MERIT RESEARCH JOURNALS
www.meritresearchjournals.org

Merit Research Journal of Agricultural Science and Soil Sciences (ISSN: 2350-2274) Vol. 8(8) pp. 127-134, August, 2020
Available online http://meritresearchjournals.org/asss/index.htm

DOI: 10.5281/zenodo.4029349

Original Research Article

Impacts of Oilseed production on Socioeconomic of the communities in Abay chomen Distinct, Oromia Region, Ethiopia

Gemechu Bekana Fufa

Department of Statistics, College of Natural and Computational Science, Wollega University, Nekemte, Ethiopia

Email: gemechu.bekana@yahoo.com

Abstract

This study aims to analyze the impacts of oil seed production on socioeconomic of the communities. 270 sample respondents were selected using multistage random sampling from the study area. Multiple regression Models, Logistic regression models, test hypothesis: Z-test and t - test methods of data analysis were used in this study. The impact of producing oil seed on the educational status of the family, ability of the household to feed the family, housing conditions of the farmers and other factors those determine the production of oil seed was analyzed in this study. The result shows that more than 68 % households were producing the oil seed at study area. The findings of the study suggest that education, age of the producers, credit accessibility, the attitudes of farmers, off-farm income and farm size were the factors determining the production of oil seed. The results also imply that producers of oil seed are better off than the non producers in terms of sending children to elementary school, housing conditions and ability to finance their families'. After all analysis, it can be concluded that production of oil seed enables the farmer to send children to school, have improved housing conditions, and food secured than the non-producers. Finally, the results were recommended as creating the awareness about the uses of education, business awareness and advising the producers and non-producers to increases the production of oil seed.

Keywords: Oilseed, Communities, Agriculture, Sesame and Education

INTRODUCTION

Background of the Study

Agriculture is the mainstay of the Ethiopian economy. Its share accounts for more than 40% of the total GDP, 50% of foreign currency earnings and above 80% of employment creation. Both industry and services are dependent on the performance of agriculture, which provides raw materials, generates foreign currency for the import of essential inputs and food for the fast growing population. Agricultural products are used for local consumption and export to abroad. The main exportable agricultural products include: coffee, oilseeds, cereals, Gold, Chat, tea, live animals, fruits, Skin and vegetables constitute the highest components of the Ethiopian export trade (CSA, 2012 and Kasper. H. et al, 2014).

Oilseeds are the second largest export earner for the country next to coffee, contributing 14 percent to total export of the country and produced by more than three million farmers (ERCA, 2015). The country produces different types of oilseed varieties such as sesame seed, linseed, niger seed, sunflower seed, soybeans, cottonseed, and rapeseed. According to ERCA, in 2014/15 the country exported 367,436.15tons of oilseeds valued at 472.31 million dollars which was an increase of 113,249.69tons from 2013/14 period (Seegeler. C., 2013

and MoA, 2013).

Coffee, oilseeds, chat, and pulses are the main export products. The export-based flower industry is booming. Good growing conditions, low costs and government investment incentives attract Ethiopian growers as well as those from other countries such as the Netherlands, Israel and India. The Ethiopian government has indicated that the oilseeds sesame seed, niger seed, and safflower seed are high-priority export crops. These oilseed products come from different parts of the country (Gemechu, D., 2013 and Tefera N., 2016).

Abbay Chomen distinct is one of the main producers of Oil seed in Horro Guduru Wollega Zone of Oromia Regional State. The main Oil seeds produced in this distinct are Sesame and Niger (Nug) (Horro Guduru Wollega Zone, 2015 and 2017). Niger and Sesame are highly produced in Abbay Chomen distinct and used for local consumption and export to the abroad and generate high amount of income to the country (CSA, 2013). Sesame, generating the largest foreign currency second to coffee, its export performance has been fluctuating due to varying reasons (Amare H., 2014). Most farmers in abay chommen distinct grow sesame as a cash crop commodity irrespective of subsistence farming.

There are different empirical studies on the possible oilseed production and exportable. Agricultural exports have a positive significant impacts on economic growth in cameroon and economic growth of Cameroon specifically with reference to coffee, banana and cocoa using co-integration test (Angie H., 2013, Noula *et al.,* 2014), Muhammad (2010) examined the contribution of agricultural export to economic growth of Ethiopia by estimating the relationship between agricultural exports and non-agricultural exports to economic growth of Ethiopia by employing Johansen co-integration technique for the period 1972 to 2015 and The results of the study indicated that there was negative and insignificant relationship between the agricultural exports and economic growth (Wijnands et all, 2015, Kindie A., 2007).

Other studies show that the export agricultural products have generate high amount of income for the country (Noah, 2018). Coffee and oilseed are the main products and exportable commodities in Ethiopia (Getahun, 2013), these products sourced from local producers and there is very little attention to the producers as the country level (Getahun, 2013).

The contribution of sesame exports to economic growth of developing countries was done using panel co-integration techniques and the results showed the sesame production and export is increasing from time to time (Shahidur et al. 2010, Wijnands, 2009; Yishak, 2009) and many industries focus on sesame for oil input (Dawson, 2005). Others study also shows that there very little attention to the production and producers of oil seed and only focus on the products at market. Ousmanou *et al. (*2003) examined the technology adoption to the oilseed in the local producers were very less as compared to other agricultural products. These shows that giving the attention to the main producers of the commodities is important.

To the best of my knowledge, there has been little studies undertaken on the impact of oilseed product on the Producers. If we agree that export trade contributes to the economy of the country and the income of those involved in export trade and oilseed as the most important export oriented agricultural product in Ethiopia, we have to study the impact of producing it on the livelihood of the producers

There are limited researches conducted on producers and its correlates with products Ethiopia. The implication is that the producers of export-oriented product were not given attention. Beside this, most research papers focuses on the national level economy change of the country than at zone or distinct level. Thus, this study focuses to assessment the impacts of oilseed production on socioeconomic producers in study area.

Objectives of the study

The major objective of this study is to assess the impacts of oilseed products on socio-economic of producers in terms of education, frequency of feeding and ability to finance. Specifically, this study aims:

- *To assess the socioeconomic impact of producing oil seed on producers in terms of education.*
- *To analysis the housing conditions of the producers.*
- *To assess the ability to finance in the family.*
- *To compare the producers and non-producers of oil seed of the study area.*

MATERIALS AND METHODS

Data Collection Methods

This study was conducted in Abay chommen district, Horro Guduru wollega zone of the Oromiya National Regional State, Ethiopia. The study applied multistage sampling procedure. The participants of the study were selected using multistage random sampling. First the random samples of kebeles in the districts were then selected and the data were then collected from the administration offices of the selected Kebeles. On the second stage, the peasant associations (PAs) were grouped in the same way and sampled for the study. Finally, the household's producers were selected random sampling procedure. The 270 households were selected from the distinct of the zone of farm households by random sampling procedure.

The secondary data was collected from Agricultural Development Offices and publications of the distinct and Zone. On the other hand, Primary data was collected by personal interview of the farmers, using

a questionnaire that had been pre- tested on the farmers residing in the villages around Fincha'a suger factory.

Methods of Data Analysis

The main objective of this study was to assess the impact of producing oil seed on socioeconomic of the households. To meet the objective, different comparisons were made between the *producers* and *non- producers*. This study defines producers as those who produce either sesame or nug or both. If the producers neither sesame nor nug, he/she is considered as non-producer. To assess the impact of producing oilseed on the educational status of the family, the researcher was used *the ratio of children in schools and those who have attended regular schools to the total number of school aged children in the family*, expressed as percentage.

The ability of the household to feed the family was also seen in terms of *the frequency of feeding the children and the adult*. The percentage of farmers *having corrugated iron sheet roofed houses, the percentage of farmers having separate kitchens other than their living rooms for cooking and the percentage of farmers having separate structure for livestock other than the living room* were used to assess the impact of oilseed products on the housing conditions of the farmers. The strategy used by the farmers to *finance the household expenditures in times of food shortfalls and/ or crop failure was also another parameter* to assess the impact on the food security of the farmers. With this respect, the percentage of farmers using food aid as one of the strategies or the only strategy in times of food shortfalls and crop failure was used.

The Z- test for the difference between two population means:

Suppose that there are two samples drawn independently from two populations with mean μ_1 and μ_2, respectively. Then, the test about the significance of the difference between the two means takes one of the following forms:

$H_0 : \mu_1 - \mu_2 = 0$ Vs $H_1 : \mu_1 - \mu_2 \neq 0$ ---------- (1)

OR

$H_0 : \mu_1 - \mu_2 = 0$ Vs $H_1 : \mu_1 - \mu_2 >$ ----------(2)

OR

$H_0 : \mu_1 - \mu_2 = 0$ Vs $H_1 : \mu_1 - \mu_2 < 0$ ----------(3)

Where, H_0 and H_1 stand for the null and alternative hypotheses, respectively.

The test statistic is then given by:

$$Z = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}} \quad \text{---------- (4)}$$

Where, n_1 is sample size from population1, n_2 is sample size from population2, $\bar{X}_1$ is the mean of the sample taken from population1, $\bar{X}_2$ is the mean of the sample taken from population 2, S_1^2 is the variance of the sample taken from population 1, S_2^2 is the variance of the sample taken from population 2.

For a specified Type I error a , the null hypothesis will be rejected if: $|Z| > Z_{a/2}$, for the first form; $Z > Z_a$ for the second form; and $Z < -Z_a$ for the third form of the hypothesis. Rejecting the null hypothesis means that there is a significant difference between the means of the two groups.

The Regression Analysis

The method of data analysis to measure the functional relationship between a quantitative dependent variable and one or more independent variables is the regression analysis. A linear regression equation of the a dependent variable Y on k independent variables

$X_1, X_2, \ldots, X_k$ is given by

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_k X_k + \varepsilon$ ..... (5)

Where,

$\beta_1, \beta_2, \ldots, \beta_k$ are the slopes (the change in Y for the unit change in the explanatory variable X_i), β_0 is the value of Y when all independent variables assumes zero value ε is the random term. The coefficients of the linear regression model are estimated under the assumption that the random term assumes normal distribution with *zero mean* and *constant variance*. The values of the random term are also assumed to be independent of the values of the variables in the model and of the values of the error term for other cases.

After fitting a linear regression model by estimating the coefficients (Using *SPSS*), we have to test whether the coefficients are statistically significant. This can be done either by testing the overall significance of the model or by testing the significance of the individual coefficients.

Logistic Regression Analysis

In logistic regression model, the dependent variable is a binary or dichotomous taking two values 0 and 1 showing the probability of occurrence or otherwise of an event. Logistic regression determines the impact of multiple independent variables presented simultaneously to predict membership of one or other of the two dependent variable categories. This type of regression can be explained as follows:

Suppose we have a dependent variable assuming only two values 1 (for presence of a character of interest and 0 for the absence of the character of interest)

and K explanatory variables. The conditional expectation of Y given X, E(Y=1/X) is given by:

$$\pi(x) = \frac{e^{\beta_0+\beta_1 x}}{1+e^{\beta_0+\beta_1 x}} \text{ ----------} (6)$$

Where β_0, β_1 are the coefficients.

The basic logistic regression analysis begins with logit transformation of the dependent variable through utilization of maximum likelihood estimation. This is done using what is popularly known as Odds Ratio. The odds ratio for an event is represented as the probability of the event outcome divided by one minus probability of event outcome. The odds ratio is given by:

$$Odds = \left[\frac{\pi(x)}{1-\pi(x)}\right] = \text{ ----------} (7)$$

Where *P(X)* is the probability of success if event will occur and *1 - p(x)* is the probability of failure if an event not occurring. Hence equation (7) can be transformed into an alternative form of logistic regression equation by taking the logarithmic transformation of equation (8) also called the logit transformation yields:

$$g(x) = ln\left[\frac{\pi(x)}{1-\pi(x)}\right] = \beta_0 + \beta_1 x + \varepsilon \quad (8)$$

For K explanatory variables x_1, x_2, …, x_K, g(x) is given by

$g(x) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \ldots + \beta_K x_K + \varepsilon$ ---------- (9)

The principles that guide an analysis using linear regression analysis was also guide as in logistic regression except that the dependent variable in logistic regression is binary and the error terms have binomial distribution (Hosmer and Lemeshow, 1989).

RESULTS AND DISCUSSIONS

Descriptive Analysis

This part of the paper discusses the major findings of the study. It begins with analysis of the descriptive result on the main variables used in the regression analysis followed by discussion of results obtained from estimation methods used under each objective of the study. The result shows that there are 180 producers and 90 non- producers having children in this age group. The mean percentage of children who had completed or were attending elementary schools at the time of the survey was found to be 68.35% and 31.65% for the producers and non- producers, respectively as shown in table 1 below.

To test the significance of this difference we used the one tailed test. The calculated Z using was found to be Z_c = -1.96, is less than the corresponding tabulated value -1.64, at a = 0.05. Thus we reject the null hypothesis that there is no difference in the proportion of *producers and non- producers* and conclude that the percentage is higher in the producers group.

Attempts were also made to determine other factors contributing to the variation in the producers and non-producers.

As shown from table 2, the means and standard derivations of the observation variables (covariate) of Producers and non-producers. it is inferred that the mean age of oil seed producers in the study area is about 33.25 years while that of non-producers is nearly 36.47 years. Moreover the mean difference of the ages of Producers and non producers is 3.1 and significant at 5% level. But the average age of all the sample households is nearly 33 years which is the indication of the fact that most of the farm household heads are in the adulthood age. The mean education level of the Producers is grade 5 while the mean education level of the non-producers is less than grade 5, with their mean difference nearly 2.526 which is also significant. This shows that the producers are more educated farm household heads than the non-producers.

Family size of producers and the non-producers are almost 3 & 5 respectively on average. These results show significant mean difference of 0.73 and the size of household members of the non producers is bigger than that of the producers nearly by one person. The mean (average) farm size of the Producers of oilseed is 2.15 hectare while that of non-producers are only 0.73 Ha. From the total sample households 57% of the producers responded to have enough amounts of the inputs while 56% non producers responded the same with significant mean difference of 0.422. This means that the 32.2% more producers have more opportunity of getting the required amount of improved seeds and fertilizers than non-producers (*see table 2).*

Logistic Regression Analysis

Out of all the independent (explanatory), the variables age, farm experience, use of hired labour, availability of training and extension services were excluded from the logit analysis of the adoption decision and the propensity score match of the impact analysis. This is because with those variables with their very high VIF (variance inflation Factor), if included, the very high multicolearity problem will be created. Table 3, below shows the result of logistic regression on the production decision of the farm house holds of the study Woreda for which the VIF level was feasible (5.46) on average.

As we can see from logistic regression, table 3, the variables education, credit a accessibility, the attitudes of farmers towards fairness of cost of inputs and having off-farm income & farm size affected farm households decision positively and significantly at 1% significant level while Family size negatively influenced the decision of household at 5% significant level in

Table 1. Comparison of the average percentage of Producers and non-Producers in study area

Producers Group	Sample Size	Mean	Stand. deviation	Percentage
Non – Producers	90	23.86	31.94	31.65%
Producers	180	48.2	46.58	68.35%

Table 2. The mean standard deviations and mean difference of producers and non-producers.

Variables	*Tot. Sample*		*Producers*		*Non-producers*		*Mean Diff.*	*t-Value*
	Mean	*Std.*	*Mean*	*St. Dev*	*Mean*	*St. Dev*		
Age of HH head (in years)	33.7	7.65	33.25	7.42	36.47	7.16	-3.10	2.26
Gender of HH head(1= male 0 = female)	0.81	0.28	0.82	0.257	0.80	030	0.01	0.26
Educ. level of HH head(years schooling)	5.63	3.47	5.00	3.162	3.25	3.22	2.526***	5.10
Family Size HH (No. of members)	3.25	3.23	3.85	3.46	3.57	3.47	-0.73	0.21
Distance to market center(in Km)	3.23	3.23	1.13	2.47	0.77	2.43	0.26	0.42
Credit access Of HH(1=access,0=not)	3.23	3.23	2.13	3.21	0.76	2.13	0.23	0.47
Farm size(number members)	3.65	2.57	2.15	3.47	0.73	2.47	0.47	0.47
Seed supply time(yes=1,no=0)	3.12	3.12	2.75	3.23	0.47	2.46	0.75	0.46
Extension service(yes=1,no=0)	5.03	3.65	3.42	3.42	0.47	2.46	0.46**	0.43
perception of cost inputs(fair=1, not=0)	0.47	0.47	0.53	.47	0.47	0.65	0.432	0.472
Sufficiency of input supply(yes=1,no=0)	0.52	0.67	0.57	0.47	0.56	0.47	0.422***	0.25
Farming exper.(years of farming)	0.68	0.57	0.237	0.53	0.68	0.47	0.432***	0.271
Availability of training (yes=1,no=0)	0.41	0.47	0.45	0.46	0.45	0.75	0.21	0.26
Income from off farm labour Particip.	0.53	0.63	057	0.53	0.63	0.57	0.43**	0.23
Dependency ratio	0.47	0.47	0.47	0.53	0.63	0.53	0.13	0.17
transportation facilities(yes=1,no=0)	0.47	0.63	0.47	0.43	0.53	0.73	0.41**	0.47
Fear of farming risk(yes=1,no=0)	0.47	0.43	0.62	0.41	0.75	0.42	0.43	0.25
Hired labour (yes=1,no=0)	0.53	0.62	0.42	0.62	0.53	0.63	0.23	0.47

Table 3. The logistic regression results and their probabilities

Production (Variables)	Coeff.	Odds Ratio	Marginal effect	Std. Error
Gender(sex) of household head	0.21	0.37	135	0.792
Education of household head	0.27***	1.35***	0.07**	0.079
Family size of the sample household	- 1.23***	0.331	0.132***	0.075
Distance to market center	0.151	0.177	0.01	0.793
Credit accessibility of the sample household	0.193***	0.53***	0.39***	0.720
Farm size of the sample household	0.23	0.133	0.31	0.59
Time of input supply	0.22	0.033	0.157	0.32
Availability of extension service	2.01	0.227	0.173	0.35
perception towards Cost of inputs	2.35***	0.33***	0.312***	0.735
Sufficiency of improved seed	0.32	0.359	0.321	0.359
Participation in off-farm labour	2.77***	15.23***	0.37**	0.570
Fear of climatic risk in farming	0.152	0.152	0.359	0.233
Availability of Transport facilities	0.233	0.27	0.531	0.771
Asset ownership of the sample household	0.123	0.331	0.32	0.572
Constant	3.237			
LR $\chi2$=112.3				
Prob > $\chi2$ = 0.001				

*Log likelihood = -30.720972, Pseudo R2=0.3933 Key ***, **& * in the above table show 1%, 5%, 10% significant level respectively.*

Table 4. *The impacts of oil seed production on Educational status, Food security and housing condition of households.*

Households	Educational status			Frequency of feeding			Roofing Material			Cooking Place		
	Mean	Stand. Dev.	Perc. (%)	Mean	Stand. Dev.	Perc. (%)	Mean	Stand. Dev.	Perc. (%)	Mean	Stand. Dev.	Perc. (%)
Producers	38.42	21.23	58.5	36.25	28.23	45.3	53.23	26.24	57.25	54.23	32.32	53.35
Non-prod.	32.14	17.24	41.5	38.23	24.23	54.7	46.32	23.23	42.75	45.39	25.27	46.65

production.

Education level of household head is found to be very significant determinant factor at 1% significant level in the study area. This means that as the education level of the respondents increased, their production decision also increased significantly. This indicates that the more the household heads are educated the more they decide to enter into the oil seed production. That means education has strong influence on the households‟ decision and leads towards modern way of agricultural activity. table 3 also shows that the marginal effect of household's head education level is 0.07. This shows that with an increase of one schooling year the probability of being a producer of the oil seed increases by 0.07 keeping other variables constant at their means. Credit accessibility of the households is found positive and significant factor at 1% significant level on the production decision of households of the study woreda as hypothesized. This means that the more these farm households were accessible to Credit facilities the more they were motivated towards the production of export oriented agricultural products (oilseed). This is because as farm households get sufficient credit, they are able to purchase the improved seed and fertilizers on the time it is required, and on the desired amount.

The result also shows that the marginal effect for credit accessibility is 0.39. This means that the probability of being producers with access to credit is greater than the being producers without access to credit availabilities by 0.39 keeping other variables constant at their means. The other positive and significant factor that determined the farm households‟ decision of oil seed production at 1% significance level in the study area is the household heads‟ attitudes towards the fairness of the cost of inputs; that is the more the farmers think that cost of inputs (improved seed and fertilizers in this study) as fair, the more they produce.

The other factor which affected the farmers‟ decision positively and strongly at 1% significant level is having off form income. This result indicates that a household, who has income outside farming activities, is more probable to become producer of the oil seed than the one with no such opportunities. In the table 3, we also see that the marginal effect of having off-farm income from off-farm labour participation is 0.37. This indicates that the probability of being a producers of oil seed of the one who has off-farm income is greater than the probability of the one who does not have off-farm income by 0.37, keeping other variables at their means. This means that having incomes other than farming activities has strong positive role on the decision of households in accepting the new agricultural technologies and using high for high production.

The farm size influenced the adoption decision of the farm households positively and significantly at 1% significant level. This indicates that the more farmers have larger farm sizes, the more they become producers of the oil seed. The positive coefficient of the regression result indicates this fact. This means that households with larger farm size are more producers of the oil seed. The marginal effect of farm size is also 0.37 showing that increase of farm by one hectare increases the probability of producers than the non-producers by 0.37 keeping other variables at their means.

The family size has a negative influence on the oil seed production of the households of the study distinct at 5% significant level ($p < 0.003$). This means that as number of members of households become more and more, their production decision becomes less and less. This is because more of the household members are dependent on the household head's income. Hence, house hold with such large number of members outlays its income more on consumption expenditure rather than investing in the new technology and modern agricultural products of oil seed. Moreover it is found that the marginal effect for family size is -0.132. This indicates that increase of one household member decreases the household's decision to production at 13.2% marginally. The marginal effect of family size is -0.132.This indicates that with an addition of one household member, the probability being adopter of technology to produce oilseed decreases by 0.132 keeping other variables at their means.

Impacts of oil seed production on Socioeconomic status of households

Oil seed production has positive impacts on social and economic status of the households. This impacts can be measured through educational status of the family, the researcher was used *the ratio of children in schools and those who have attended regular schools to the total number of school aged children in the family*, expressed as percentage.

The ability of the household to feed the family was also seen in terms of the frequency of feeding the children and the adult. The percentage of farmers having corrugated iron sheet roofed houses, the percentage of farmers having separate kitchens other than their living rooms for cooking and the percentage of farmers having separate structure for livestock other than the living room were used to assess the impact of oil seed on the housing conditions of the farmers. The strategy used by the farmers to finance the household expenditures in times of food shortfalls and/ or crop failure was also another parameter to assess the impact on the food security of the farmers.

The result of table 4 shows that the mean percentage of children who had completed or were attending elementary schools at the time of the survey was found to be 58.5% and 41.5% for the producers and non-producers, respectively. The impact of Frequency of feeding adults for non- producers and producers is seen

with respect to the frequency of feeding children and the adult, and the strategies used by the household in times of food shortage. The results show that the producers of oil seed are less better than the non-producers in all these three criteria (*table 4*). This implies non-producers of oil seed producers other crops like teff, wheat, maize and other for food consumption rather than cash export oriented agricultural products (nug and sesame).

This study considered the roofing, wall, floor, the presence of separate kitchen, and the presence of separate structure for livestock as characteristics to assess the improvements in the housing conditions of the households. The results of the analysis concerning the material used for roofing the houses show that the proportion of the households having corrugated iron sheet roofed houses is 57.25% and 42.75% among the producers and the non- producers, respectively. The analysis of the distribution of farmers by cooking place also shows that the percentage of households using separate kitchens for cooking other than their living rooms is 46.65% and 53.35% for non-producers and producers' group, respectively.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The aim of this study is to analysis the impacts of oil seed production on socioeconomic of households in the study area. The production of oil seed has positive effect on the life of the producers by improving their incomes and consumption expenditures thereby improving their levels in food security and poverty lessening. From the descriptive part of this analysis it was identified out that the sample households of the study area, producers of the oil seed are found to be: younger, more educated than non-producers; have more accessibility to extension service, off-farm incomes and credit services. The result of the logit regression showed that on the farmers "decision of oil seed production shows the following main points. The variable, household heads" education level was found to be one of the significant factors that affected the decision of the farmers positively and significantly at 1% significant level. This indicates that the farm household head's education has great influence in enforcing his/her decision to produce the export oriented agricultural products.

The other strong significant factor which was identified in this study is the attitude of farm households towards the cost of inputs to farming, cost of improved seed and fertilizer in this case. That is households who consider cost of the inputs as fair are more producers while the reverse is true for the farmers thinking the cost as unfair or above its equilibrium market prices. Farm size and income from off-farm labour participation are the other two factors that enhanced the farm households "decision in the participation of the production methods. The effect of off farm income appears to be positive in empirical analysis of this study because farmers with additional income get more financial resources to invest more agricultural products. The empirical analysis in this research indicates the negative relationship between household size and decision to produce the oil seed at 5% significant level.

The positive and significant of credit on production decision indicates that the farmers obtain the necessary capital at the exact farming season. Furthermore, they get budgets for necessary requirements at the time they need to be safe from selling their produce when it is too cheap. This on the other hand will make the more profitable in their farming activities and leads them towards the production. Those farmers who think the cost as unfair, lack the ability to calculate the profit of farm production. They couldn't understand that as cost increases the price of their farm outputs increases simultaneously so that the profit rather than decreasing remains unchanged or rather increases.

RECOMMENDATIONS

Based on these findings it is recommended that the zonal and the woreda leaders extension agents farm and education experts, policy makers and other development oriented organizations have to plan in such a way that the farm households in the study area will obtain sufficient education, credit accessibilities and also have to train farmers to make them understand the benefits obtained from export oriented agricultural products. These bodies have also to arrange policy issues that improve farm labor participation of household members and also to arrange the ways in which farmers obtain means of income outside farming activities.

REFERENCES

Amare HS (2014). Production and Marketing Analysis of Sesame in Kafta Humera Woreda (Western Tigray). Mekelle, Tigray Agricultural Research Institute, Humera Agricultural Research Center.

Angie H, Masahiro M, Susumu F (2013). The Impact of Socio-Economic Characteristics on Coffee Farmers' Marketing Channel Choice: Evidence from Villa Rica, Peru.

Central Statistical Agency (CSA, 2012). Report of the 2012 Population and Housing Census. Federal Democratic Republic of Ethiopia, Addis Ababa.

CSA (2013). Agricultural Sample Survey 2012/13.Volume III. Report on area and production of major crops. Addis Ababa, Ethiopia.

Dawson PJ (2005). Agricultural exports and economic growth in less developed countries. *J. Agric. Econ.* 33:145-152.

ERCA (2015). Import and export database. *ASCCUDA++* software.

Gemechu, D. (2013). Export and economic growth in Ethiopia: An empirical Investigation. Full thesis, Addis Ababa University.

Getahun B (2013). Oilseed production and marketing situation in Ethiopia. Ministry of trade, Nov.14-15, Addis Ababa.

Horro Guduru Wollega Zone (2015). Agricultural Development Office and Woreda Finance and Economic Development Office.

Horro Guduru Wollega Zone (2017). Agricultural Development Office and Woreda Finance and Economic Development Office.

Kasper H, Holzmüller HH (2014). On a Theory of Export Performance: Personal and Organizational Determinants of Export Trade Activities Observed in Small and Medium-Sized Firms. *Management International Review, Vol. 31, Special Issue, S. 45-70.*

Kindie Aysheshim (2007). Sesame Market Chain Analysis: The Case of Metema Woreda, North Gondor Zone, Amhara National Regional State.

MoA (Ministery of Agriculture) (2013). Strategic Planning to Transform the Ethiopian Sesame Production and Export to Global Leader. Addis Ababa, Ethiopia.

Muhammad ZF (2010). Contribution of agricultural export to economic growth in Pakistan.*Pak. J. Commer. Soc. Sci, 6(1): 1-14.*

Noah Alemu (2018). Determinates of agricultural export trade: a case of sesame export from Ethiopia. Full thesis, Addis Ababa University.

Noula AG, Sama GL, Gwah MD (2014). Impact of agricultural export on economic growth of Cameroon. Case of Coffee, Banana and Cocoa. *Int. J. Bus. Manag. Rev.* 1(1):1-28.

Ousmanou N (2003). Exports and Economic Growth in Sub-Sahara Africa: Is There a Connection? Faculty of Economics & Management. University of Yaounde II P.O.Box 1063 Yaounde, Cameroon. *J. Agric.* 11(2), 001145-001152.

Seegeler CJP (2013). Oil Plants in Ethiopia, their Taxonomy and Agricultural Significance. Center for Agriculture Publishing and Documentation (PUDOC), Wageningen, the Netherlands.

Shahidur R, Chilot Y, Befikadu B, Solomon L (2010). Constraints and opportunities for enhancing exports, pulse profile in Ethiopia. *Working paper*, July 2010.

Tefera N (2016). Review of Sesame Value Chain in Ethiopia. Addis Ababa, Ethiopia.

Wijnands J, Biersteker J, Loo E (2009). Oilseeds Business Opportunities in Ethiopia. Public Private Partnership on oilseed.

Wijnands J, J. Biersteker, R Hiel (2015). Oilseeds business opportunities in Ethiopia, Ministry of Agriculture, Nature and Food Quality, the Netherlands.