

Original Research Article

Determinants of Rural and Peri-Urban Youth Participation in Small and Micro Agricultural Enterprises in Southern Ethiopia

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Abstract: Agriculture plays a vital role in terms of job creation for many Ethiopians and the growth and transformational plan (GTP) of the country also puts great importance of this sector to attain its midterm agenda. But many youths have low attitude to be employed in this sector, which aggravated youth unemployment rate in both rural and peri-urban areas. To reverse these problems, active youth participation in small and micro agricultural enterprises is among the necessary measures. Hence, this study identified factors affecting rural and peri-urban youth participation in small and micro agricultural enterprises. The study employed a simple random sampling procedure for data collection. A univariate probit model was used to identify determinants of their participation in available agri-enterprises. The descriptive statistics result indicated that most youths (88.46%) participated in reasons that they took agri-enterprises as job creation opportunities, but 76,92 percent were not succeeded. The probit model result shows that gender, education, institutional arrangement, the distance of credit-providing institutions, and awareness about the profitability of enterprises were significant variables affecting their participation in those enterprises. Therefore, any concerning body should give strong attention to those variables that affected their participation significantly and both positively and negatively.

Keywords: Agri-enterprises, Employment, Rural and Peri-urban Youth, Probit model.

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1. INTRODUCTION

The growth and transformation plan (GTP) agenda of Ethiopia puts great importance on small and micro enterprises for the mid-term agenda and concerted effort to promote and create more awareness among the youth of potential in the agricultural sector (Ermias *et al.*, 2017). About 90 and 69 percent of rural and urban youth were participated in agricultural economic activities currently, respectively in Ethiopia (Tadesse, 2020), but they were not effective as expected. In addition, the government encourages youth to start small businesses to reduce the rate of youth unemployment. Based on the approach of the government, young people who want to become entrepreneurs are encouraged to organize themselves in groups and associations to access microfinance. They are then trained by state-run federal micro and small enterprises development agency in business start-up and management skills. This agency also gives financial support to youth starting small and medium-sized enterprises in areas such as textiles, leathers, agriculture, trading, wood, and steel (MYSC, 2005).

But youth have low motivation to start micro and small agricultural enterprises, and some of them are not starting business enterprises as they planned. In addition, some of them are not effectively running their enterprises properly and understood this sector as the least choice for job creation and even they took it as a sector that doesn't make them happy (White, 2012). This problem is most common in the country general and study area in particular. But what were the reasons behind why they have low interest to participate were unclear. Thus, this study intended to study determinants of their participation in micro and small agricultural enterprises in selected areas of Southern Ethiopia. Hence, the study contributes to the improvement of youth employment opportunities in terms of agricultural enterprises.

2. RESEARCH METHODOLOGY

2.1. Description of the study area

Southern Nation Nationalities and Peoples Regional State located in the southern and southwestern parts of Ethiopia. Geographically it roughly lies 4°43" –

858 north latitude and 34⁰88" – 39⁰14" east longitude. It is bordered by Kenya in the south, South Sudan in the southwest, Gambella Region in the northwest, and surrounded by the Oromia region in the northwest, north, and east directions. The total area of the region is estimated to be 109,015Km², which is 10 percent of the country and the total population size is 20 million. The economy of the region is mainly driven by agriculture. The major type of crops that grows in the region is root crops and cereal crops such as maize, teff, wheat, barley and pulses, oilseeds, vegetables, spices, coffee and tea (PEFA, 2020). This study was conducted in six woredas by taking two woredas from each zone of Sidama, Gedeo, and Halaba.

2.2. Sampling and Sample Size Determination

Three zones were considered for this study. From each zone, two woredas were selected purposefully based on the high percentage of youth participation in micro and small agricultural enterprises compared to other woredas.

For sampling, the list of the youth population was accessed. The sample size was determined by the rule of thumb that every explanatory variable in the model to have at least 10 (ten) sample respondents. Accordingly, a total of 120 youths were selected using simple random sampling techniques. Further sample youth were selected by using Stat Trek’s random number generator procedure. Finally, out of the total sampled youths, 53 were participants and 67 were non-participants in agri-enterprises in the study area.

2.3. Method of Data Collection

Both primary and secondary data were collected. The primary data were collected from

selected youths in the study area through a structured questionnaire with face-to-face interviews. Before the collection of main data, informal surveys such as Focused Group Discussion (FGD) and Key Informant Interview (KII) were conducted to gather extra information. During the FGD and KII discussion, potential agri-enterprises, their associated challenges, and opportunities in the area were identified. Secondary data were collected from different offices like the woreda office of agriculture, and woreda youth and sports offices.

2.4. Method of data analysis

Both descriptive and econometric analysis methods were used. Descriptive statistics such as tables, graphs, charts, percentages, etc were used to analyze both qualitative and quantitative data. For econometric inference, the Probit model was used to analyze factors affecting youth's participation in agri-enterprises. The equation of probit model is $Y_i = f(x_i, \beta) + u_i$, $i = 1, 2, 3, \dots, N$, and X_i are all independent variables that were hypothesized to affect the probability of youth participation in those enterprises. These are gender, age, educational status, marital status, the distance of credit institution, distance product market, awareness of enterprises, institutional organization, and loan repayment durations were included in the model based on prior studies and researchers’ expectations, Y_i is binary and takes vale 1 if youth participated, and 0 otherwise, β are model parameters that were estimated.

3. RESULTS AND DISCUSSION

3.1. Demographic and Socioeconomic Characteristics of Respondents

Table 1: Descriptive statistics of variables by participation status: Dummy Variables

Dummy variables		Non-Participant		Participants		Total		Chi ² -test
		N=67	%	N=53	%	N	%	
Gender	Male	50	74.63	45	84.91	95	79.17	1.89
	Female	17	25.37	8	15.09	25	20.83	
Marital status	Married	49	73.13	12	22.64	61	50.83	30.19***
	Single	18	26.87	41	77.36	59	49.17	
Credit access	Have access	29	43.28	52	98.11	81	67.50	40.55***
	No access	38	56.72	1	1.89	39	32.50	
Market access	Access	33	49.25	29	54.72	62	51.67	0.35
	No access	34	50.75	24	45.28	58	49.33	
Awareness of enterprises	Aware	46	68.66	49	92.45	95	79.17	10.16***
	Not-awared	21	31.34	4	7.55	25	20.83	

Source: own survey 2020

Gender

Out of total samples 79.17 percent were male and 20.83 percent. Out of 67 non-participant youth in small and micro agricultural enterprises, 74.63 % were males and the remaining were females. Like way from participants, 84.91 % and 15.09 % were males and females respectively. The chi-square test reveals that there are no significant differences between sex classes of the participant and non-participant youth in small and

micro agricultural enterprises. This is might be due to agricultural works were performed by males in Ethiopia and males were quicker to decide to be an entrepreneur than females.

Marital Status

Out of total samples, 50.83 percent were married, and the remaining were not. Out of participant youths, 77.36 percent were single and the remaining

22.64 percent were married. Unlike participants, from non-participants, proportionally smaller amounts were single, which is 26.87 percent. The chi-square test reveals that there is a significant difference between both participants and non-participants. This is might be due to the long plan horizon of single compared to married respondents to base their future livelihood. This is because the process of participation in enterprises is long and too bureaucratic, due to this married were mostly not interested to pass these long steps because they already started their livelihood economic activities.

Credit Access

Out of 67 non-participants, 56.72 percent were responded that they have no access to credit and the remaining 43.28 said they have access. This might be due to awareness related to credit services in their area. Unlikely, only 1.89 percent of participants responded there is no access to credit, and the remaining 98.11 percent responded to the presence of access to credit. The chi-square test result also reveals that there is a significant difference between participants and non-participants in terms of credit access. This is might be due to the credit access base for any business and also for participation.

Market Access

Market for products is one of the important institutional tools that any demand for product bases. Out of total samples, 51.67 percent were responded that there is access to their product and the remaining said not. The chi-square test also shows there is no significant differences between participants and non-participants in terms of access to the product market.

Agri-Enterprises Awareness

Awareness about the profitability of these enterprises is one of the most important things that motivate youth to participate in them. Accordingly, out of total samples about 20.83 were not aware and the remaining were aware. Of the participants, about only 7.55 percent were not aware and the remaining 92.45 percent were aware of the availability and profitability of agri-enterprises. The chi-square test also shows that there is a significant difference between participant and non-participant youths in terms of awareness of enterprises. This might be due to awareness increases motivation for participation and the reverse is true. This variable is related to attitude because the more aware the high attitude they have. The reason for a greater percent of non-participants who were non-participant is that youth accept agricultural work as a low profession and they have low attitudes.

Table 2: Description of youth’s continuous variables

Continuous variables	Non-participant (N=67)		Participant (N=53)		t-test	Total mean
	Mean	St. Err	Mean	St. Err		
Age	26.13	0.38	22.91	0.39	5.92***	24.71
Education	8.12	0.19	9.83	0.13	7.0***	8.88
Distance of credit institution	5.51	0.09	4.16	0.08	10.86***	4.91
Pay back duration	4.74	0.85	4.19	0.13	3.76***	4.5

*** implies statistically significant at less than 1 percent significant level

Age

The mean age of youth was 24.71 years. The mean age for participants and non-participants were 22.91 and 26.13, respectively. The t-test result also reveals that there is a significant difference between participant and non-participant youth in agri-enterprises. This is might be due to at early age the youth have a long plan horizon and participate more than those youths that were older than them.

participation, the mean distance was 4.16 and 5.51 for participants and non-participants, respectively. The t-test result also reveals that there is a significant difference between the level of participation in agri-enterprises in terms of the distance of credit institutions. The is might be due to the credit system is too long and made them more costly. As a result, the nearest residents were more motivated to participate than those that were far away.

Education

The mean level of education for youth was ninth grade. The education level of participants and non-participant was 10th and 8th, respectively. The t-test result also reveals there are significant differences between participants and non-participants in terms of the level of grade attained. This is might be due to education provides information about future livelihood leadership like starting a small business.

Loan Payback Period

The loan system bases on its payback period and its duration depend on the types of enterprises. The descriptive result shows the mean period for small and micro enterprises were 4 year and five months. With respect to the level of participation, the average year of payback were 4.19 and 4.74 for participants and non-participants, respectively. The t-test result also shows that there is significant differences between participants and non-participants in terms of the payback period. This is might be due to the youth's attitude that the immediate back payment was not attainable at pre-specified years. The maximum repayment period for a

Distance of Credit Institution

The mean distance of credit institutions from youth residents was 4.91 km. Concerning the level of

loan is five years according to the national bank of Ethiopia 2016 for any micro institutions. This period is not consistent with this proclamation because the minimum and maximum loan repayment periods are 2 and 5 years respectively.

3.2. Distribution of Agri-enterprises Participation

Out of youths that were participated in agri-enterprises, more than half percent participated in fattening (52.83%), which were both oxen and shoat.

Following the fattening of oxen, 22.64 percent was pitty trading. The possible reason for more participation in fattening was an easiness to access credit and does not needs extra investment like land contract. The least enterprise was fishing and small-scale irrigation, these are might be due to the availability of small and medium level rivers in the area. The more participation of youth in petty trading was mainly due to their residential area which is per-urban and profitability of enterprises are mostly known in the short period.

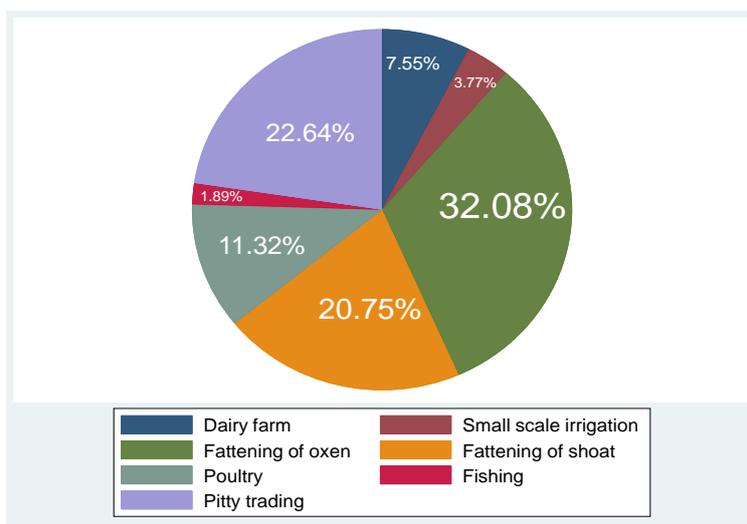


Figure 1: Distribution of youth participation in agri-enterprises

3.3. Role of Small and micro agricultural enterprises and youth performance

As indicated in the graph below, agriculture has a lion's share potential of job creation for youths. From participated youths in the enterprises, about 88.46% were responded that they were participated for the reason for job creation or to reduce their unemployment status. This result was consistent with studies which were concluded that agriculture has the lion's share in terms of job creation. But they also

responded that they did not become successful from the project. From the total participated youth's 76.92 percent were not succeeded and the remaining small and insignificant youth were succeeded by their participation. This was might be due to factors that hindered their participation like loan repayment periods. This finding is consistent with the result of White, 2012, which reported that they understand this sector as the least choice for job creation and even they took it as a sector that doesn't make happy.

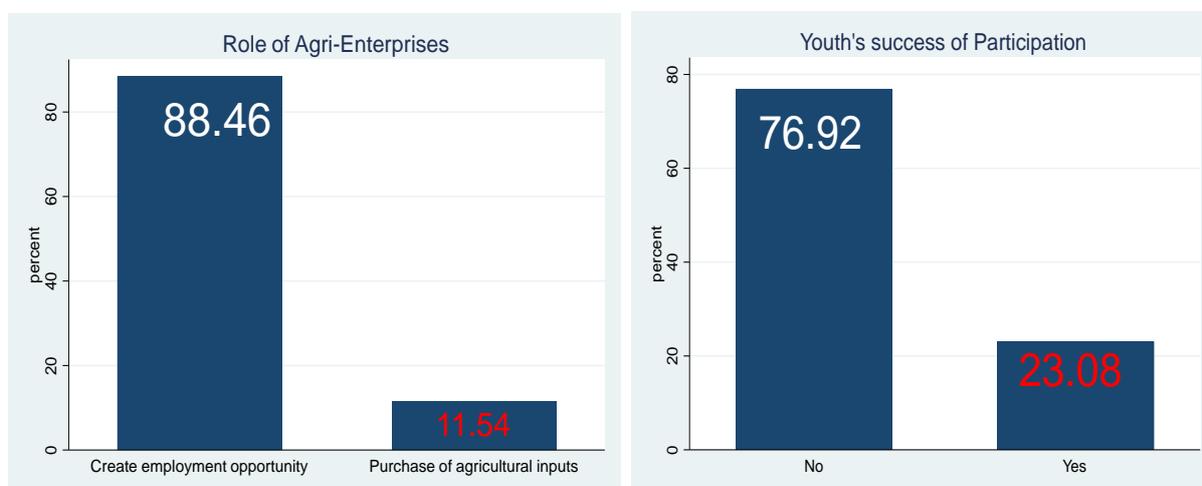


Figure 2: Performance of youth in agri-enterprises participation

3.4. Determinants of Participation on Agri-Enterprises.

Nine (9) explanatory variables were used in the probit model to identify determinants of participation based on the hypothesis made in chapter three. A chi-square test was used to measure the overall significance of probit model estimation. The result of the model shows that the probability of chi-square distribution (129.67) with less than the tabulated counterfactual is 0.000, which is less than 1% significance level. This implies the variables included in explaining participation in small and micro agri-enterprises fit the probit model at less than 1% probability level. Also, it means that the joint null hypothesis of coefficients of all

explanatory variables included in the model was zero should be rejected. This implies the data fits the model.

As indicated in the Table below, out of nine variables used in the model, five variables affecting youth participation in small and micro agri-enterprises were significant at less than 5% significant level. These are gender, education, weak institutional capacity, the distance of credit institutional, and awareness of agri-enterprises. From them, weak institutional capacity and distance of credit-providing institutions affect negatively and the remaining three variables affect their participation positively.

Table 3: Factors affecting rural and peri-urban youth participation in small and micro agri-enterprises

Variables	Coefficients	Standard Error	Marginal effect
Sex	2.075**	0.82	0.37
Age	-0.015	0.09	-0.005
Educational status	0.85**	0.30	0.26
Marital status	-0.33	0.64	-0.09
Institutional arrangement	-1.77**	0.71	-0.48
Distance of credit institution	-1.79**	0.53	-0.55
Product market distance	-0.37	0.21	-0.11
Loan payback period	-0.62	0.47	-0.19
Agri-enterprises awareness	2.69**	1.19	0.43
Constant	2.42	4.36	
Number of observations = 120			
LR chi2 (9)= 129.67, pr>chi2=0.000			
Log likelihood = -17.52			
Pseudo R ² = 0.79			

** implies variables were significant at less than 5 %.

Sex

This variable is found to have a positive effect on the participation of small and micro agricultural enterprises. The probit model output portrays that male youths were found to have more probability to participate in enterprises. This is mostly due to the reason that males were quicker to decide to be an entrepreneur than females. This study is consistent with (Bin, 2016) which stated that male were quicker to decide to be entrepreneurship than females because female needs social contribution for encouraging. As a result, the probability of male-headed households participating in these enterprises is more than 37 percent compared to non-participants.

Education Level

It was statistically significant at 1% significance level and influenced participation positively. As the education level increases by one grade, the probability of participating in enterprises 26 percent than non-participants. This is might be due to education provides awareness about possible means of profitable livelihood activities. This result is not consistent with Gemma *et al.*, 2013 as education level increases the probability to participate in agriculture is less likely, but it is consistent with the finding of Panny

and Dengele, 2017 and Adella *et al.*, 2020, which found educational level increases participation in agricultural crop production positively and significantly.

Institutional Arrangement

This variable is a dummy and takes 1 if the institutional organization or arrangement is weak, and 0 otherwise. This was based on the idea that a well-organized arrangement of an institution like having of agri-enterprises based specific skill and knowledge experts. This is due to both technical and material support before, after, and during participation in those enterprises are necessary. According to the result, this variable is significant at less than 5 percent significance level. This might be due to the organization's responsibility for youth under the control of youth and sports officers and they have inadequate skilled human power which directly supports them both ex-ante and export participation. For instance, if youth wants to participate in poultry production they lack skill-specific supporter from that office. I addition there is also no coordinated work with this office and other offices like agriculture. Most service provisions were scattered due to this weak institutional capacity and hindered their participation negatively. As a result, the weak capacity

of institutions reduces the probability of youth participation in enterprises by 48 percent.

Distance of Credit Institutions

The distance of credit institutions has an expected negative effect on youth participation in those enterprises. This variable was found to be significantly and negatively affect participation at less than 5 percent probability level. This implies long distance will make them susceptible for more cost and affects their motivation negatively. This is mainly due to the credit process needs a long time and increases the associated cost of transportation and likes. Its marginal effect value implies, on average when the distance increase by a kilometer, willing to participate in those enterprise decrease by 55 percent.

Awareness of enterprises (Attitude)

Youth awareness was found to positively and significantly affect participation in those enterprises, which is consistent with prior expectations. That is the probability of youth who have awareness about enterprise were willing to participate is much higher than those who were not. The marginal effect result reveals that the probability to participate is 43 percent more than those who were not aware of enterprises. This study is consistent with the study conducted by (Kehinde and Favour, 2016; Dennis 2020; Buyisile and Chiedza, 2019).

4. CONCLUSION AND RECOMMENDATIONS

4.1. CONCLUSION

The result revealed that from total samples, 44.17 percent participated and 55.83 were non-participants, and implies their low attitude towards agri-enterprises and 88.46 percent of youth accepted agri-enterprises as job creation options, but 76.92 percent were not succeeded and 23.08 were succeeded, this is due to factors that hindered their participation like loan repayment periods.

The probit model was employed to identify determinants of their participation in those enterprises. The result shows that sex, education, and awareness about enterprises affected their participation positively and significantly whereas, weak institutional capacity and distance of credit-providing institutions affected their participation negatively and significantly.

In addition, the loan payment period has a significant difference between participant and non-participant youths. Accordingly, the reason for non-participation is refusing the lower year of the loan and its deviation from the national bank amendment.

4.2. RECOMMENDATIONS

Depending on the finding of the study the following points will be considered by the concerned body:

Distance of credit institution affected their participation less likely. So the opening of credit institutions near to their resident area is important and reduces the cost of loan processing.

Weak institutional capacity affected their participation less likely. So, strengthening the organizing office in terms of specific agri-enterprise skilled experts is necessary.

Awareness affected their participation more likely. So, increasing their awareness for participation with means of arranging festivals, media, and demonstrations about these enterprises' profitability is important to increase their attitude. Relaxing the loan repayment period is important because it deviates from the national bank amendment of 2016.

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REFERENCES

- Adella, A. N., Aloyce, H., Mastewal, Y., & Victor, M. (2020). Assessment of factors influencing youth involvement in horticulture agribusiness in Tanzania: A case study of Njombe Region.
- Arias-Hidalgo, M., Villa-Cox, G., Griensven, A. V., Solorzano, G., Villa-Cox, R., Mynett, A. E., & Debels, P. (2013). A decision framework for wetland management in a river basin context: The "Abrás de Mantequilla" case study in the Guayas River Basin, Ecuador. *Environmental Science & Policy*, 34, 103-114.
- Bin, A. S. (2016). Compare the characteristics of male and female entrepreneurs as explorative study.
- Magagula, B., & Tsvakirai, C. Z. (2020). Youth perceptions of agriculture: Influence of cognitive processes on participation in agripreneurship. *Development in practice*, 30(2), 234-243.
- CSA. (2019). Ethiopian Central statistical data 2019.
- Dennis, K. M. (2020). Assessment of factors influencing youth participation in agri-business in Kericho county, Kenya.
- Emily, S., & Frew, B. (2016). Rural youth and employment in Ethiopia.
- Ermias, E., Mekdim, R., Ibrihim, W., Feiruz, Y., & Saba, Y. (2017). The role of micro and small scale enterprises in the Ethiopian economy, government intervention, and alternative agenda. A CGE analysis.

- Gemma A., Swaibu M., & Musa M. (2013). Youth Engagement In agriculture in Uganda: Challenges and Prospects.
- ILO. (2014). Global employment trends: Risk of a jobless recovery? Geneva: International Labour Organization.
- Kehinde, T. A., & Favour, E. (2016). Determinants of Participation in Youth-in-Agriculture Programme in Ondo State, Nigeria.
- Minster of Youth, Sport, and Culture, MYSC. (2005). Ethiopian Ministry of Youth, Sport, and Culture.
- National bank of Ethiopia. (2016). Licensing and supervision of the business of microfinance institutions. Limits on loans, Repayment period, and Provisioning Requirement Directives. No MFI/28/2016 (4th Replacement).
- Panny, M. Y., & Dengle, Y. G. (2017). Determinants of youth participation in Food crops Production in song local government area of Adamawa State, Nigeria.
- PEFA. (2020). Public expenditure and financial accountability (PEFA). Federal Democratic Republic of Ethiopia (Southern Nations, Nationalities, and Peoples Ethiopia).
- Tadesse M, (2020). Tadesse Moreda. Review on Factors Affecting Youth Participation in Agribusiness in Ethiopia. *Plant*. 8(4), 80-86. doi: 10.11648/j.plant.20200803.15
- White, B. (2012). Agriculture and the generation problem: rural youth, employment and the future of farming. *IDS Bulletin*, 43(6), 9-19.
- World Bank. (2020). Ethiopian Population report.

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