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Determinants of Intensity of Market Participation of Smallholder Mango Producers: The Case of Boloso Bombe Woreda, Wolaita Zone, Southern Ethiopia

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Abstract
This study aimed at identifying factors affecting intensity of market participation of smallholder mango producers in Boloso Bombe District in Southern Ethiopia. The study was conducted in four randomly selected kebele administrations in Boloso Bombe District. About 138 smallholder mango producers were selected randomly from four kebele administrations proportionally. Both qualitative and quantitative types of data were used. Primary data was collected by using both close ended and open ended (semi- structured) questionnaire and personal interview, focus group discussion and key informant interview was used to collect the data. Both descriptive and inferential statistics were used to analyze the data. Tobit model was used to identify factors affecting intensity of market participation of smallholder mango producers. The result obtained from Tobit regression indicated that variables such as family size, sex, postharvest loss and access to non-farm income determined intensity of market participation negatively and variables such as education, quantity of mango produced, access to market information and owning transport means determined intensity of market participation positively at different significance level. Therefore, promoting family planning, reducing postharvest loss, enhancing production and productivity, strengthening education and market information accessibility are quite important for promoting intensive involvement of the farmers in the market.
Keywords: Intensity of Market Participation, Market Participation, Tobit Model

Introduction

In Sub-Saharan Africa (SSA), growing both domesticated and wild fruit species on farms diversifies the crop production options of small-scale farmers and can bring significant health, ecological and economic revenues (Keatinge *et al*., 2010; Weinberger and Lumpkin, 2005). Mango is one of the fruit crop produced in most frost free tropical and sub tropical climates, more than 85 countries in the world cultivate mango. Mango is one of the most widely cultivated and globally traded tropical and subtropical fruit trees in the world (Clarke *et al*., 2011). Mango serves as a fruit crop and as a subsistence crop for family farms. As it ripens at the end of the dry season and at the start of the rainy season, the mango is a fundamental source of nutrition for rural populations **(Vayssières *et al*., 2012).** Mango fruit is an excellent source of dietary antioxidants, such as ascorbic acid, carotenoids, and especially phenolic compounds (Ma *et al*., 2011).

Fruits have significant importance with a potential for domestic and export markets and industrial processing in Ethiopia. The main fruits produced and exported are banana, citrus fruits, mango, avocado, papaya and grape fruits (Zeberga, 2010). In Ethiopia mango is produced mainly in West and East of Oromia, Southern nations and nationalities, Benishangul Gumuz and Amhara regions (Desta, 2005). Mango production in Ethiopia is in fluctuated conditions because of occurrence of diseases, lack of proper management and also weather conditions (CSA, 2009). More than 47 thousand hectares of land is under fruit crops in Ethiopia and mangoes contributed about 12.61% of the area allocated for fruit production and took up 12.78% of fruit production in comparison to other fruits growing in the country.

In Ethiopia mango sub-sector is a good entry point for tackling poverty and the market for mangoes is significant and growing (James *et al*., 2008). However, a review of literature in agro-industry value chain in Ethiopia indicated that the sector faces many challenges due to limited market outlets, limited efforts in market linkage activities and poor market information among actors (Dereje, 2007; Kaleb, 2008; Dendena *et al*., 2009). The largest part of the smallholder mango production is only partly marketed in the local fresh fruits markets. A multitude of factors related to the supply, quality and institutional arrangements in the value chain result in poor involvement of smallholder mango producers in market. As result of this, only a limited number of small farmers are involved in marketing and hardly any institutional arrangements in the oligopsonic wholesal e markets exist (Tigist *et al*., 2009). Correspondingly, Mamo (2009) argued that small scale, dispersed and unorganized producers are unlikely to exploit market opportunities as they cannot attain the necessary economies of scale and lack bargaining power in negotiating prices. Pedzisai (2014) indicated that understanding of the factors affecting market participation decisions as well as extent of participation and how the bottlenecks associated with these factors can be alleviated is fundamental in improving marketing and the well being of emerging and small holder livelihood. Thus, the question of smallholder participation and level of participation

in Agricultural Value Chains (AVCs) is of great importance to policymakers seeking to stimulate rural economic growth and poverty reduction (Barrett, 2008).

Nevertheless, studies conducted earlier on mango sector in Ethiopia (James *et al*., 2008, Tigist *et al*., 2009, Timoteos, 2009, Tiruneh, 2009, Bezabih, 2010, Ayelech, 2011, Seid and Zeru, 2013) did not touch factors affecting participation and intensity of market participation of small scale mango producers in spite of the fact that it is indispensable for the agricultural development programs. Mango is one of potential fruit crop produced in Boloso Bombe Woreda in Wolaita zone which has a significant contribution to the livelihood of small scale farmers in the area thereby contributing to the income of the majority of smallholder producers as well as ensuring of food security. But, market participation and level of participation of smallholder mango producers is subject to combined effect of socio-economic, demographic and institutional factors in the area. Although mango production in Boloso Bombe Woreda in Southern Ethiopia is high, information related with the determinants of smallholder farmers' participation and intensity of participation in mango market is lacking. Therefore, this study was conducted with the main purpose of identifying factors affecting intensity of market participation of smallholder mango producers in the area.

METHODOLOGY OF THE STUDY

Sample Size Determination and Sampling Techniques

Boloso Bombe Woreda was selected purposively as the study area based on the extent of mango production and participation of farmers in mango marketing. There are 18 rural kebele administrations in the Boloso Bombe Woreda. From these rural kebele administrations, 4 kebele administrations were selected randomly. Accordingly, Adila, Bombe, Mehal Ambe and Para wocha kebele administrations were selected randomly. There are about 1150, 1210, 1220, and 1360 mango producers in Adila, Mehal Ambe, Bombe and Para Wocha kebele administration, respectively. Sample frame was drawn for the study population of selected kebele administration and by employing Probability Proportional to Size (PPS), the number of farmers taken from each kebele was determined. Finally, based on the sampling frame drawn from each kebele administration, simple random sampling technique was applied to select the sample mango producing farmers. In addition to the purpose of the study and population size, three criteria usually need to be specified to determine the appropriate sample size: the level of precision, the level of confidence or risk and the degree of variability in the attributes being measured (Miaoulis and Michener, 1976). Cochran (1963) sample determination formula was adopted to determine sample representatives of the study population.

$$n = \frac{z^2 p(1-p)}{d^2} \quad \text{..... (1)}$$

Where: n = is the sample size, Z^2 = is equals the desired confidence level at 95% which is 1.96, d is the desired level of precision which is 5%, p is the estimated proportion of an attribute (homogeneity of the study population) that is present in the mango producers at 10%, and q is 1-p. The value for Z is found in statistical tables which contain the area under the normal curve. Accordingly, 138 mango producers were selected from the selected kebele administrations.

Table 1: Sample size determination of mango producers

Kebele	Number of mango producers (N)	Proportion (%)	Sample size (n)
Adila	1,150	0.23	32
Bombe	1,210	0.245	34
Mehal Ambe	1,220	0.25	34
Para Wocha	1,360	0.275	38
Total	4,940	1.000	138

Types, Sources and Methods of Data Collection

To conduct this study, both qualitative and quantitative types of data were used. Qualitative data collected may include demographic, socio-economic and institutional characteristics of mango producers. In addition to this, farmers' access to non-farm income and owning of on farm transport means were collected. Quantitative data like income from sale of other crops, age of the farmer, volume of mango production, postharvest loss, quantity of mango sold, selling price of the mango in unit of measurement, distance to the nearest market, other sources of income, etc. were collected. The study used both primary and secondary sources of the data that are consistent, available, adequate and reliable for the objective intended to be addressed. The primary sources of the data include sample respondents. Secondary sources of data include statistical abstracts, reports, journals and documents. To capture adequate data for the study, both close ended and open ended (semi- structured) questionnaire was prepared and personal interview and Participatory Rural Appraisal (PRA) tools such as focus group discussion and key informant interview were used.

Method of Data Analysis

To change the raw data of the study into fact, both descriptive and inferential statistics were used. Descriptive statistics such as frequency, mean, percentage, and standard deviation were used in the process of comparing socio-economic, demographic and institutional characteristics of households. In addition to this, descriptive tools like tables were used to present the results. Inferential statistics such as t-test, chi-square test, F-test (log-likelihood ratio test), Wald test and pseudo R^2 were used to test adequacy of the model and hypothesis for the statistical significance of parameters and variation among the sample households.

Specification of the econometric model

Majority of the smallholder farmers in the study area practiced mango production both for food and as a source of income. A large proportion of the farmers therefore participated in mango marketing; however, the degree of participation varies among households. This situation disqualified two step procedures like Heckman or Double Hurdle model in analysis of the data because of a fewer number of non-participants in mango market. Because of the predetermined selection of households based on production and marketing of mango in the study area, the data collected did not allow use of selectivity models. The model assumes that the decision to sell and the actual sales level were simultaneously determined by the same variables such that the variables that increased the probability of selling also increase the total amount of output sold. Tobit interprets all the zero observations as corner solutions where the household is assumed to be a mango seller with zero sales. The aim of the study was to look at factors that increase the level of farmers' participation in the mango market. Ideally, the Ordinary Least Square (OLS) model is applicable when all households participate in the market but in reality not all households participate or at the same level in the market. Some households may not prefer to participate in a particular market in favor of another, while others may be excluded by market conditions. If the OLS regression is estimated excluding the non-participants from the analysis, a sample selectivity bias is introduced into the model. Therefore, Tobit model was used to identify determinants of smallholder farmers' intensity of participation in mango market. This study purposively analyzed the intensity of market participation in order to trace factors that influence the degree of market participation among households in the study area. The observed amount of mango output Y_i^* that is actually sold in the market was used as a relevant proxy for intensity of market participation. The focus on intensity of participation would enable the identification of variations among the household specific mango output sale. The decision to participate in mango market and the intensity of participation were thus jointly determined (Sindi, 2008). The model assumes normal distribution with constant variance (Greene, 2003) and was specified as shown in equations below.

$$y_{i^*} = x_{i'}\beta + \epsilon_i, \epsilon_y \sim N(0, \delta^2)$$

$$y_i = 0 \; if \; y_i * \leq 0$$

$$y_i = y_{i^*} if \; yi^* > 0 \quad \text{..... (2)}$$

Where, y_i is the proportion of mango sold by a farmer and it took a continuous value between 0 and 1. $x_{i'}$ is the set of explanatory variables affecting the dependent variable, ' β is a vector of factors explaining values of the dependent variable and ϵ_i is error term which is assumed to be normally distributed. It may not be sensible to interpret the coefficients of a Tobit in the same way as one interprets coefficients in an uncensored linear model (Johnston and Dinardo, 1997). Hence, one has to compute the derivatives of the estimated Tobit model to predict the effects of changes in the exogenous variables. Thus, a change in X_i (explanatory variables) has two effects. It affects the conditional mean of Y_i* in the positive part of the distribution, and it affects the probability that the observation will fall in that part of the distribution. The marginal effect of an explanatory variable on the expected value of the dependent variable is:

$$\frac{\partial E(Y_i)}{\partial x_i} = F(z)\beta_i \quad \text{..... (3)}$$

Where, $\frac{\beta_i x_i}{\sigma}$ is denoted by Z following Maddala (1997).

The change in the probability of participation as independent variable X_i changes is:

$$\frac{\partial F(Z)}{\partial X_i} = f(z)\frac{\beta_i}{\sigma} \quad \text{..... (4)}$$

The change in intensity of market participation with respect to a change in an explanatory variable among participants is:

$$\frac{\partial E(Y_i/Y_i>0)}{\partial X_i} = \beta_i \left[1 - Z\frac{f(z)}{F(z)} - \left(\frac{f(z)}{F(z)}\right)^2\right] \quad \text{..... (5)}$$

Where, F(z) is the cumulative normal distribution of Z, f(z) is the value of the derivative of the normal curve at a given point (that is, unit normal density), Z is the z-score for the area under normal curve, β is a vector of Tobit maximum likelihood estimates and σ is the standard error of the error term.

RESULTS AND DISCUSSION

Market Participation of the Households

From the total households of the survey, about 87% and 13% of the sample mango producers were participants and non-participants in mango marketing, respectively. The participation of households in mango market is subject to the interactive effect of demographic, socio-economic, institutional and market factors. To examine the critical factors causing variation among market participants and non-participants, both t-test and chi-square test have been used for continuous and dummy variables, respectively as shown in Appendix Table2 and Table3.

Accordingly, the mean age of non-participants and participants in mango market is 43.11 and 42.87 years, respectively. The mean age of non-participants (43.11) is greater than that of participants (42.87 years). This implies that market participation decreases when age is increasing. But, statistical insignificance of mean age of the households indicates the age distribution of the households is almost similar. The mean production experience of non-participants and participants is 13.33 and 17.52 year, respectively, which is statistically significant at 1% level of significance. The mean production experience of mango market participants (17.52 year) is greater than that of non-participant (13.33 years). This implies that when farmers are getting more experienced in farming, their level of understanding on benefit of participating in mango market is increasing. The mean family size of non-participants and participants in mango market is 6.22 and 6.28 members, respectively. Statistical insignificance of the variable indicates that family size of participant and non-participant households is almost equal and explanatory power of the variable cannot be measured. Similarly, the mean distance to the nearest market is also insignificant indicating that distance to the market is almost similar for both categories.

The mean quantity of mango produced by households is statistically significant at 1% level of significance which is 1.8 quintal and 8.56 quintal for non-participants and participants, respectively. The mean quantity of mango produced by market participants (8.56 quintal) is greater than the mean quantity of mango produced by non-participants (1.8 quintal). This indicates that surplus production promotes market participation of farmers by increasing marketable amount. This is in line with the Omit *et al.* (2009) who found that the total quantity of output produced per season determines the market participation of farmers. The mean quantity of mango goes to postharvest loss is 1.58 and 1.27 quintal for non-participants and participants in mango market, respectively which is statistically significant at 5% level of significance. Increase in post harvest loss decreases the amount of mango available for market supply and hinders participation in market. Therefore, enhancing productivity and reducing post harvest loss is essential to enhance the market participation of small scale farmers and improvement of rural livelihood.

The mean income from sale of other crops is 3783.33 and 1737.5 birr for non-participants and participants in mango marketing, respectively. The mean income obtained from selling of other crops of non-participants (3783.33 birr) is greater than that of participants in mango market (1737.5 birr) which is significant at 1%. This indicates that better income obtained from selling of other crops like ginger discourages farmers' participation in mango market and creates a substitution effect over mango sector.

The chi-square test of dummy variables indicated that there were statistically significant difference between participants and non-participants in terms of educational status, access to extension service, access to credit, access to market, and owning transportation means. Accordingly, variables such as sex, access to market information and access to non-farm income are not significant indicating that there is no significant difference in frequencies of the variables across market participation. As depicted in Appendix Table3, educational status of households is found to be significant at 1% level of significance. Households attended formal schooling have participated more in mango market than households did not attend formal schooling as shown in Appendix Table3. This implies that being educated increases the probability of involving in mango market by fostering their ability of obtaining new ideas and innovations related with the market. This is in line with Heierli and Gass (2001) who indicated that level of education gives an indication of the household ability to process information and makes to have better access to understanding and interpretation of information than others.

There was significant difference between participants and non-participants in terms of access to extension at 1% probability level. Farmers who have access to extension service have participated more in mango market (71.7%) than that of farmers who do not have access to extension service (28.3%). This implies that extension service provision on better production and productivity of mango leads to the market participation of farmers. Similarly, there was significant difference between market participants and non-participants in terms if access to credit. It was found that market participants have more access to credit than non-participants. The proportion of farmers who have access to credit that have participated in mango (75%) is greater than that of farmers who participate in mango market without access to credit (25%). This implies that credit access enables farmers to purchase improved mango varieties and breeding of mango as well as owning of transportation means which improve their production and marketing system and eventually leads to farmers' participation in formal market.

There was significant difference between market participants and non-participants interms of access to

market at 1% probability level. The proportion of households who participate in mango marketing with access to market (96.7%) is greater than that of farmers who participate without access to market (3.3%). This implies that a market with potential demand for mango initiates farmers to sell their mango.

Owning transportation means has shown significant difference between market participants and non-participants at 5% probability level. The proportion of households who did not participate in mango market is 88.9% and 11.1% for households who own transport means and who do not, respectively. This indicates that the proportion of households who did not participate in mango market due to lack of transport means is greater than that of households who participate in mango market with own transport means. This implies that owning transportation means enables farmers to efficient involvement in market thereby contributing to the reduction in marketing costs.

Factors affecting intensity of participation in mango market

Tobit model was used to identify factors affecting farmers' intensity of participation in mango market in the study area. The overall significance and fitness of the model was checked with the value of chi-square; Pro>chi^2 = 0.000 which shows that the result is significant at less than 1% level of significance. The log pseudo likelihood value of -253.463 indicates that the assumption of null hypothesis that all predictors in regression model are jointly equal to zero is rejected at less than 1% level of significance. A pseudo R^2 value of 0.3756 indicates that about 37.56% of the variation of the dependent variable is due to variables included in the model.

Family size affected probability and intensity of participation negatively at 5% level of significance as depicted in Appendix Table4. A one unit increase in family size decreases the probability and intensity of participation of mango producers by 0.148% and 24.9%, respectively, keeping other variables constant. The actual quantity of mango supply conditional on decision to participate in the market also decreases by 24.3% if the family size increases by a unit. This implies that as family size increases, consumption of mango at household level increases and increased consumption of mango may lead to decrease in quantity of mango supplied to the market. This is in line with Adenegan *et al*. (2013) who indicated that larger household size in the study area consumed more of what they produced rather than participating in the cassava output market.

Sex affected the probability and intensity of participation negatively at 5% level of significance. Being female headed decreases the probability and intensity of participation in mango market by 0.585% and 81.8%, respectively, holding other variables constant. The actual sales level of mango conditional on decision to participate also decreases by 79.5% if the household head is female. This is in line with the Adenegan *et al*. (2013) who indicated that market participation intensity increases if the household head is male. Also Baden (1998) and World Bank (2003) indicated that women generally produce for more localized spot markets and in small volumes than men, and when they are involved in marketing of agricultural produce, they tend to be concentrated at the lower levels of the supply or value chain, in perishable or low value products.

Education of households positively correlated with the probability and intensity of participation in mango market at 5% level of significance. When a farmer is getting educated, the probability and intensity of participation in mango market increases by 0.538% and 98.5%, respectively, holding other variables constant. The amount of mango sales conditional on decision to participate in market also increases by 95.6% when the farmer is getting educated. This implies that educated farmers have a good ability of analyzing market condition and better exposure to the new ideas emerging from market. Quantity of mango produced affected the probability and intensity of participation of mango producers positively at less than 1% level of significance thereby increasing likelihood and intensity of participation by 0.325% and 54.8%, respectively, keeping other variables constant. The amount of mango sales conditional on decision to participate in market increases by 53.4% when quantity of mango produced increases by unit quintal. This implies that as quantity of mango produced increases, surplus of mango goes to market increases thereby contributing to the strong involvement of farmers in the market.

Owning transportation means has positive correlation with the probability and intensity of market participation at less than 1% level of significance. Owning of transport means increases the probability and intensity of participation by 0.637% and 120.9%, respectively, keeping other variables constant. The actual quantity of mango supply conditional on decision to participate also increases by 118.1% for households who own transport means. This implies that an on-farm transport facility owned by the farmers fosters intensive involvement of farmers in the market thereby reducing cost of transaction from production point to the sale. The result also revealed that access to market information has a positive correlation with probability and intensity of participation in mango market at 5% level of significance. Access to market information by mango producer increases the probability and intensity of participation by 0.61% and 78.3%, respectively, keeping other variables constant. And the amount of mango supply followed by decision to participate in the market increases by 75.7% if there is access to market information. This implies that access to information related with the price, supply and demand of mango in the market increases farmers' participation in mango market. This is in line with the Omiti *et al*. (2009) who found that market information were key incentives for increased sales.

Post harvest loss is found to be statistically significant at 10% level of significance thereby reducing the probability and intensity of participation by 0.004% and 6.1%, respectively, keeping other variables constant. The quantity of mango supplied to the market followed by the decision to participate decreases by 0.6% when post harvest loss increases by one unit quintal. This implies that post harvest loss of mango during harvesting and storage causes decrease in amount of mango supplied to the market which in turn decreases intensity of participation of farmers in mango market. Access to non-farm income is negatively correlated with the probability and intensity of participation in mango market at less than 1% level of significance. Farmers' access to non-farm income decreased the probability and intensity of participation in mango market by 1.292% and 127.2%, respectively, keeping other variables constant. And the actual sale of mango followed by the decision to participate also decreases by 122.2% when farmer has access to non-farm income. This implies that earning better income from non-farm activities like trading discourages farmers' intensity of participation in mango market because of the diversion of attention to better income generating activities. This is in line with the Adenegan *et al*. (2013) who indicated that access to non-farm activity affected market orientation of cassava producers in Nigeria negatively.

Conclusion and Recommendation

The major factors affecting intensity of market participation of smallholder mango producers in the study area are family size, sex, postharvest loss, access to non-farm income, education, quantity of mango produced, owning transport means and access to market information. Based on the result obtained from the current study, designing development programmes on reduction of post harvest loss of mango and promoting cold chain logistic system along the mango value chain is quite important. In addition to this, provision of improved mango harvesting material is quite prominent to reduce postharvest loss of mango at farm level and attention should be given on it. Promoting family planning program is quite important for the intensive involvement of farmers in the market. Educational coverage should be strengthened for further improvement of the mango sector in the area. Promoting gender equality and women empowerment in participation and intensity of participation in mango market is necessary. Access to market information and quantity of mango produced should be promoted and strengthened for the further improvement of mango value chain and commercialization of smallholder mango producers in the area.

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Appendix

Table 2: Statistical test of continuous variables across market participation

Variables	Market participation category				
	Non-participants		Participants		t-value
	Mean	SD	Mean	SD	
Age (year)	43.11	15.35	42.87	13.25	0.03
Family size (number)	6.22	2.29	6.28	2.6	0.606
Distance to the market (minute of walk)	16.50	14.74	15.6	11.54	0.632
Production experience (years)	13.33	5.13	17.52	6.05	2.763***
Quantity of mango produced (quintal)	1.8	1.00	8.56	7.72	3.729***
Post harvest loss in quintal	1.58	0.45	1.27	0.55	2.121**
Income from sale of other crops (birr)	3783.33	1412.44	1746.5	1200.63	6.547***

Note: SD stands for standard deviation, *** and ** are statistically significant at 1% and 5%, respectively
Source: Survey result (2015)

Table 3: Statistical test of dummy variables across market participation

Variables		Market participation category		χ^2-test
		Non-participants (%)	Participants (%)	
Sex	Female headed	43	57	1.954
	Male headed	48	52	
Educational status	Illiterate	100	45.8	20.04***
	Literate	0	54.2	
Access to extension service	No	72.7	28.3	13.785***
	Yes	27.3	71.7	
Access to credit	No	83.3	25	24.523***
	Yes	16.7	75	
Access to market	No	44.6	3.3	33.334***
	Yes	55.4	96.7	
Owning transportation means	No	88.9	59.2	7.45**
	Yes	11.1	40.8	
Access to market information	No	44.4	27.5	2.517
	Yes	55.6	72.5	
Access to non farm income	No	66.6	75	0.891
	Yes	33.4	25	

*** and ** is statistically significant at 1% and 5% level of significance, respectively
Source: Survey result (2015)

Table 4: Result of Tobit regression

Variables	Marginal effect of E (y*/y>0)	Std.error	Z	P>Z	Marginal effect of Pr(y>0)	Marginal effect of E(y/y>0)
AGE	0.0119	0.0145	0.82	0.411	$7.1*e^{-05}$	0.116
FMSZ	-0.249	0.1189	-2.11	0.037**	-0.00148	-0.243
SEX	-0.818	0.3251	-2.53	0.013**	-0.00528	-0.795
EDUC	0.985	0.4894	2.02	0.045**	0.00585	0.959
DISNEAMKT	-0.0094	0.0065	-1.45	0.150	$-5.6*e^{-5}$	-0.0091
ACCEXSER	0.494	0.3163	1.57	0.119	0.003335	0.480
ACCCRE	0.308	0.3390	0.91	0.363	0.00199	0.299
QUANMAPR	0.548	0.1124	4.90	0.000***	0.00325	0.534
ACCMKT	0.237	0.6791	1.35	0.234	0.0249	1.450
OWNTRAME	1.209	0.4331	2.80	0.006***	0.00637	1.181
ACMKTINFO	0.783	0.3804	2.07	0.041**	0.0061	0.757
PRICE	0.082	0.0650	1.27	0.208	$4.8*e^{-04}$	0.079
POSTLOSS	-0.061	0.0031	-1.97	0.051*	$-4*e^{-05}$	-0.006
INCOTHE	-0.0009	0.00012	-0.74	0.458	$-5.3*e^{-07}$	$-8.8*e^{-05}$
ACNONFAIN	-1.272	0.4358	-2.94	0.004***	-0.01292	-1.222

N = 138, dy/dx is marginal effect, left censored observations = 18, uncensored observations = 120, F (15, 123) = 58.22, Prob > F = 0.0000, Log pseudo likelihood = -253.463, Pseudo R^2 = 0.3756, ***, ** and * is significant at 1%, 5% and 10%, respectively
Source: Survey result (2015)