important determinants in explaining rural youth's extent of participation in commercial agriculture. Thus, it can be concluded that Department of Agricultural Extension (DAE) and other concerned GOs and NGOs need to work together keeping in mind the above mentioned determinants in expansion of commercial agriculture among the rural youth which ultimately contribute in reducing wide spread rural unemployment as well as poverty. However the study was conducted in one subdistrict of the country with limited number of sample size. In addition the study of the regression analysis can explain only 55 percent variation in explaining the extent of participation of rural youth in commercial agriculture. Thus, there are obviously other important determinates to be explored, hence further study is needed by the concerned agencies in this area.

REFERENCES

- Akhter, S. (2007). Participation of Rural Women in Homestead Waste Management towards Integrated Plant Nutrient System (unpublished master's thesis). Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Anwar, A. B. M. N. (1999). A Study for Involving Rural Youth in Extension Activities in Three Selected Villages of Mymensingh District (unpublished Ph. D. thesis). Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh, December, pp. 0-10.
- Aziz, M. A. (2004). Participation in Homestead Agriculture by the Tribal Women in Dinajpur District (unpublished master's thesis). Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Basak, N. C. (1997). Impact of BRAC Rural Development Activities as Perceived by the Participating Women (unpublished master's thesis). Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- BBS. (2010). Statistical Pocket Book of Bangladesh. Bangladesh. Bangladesh Bureau of Statistics, Ministry of Planning, Government of the People's Republic of Bangladesh, Dhaka.
- BBS. (2016). Statistical Pocket Book of Bangladesh. Bangladesh. Bangladesh Bureau of Statistics, Ministry of Planning, Government of the People's Republic of Bangladesh, Dhaka.
- BBS. (2017). Statistical Yearbook of Bangladesh. Bangladesh Bureau of Statistics. Statistics Division, Ministry of Planning, Government of the People's Republic of Bangladesh.
- Bostami, M. B. (2008). Participation of Rural Youth in Rural Development Activities (unpublished master's thesis). Department of Agricultural Extension & Information System, Sher-E-Bangla Agricultural University, Dhaka.
- DYD. (2017). Youth Profile in Bangladesh at a Glance. Dhaka: Department of Youth Development, Ministry of Youth and Sports, People's Republic of Bangladesh.
- Farouque, M. G. and Anwar, A. B. M. N. (2001). Extent of Participation of School Dropout Rural Youth in Selected Agricultural and Non-agricultural Activities Related to Income Generation: Bangladesh Journal of Agricultural Science, 28(1), 107-114.
- Farouque, M. G. and Anwar, A. B. M. N., (1999). Participation of Female Rural Youth in Selected Livestock Related Income-generating Activities. Bangladesh Journal of Agricultural Science, 28(1-2), 133-139.
- Farouque, M. G. and Anwar, A. B. M. N., (1999). Participation of Female Rural Youth in Selected Livestock Related Income-generating activities. Bangladesh Journal of Agricultural Science, Vol. 28(1-2), 133-139.
- Hasan, K. (2006). Participation in Farming Activities by Conventional and Organic Farmers (unpublished master's thesis). Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.

- Islam, S. (2001). Interest of the Landless Rural Youth in Income Earning Vegetable Cultivation in Two selected Villages under Mymensingh Sadder Upazila (unpublished master's thesis). Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Kamurzzaman, M. and Takeya, H., (2008). Importance, Structural Change and Factors Affecting Production of Vegetables in Bangladesh. *International Journal of Agricultural Research*, 3, 397-406.
- Khatun, F. (2004). Participation of Rural Women in Homestead Management Activities (unpublished master's thesis). Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Mia, M. S. A. (2002). Role of Small and Medium Enterprises in the Bangladesh Economy. *Contemporary Issues in Development*. BUP, 33, Road 4; Dhanmondi R. A., Dhaka 1205, 188-200 pp
- Momen, N. (2010). Participation of Rural Youth in Fish Farming Activities (unpublished master's thesis). Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Noor, S., Khan, M. S., Shil, N. C. and Talukder, M. R. (2008). Integrated Nutrient Management for Sustainable Yield of Major Spices Crops in Bangladesh. *Bangladesh Journal of Agriculture and Environment*, 4, 95-113.
- Rahaman, A. (2010). Participation of Rural Youth in Fish Farming Activities (unpublished master's thesis). Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Rashid, M. A., Hossain, L. and Mandal, K. H. (2001). Preference of Dropout Farm Youth in Income Generating Activities for Self-employment. *Bangladesh Journal of Extension Education*, 13(1&2), 99-103.
- Rashid, M. M. (1999). Willingness of Dropout Rural Youth for Undertaking Selected Agricultural Entrepreneurships in their Self-employment (unpublished master's thesis). Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Saha, N. K. (1997). Participation of Rural Youth in Selected Agricultural Activities in the Villages of Muktagacha Thana under Mymensingh District (unpublished master's thesis). Department of Agricultural Extension Education, Bangladesh Agricultural University, Mymensingh.
- Sarker, M. M. H., Haque, M. E. and Kabir, M. S. (2007). Involvement of Landless Rural Youth in Income Generating Activities in the Selected Areas of Bangladesh. *Journal of Innovation Development Strategy*, 1 (1), 18-22.
- UNDP. (2016). Bangladesh Statistics 2016, UNDP in Bangladesh. Available at, www.bd.undp.org/content/dam/bangladesh/docs/Publication/Pub2016/policy%20brief.pdf.