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Determinants of youth unemployment in Southern Ethiopia: Evidence from Duna District, Ethiopia

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Abstract

Purpose: Unemployment is a big problem both in developed and less developed countries. This study was aimed at investigating the determinants of youth unemployment in Duna district using cross-sectional survey data gathered in 2020. It is assumed to be a major macroeconomic problem in deriving economic growth and food security. Reducing youth unemployment is crucial to achieving sustainable economic development and alleviating poverty.

Research methodology: Multi-stage sampling methods were developed to select the sample from a given population. Through considering the availability of youth unemployed, six kebeles with a sample youth of 361 were selected. Primary and secondary sources of data were used. Descriptive analysis and binary logistic regression were employed for the data analysis.

Results: The results of binary logit regression revealed that youth unemployment was significantly affected by age, sex, educational status (secondary and higher education), cultivated land size, marital status, credit use, information use, family wealth, infrastructure, work experiences, and migration.

Limitations: This research is limited by the scope, men, and women young unemployed were not equally studied. Without inclusion, women in the studies may not ensure sustainable economic development and alleviate the problem of young unemployment and poverty.

Contribution: Ministry of youth, sports and culture, microfinance institutions, and other concerned bodies should give important attention to youth unemployment which is a major problem in achieving economic growth and alleviating poverty. Reduction in the level of youth unemployment would consequently improve youth income and which in turn improve living standards.

Keywords: *Adults, Youth unemployment, Binary Logit Model, Duna district*

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1. Introduction

For many developed and developing countries, youth unemployment is a macroeconomic problem that affects the living standards of people severely (Office, 2012); (Contini, 2010). Through youth unemployment loss of a job means a decline in living standards and psychological distress (Bokhari, Alothmany, & Magbool, 2012); (Rahman and Shanjabin, 2022); (Badrianto and Ekhsan, 2020). The world unemployment rate in 2016 was 13.1% which has created a largely competitive economic environment for youth unemployed people (Wibawa, Wilopo, & Abdillah, 2016). According to United Nations definitions, about 1.2 billion youth people aged lies between 15 and 24 years, which accounts for 18% of the total world population. Of these, about 87% of the youth population lives in developing

countries. In Ethiopia, 25% and 20% of the population are under the age of 15 and 24 years respectively (Kellow, Ayele, & Yusuf, 2010). A large ratio of youth dependence being 78% means large pressure in public service, high level of youth unemployment, low per capita income, domestic saving, and asset accumulation with the serious problem of youth poverty incidence. This also created a serious problem of natural resource degradation with far-reaching sustainable economic development. Entrepreneurship plays a crucial role in solving the problem of youth unemployment and has been acknowledged by researchers and policymakers, especially for youth unemployed graduates(Messabia, Kooli, & Marguerite, 2020). Entrepreneurship is crucial in reducing youth unemployment and poverty and is important to improve sustainable economic development (Abadli, Kooli, & Otmani, 2020). It is important to allocate productive resources from lower yield areas to higher yield and process of creating rewards for young people (Gatinet, 2008). It creates better means to boost agricultural productivity from given different production means. In Ethiopia majority of urban agriculture depends on labor productivity. The sector in Ethiopia is also poorly related to labor productivity and the labor market due to it faces various challenges in enhancing agricultural productivity and production (World Bank, 2007). Not only in urban agriculture the same situation is true in rural agriculture (Svongoro, Chigora and Katsande, 2021; Beckmann, 2017).

Knowledge is a very important factor in influencing youth employment conditions. More specifically, in Ethiopia employment conditions are highly related to youth knowledge to work behavior. The assessment in different research presented that in terms of knowledge youth employed was better than the counterpart. Improving workable information and knowledge is very crucial in enhancing youth work experiences and innovative work behavior (Zundi and Etikariena, 2020). Most of the youth people are unemployed in Ethiopia due to a lack of initial capital to start their own businesses and to create conducive work conditions. In Ethiopia, this financial system is used as a tool for work decisions and to assess good performance in a work condition (Olayinka, 2020). Improved financial analysis of statements is a vital tool for deriving better job creation for youth people. The market plays the most important role and the strategy of different products. Unemployed youth are more poorly affected by the market situation in Ethiopia than their counterpart (Linda, Tati, and Lili, 2022).

Long-term youth unemployment results in the erosion of healthy living standards of society through creating financial hardships, youth poverty, homelessness, crime, social isolation, loss of confidence, food insecurity, dependences, and self-esteem. The government lost both income and sale tax from youth unemployed people because those youth unemployed people purchase fewer goods and services, and pay lower income and sell taxes. This leads to less in the way of public services and low contribution to sustainable economic development (Maqbool, Mahmood, Sattar, & Bhalli, 2013). Therefore, studies conducted on youth unemployment Al-Abri and Kooli (2018); Kooli and Al Muftah (2020); Echebiri (2005); Guarcello and Rosati (2007); Amanuel (2016); Getnet (2014); Asalfew (2011); Dejene, Mansingh, and Warkaw (2016) their studies revealed that youth unemployment is influenced by regional variation, electricity power, age, gender, size of family, holding livestock, market information, and education status. According to their studies, sustainable economic growth is affected by youth unemployment. That means there is an opposite correlation between youth unemployment and sustainable economic growth in both developed and less developing countries. Hence, this research aim is investigated to assess the determinants of youth unemployment in Duna district, Southern Ethiopia.

According to the study of Haile (2008), unemployment refers to a person at specified age without work, currently available for work, between work and actively seeking work. When comparing less and more educated youth, less educated youth in Ethiopia is higher than the unemployment of more educated youth based on their skills and competencies to the demand of the labor market. Education is a key variable to reduce both youth unemployment and poverty through improving the skills, capacity, ability, and competencies of youth people between less and more educated (Kooli, 2017). In Ethiopia agriculture is dominated by the traditional agricultural system or backward technologies due to heavy depends on seasonal rainfall. The sector also depends on backward agricultural technology, and low productivity, and with a major labor force still, the sector is at a low production stage. This poor

performance of the agricultural sector in the rural area leads to rural-urban migration which in turn leads to urban youth unemployment. An increase in the labor force, internal migration, literacy rate, macroeconomic performance, low level of job creation, and aggregate demand are potential causes of youth unemployment in Ethiopia in general and particularly in the study area. Agriculture plays a vital role in diminishing youth unemployment and improving overall sustainable economic development. Enhanced its yield and improved youth people's income that can provide sustainable economic development, and alleviate poverty and food insecurity, which in turn improve youth people living standards.

According to different studies, the basic concepts of youth unemployment are revealed by many different theories. Different theories define youth unemployment depending on different concepts. The Keynesian theory of unemployment states that youth unemployment would have resulted from low demand for goods and services, sticky wages, and low yield. Marxian theory of unemployment argued that youth unemployment could be happened due to an unstable capital system and periodic crises. The most crucial theory of unemployment is the human capital theory of unemployment shows that youth unemployment is influenced by educational status, health status, life condition, and features of the population are key determinants of efficiency, effectiveness, ability, and capacity of the population (Kooli, 2017). Another macroeconomic level of unemployment theory job search theory of unemployment this type of unemployment is caused by a poor lack of information, poor data for job vacancies, and the wage of labor in the economy both in the external and internal job search. According to this model job search is the process of matching all workers with appropriate jobs. It is highly characterized by heterogeneous workers and jobs, and by imperfect market information between workers and jobs. External job search is high reveals how workers attempt to find a job at a new employer or firm. On the other hand, an internal job search deals with the issue of job searching within a firm. The turnover of labor in the economy is based on the skill of workers in the job-matching theory of unemployment. Youth unemployment is an important concept for policymakers, plan designers, and leaders in one country to make economic plans and designs. In general, many studies revealed several factors that determine youth unemployment, among them migration is the one that affects youth unemployment. The movements of youth people from rural to urban refer to achieving a better job, better infrastructure, better education, better skill match, better work experience, better electric power, and new opportunities seeking. Migration from rural to urban positively correlated with urban youth unemployment i.e. increases in urban youth unemployment. Another factor affecting youth unemployment is sex. In terms of employment opportunities, there are huge differences and gaps between women and men. Women are highly affected by rural-urban migration and youth unemployment. So, the youth unemployment problem is more highly correlated with women than men. Decrease in the level of household income, informal or less educated, weak investment, poor opportunities and access to the job, poor social network, and corruption are key determinants that influence youth unemployment positively. Entrepreneurship plays a vital role in the creation self – employment and the reduction of unemployment among young people. Reducing unemployed youth is crucial for achieving economic growth and development. Youth unemployment is a major macroeconomic problem to achieve sustainable economic development and poverty alleviation.

2. Literature review

Understanding the different factors underlying youth unemployment is crucial in terms of achieving sustainable economic development and alleviating youth poverty. Youth unemployment is one of the documented determinants of the country's economy which reduces access to living standards. There is a growing body of literature focusing on determinants of youth unemployment (Ahmed, 2011); (Faria, Cuestas, & Mourelle, 2010); (Echebiri, 2005); (Du Toit, 2003); (Gebeyaw, 2011); (Elder, 2010); (Amanuel, 2016); (Asalfew, 2011); (Dejene et al., 2016). Their studies used binary logit models and multivariate analysis models. For these two models in different studies, youth unemployment is a dependent variable and different demographic, socioeconomic, sociocultural, and institutional factors are independent variables(*Urban labor markets in Ethiopia: Challenges and prospects*, 2007). Their studies revealed that youth unemployment is significantly influenced by regional variation, migration, government support, social culture, infrastructure, electricity power, distance to town, distance to road,

access to water, skill matched, age, sex, educational status, size of family, holding land, holding livestock, access to information, training, marital status, residence, work experiences, access to credit and family wealth. In particular, numerous studies have been conducted focusing on the institutional aspects of youth unemployment. Parts of the literature have focused on especially youth unemployment (Alhawarin & Kreishan, 2010). Building on the existing studies, the study extends the analysis by considering a comprehensive set of sustainable economic development and alleviating youth poverty.

My estimation strategy was guided by the conceptual framework. Accordingly, youth unemployment is affected by several demographics, socio-economic, socio-cultural, and institutional factors. Factors like age, educational status, sex, marital status, residence, work experience, access to credit, family wealth, infrastructure, access to information, skill matched, cultivated land, migration, social culture, training, and government support are the key determinants that influence youth unemployment in the study area. Youth unemployment in turn reduces income growth and induces youth poverty in the study area. The conceptual framework showed that the most crucial factors and the inter-relationship among them are expected to affect youth unemployment.

3. Research methodology

3.1 Description of the study area

The study was employed in the Duna district, in the Hadiya zone located in Southern Ethiopia. The district is located at 7 ^{0} 37′19′′ N latitude and 37 ^{0} 37′ 14′′E longitude. The total population of the district is 148,667, of which 75,483 (50.77%) are male and 73,183 (49.23%) are female. Agroecological, the district is classified into three zones: Dega (80%), Weina Dega (14%), and kola (6%). The mean yearly rainfall ranges from 1510 mm to 1989 mm and has a mean annual temperature of 20^{0}c. The district receives low rains in March while high rains in July. The main production season is July and August during which all major cereal crops are grown. The largest part of this district falls within the southwestern part of the country. The elevation in the district varies from 2,969m asl to 1100m asl in the district. The total area of the Duna district is 43,104 ha (222.57 square km), of which 30,172.8 ha (70%) is potentially cultivable. The relatively high population density of 619.58 per square km coupled with the high proportion of the young population in the rural areas of the district exerts considerable pressure on farmland.

3.2 Types and Sources of Data

Descriptive statistics and econometric methods were employed for the data analysis. Primary and secondary data were used. Qualitative and quantitative primary data were employed. To get the required primary data different methodological approaches like questionnaires, key informant interviews, and focus group discussions were employed. To address the objectives of the study open and close-ended questionnaires were prepared. The primary data collection included men and women youth unemployed demographic, socioeconomic, sociocultural, and institutional characteristics. The study was supplemented by secondary data obtained from different published and unpublished documents, the ministry of youth, sports, and culture, administrative offices, relevant literature, websites, and other relevant organizations. Information obtained from secondary sources includes a list of men and women youth unemployed. Furthermore, interviews were held with key informants and the ministry of youth, sports, and culture Duna district.

3.3 Sampling Techniques

Multi-stage sampling methods were employed to determine the sample size. In the first stage: the Duna district was selected purposively due to high youth unemployment, and the availability of materials and infrastructure. In the second stage considering the availability of materials six kebeles as Bure, Kashira, Mande, Barkuncho, Kankicho, and Dabiyago with a total count of youth (3680) were selected (CSA, 2013). In the third stage (361) sample youth were selected from each stratum using proportionate selecting procedures. The sample youth respondents from six kebeles would select randomly by employing randomly selecting methods. The sample youth respondents were calculated by the specified formula: n = N/1 + N (e) ^{2} = 3680/1+3680(0.05)^{2} = 361 (Yamane, 1967). Population proportional size ns= (Nh/Ns) *n sampling ways were conducted to allocate the sample size of each selected kebeles.

Where: ns is the sample size in each stratum, Nh is the total population in each stratum, Ns is the total population of the sum of strata and n is the total sample size table 1:

Table 1. Sample frame and sample size

Kebeles	Sample Frame	ns= (Nh/Ns) *n	Sample size
Bure	625	(625/3680) *361	61
Kashira	600	(600/3680) *361	59
Mande	630	(630/3680) *361	62
Barkuncho	603	(603/3680) *361	59
Kankicho	610	(610/3680) *361	60
Dabiyago	612	(612/3680) *361	60
Total	3680	(3680/3680) *361	361

3.4 Method of Analysis

Data analysis has been done after all relevant data have been gathered from the youth unemployed respondents. It was carried out using descriptive statistics, inferential statistics, and a logistic regression model. Descriptive analysis was examining demographic characteristics and socio-economic profiles of the youth unemployed and was performed using indicators such as frequency, averages, percentages, tables, standard deviation, and maximum and minimum values, $\chi 2$ and t-test. Next, I applied econometric methods to provide a more appropriate and in-depth analysis. To compute the empirical relationship between the dependent variable and independent variables, the research applied the binary logistic regression model because the dependent variable was youth unemployed is a dummy /binary/ take the value 1 if youth unemployed and 0 otherwise. A logit model was conducted to evaluate the determinants of youth unemployment (Gujarati, 2004). In this study, the logit model is employed for its simplicity and ease of interpretation of the parameter estimates in probability terms. A logit regression model with logistic probability distribution is a simple calculation and the probability lies between 1 and 0. It represents a close approximation to the cumulative normal distribution, a mathematically easily used model, and is easier to work with. Therefore, the probability of youth being unemployed:

$Pi = Z\ (y = \frac{1}{xi}) = \beta_0 + \beta i\ xi$ .....(1)

Representation of youth unemployed

$Pi = F\ (Z) = \beta_0 + \sum_{i=1}^{n} \beta ixi = \frac{1}{1+e^{-(\beta_0 + \sum \beta ixi)}}$ .....(2)

Where Pi is the probability of i^{th} respondent employed, e is the base of natural logarithms (2.718), Xi is the explanatory variables, n is the number of explanatory variables, i = 1, 2, 3 …, n. and β_0 and βi are parameters to be estimated.

$1-Pi = \frac{1}{1+e^{-Zi}} = \frac{e^{z}}{1+e^{z}}$, where $zi = \beta_0 + \beta i\ xi$ .....(3)

If pi-is the probability of youth unemployed and (1-Pi) is the probability of youth employed.

Thus, $1- pi = \frac{1}{1+e^{zi}}$, then $\frac{Pi}{1-Pi} = \frac{1+e^{Zi}}{1+e^{Zi}} = e^{Zi}$ .....(4)

Taking natural logarithm

$(\frac{Pi}{1-Pi}) = (\frac{1+e^{Z}}{1+e^{z}}) = e^{(\beta_0 + \sum_{i=1}^{n} \beta ixi}$ .....(5)

Logit model

$Z = \ln (\frac{Pi}{1-Pi}) = \beta_0 + \beta 1\ x1 + \beta 2\ x2 + \ldots + \beta n\ Xn$ .....(6)

Logit model becomes

$Z = \beta_0 + \sum \beta ixi + ui$ .....(7)

$$z_i = \beta_0 + \sum_{i=1}^{n} (\beta_i X_i) + U_i$$

Where z_i= function of explanatory variables (X), β_0 = an intercept, $\beta_1, \beta_2, \beta_3 \ldots\ldots \beta_n$are the slope of the equation in the model, L_i = log of the odds ratio = z_i, X_i= vector of relevant characteristic or independent variables and U_i = disturbance term.

3.5 Description of variable

Logistic regression was developed to examine the determinants that influence youth unemployment in the study area. The dependent variable for the binary logistic model is the youth unemployed. The variable is binary/dummy/ if it takes 1 youth unemployed and 0 otherwise. The demographic, socio-economic, socio-cultural, and institutional variables such as age, educational status, sex, marital status, residence, work experiences, access to credit, family wealth, infrastructure, access to information, skill matched, holding land, migration, social culture, training, and government supports are explanatory variable that affects youth unemployment in the study area table 2.

Table 2. Definitions of explanatory variables and hypothesis

S. No	Variable name	Variable type	Variable description and its measurement	Expected sign
	Dependent variable			
	Youth unemployment	Binary	If 1 for unemployed and 0 otherwise	
	Explanatory variable			
1	Age	Continuous	In years	-
2	Educational status	Categorical	In years of education schooling	-
	If 1 for illiterate		In years of education schooling	
	If 2 for primary education		In years of education schooling	
	If 3 for secondary education		In years of education schooling	
	If 4 higher education		In years of education schooling	
3	Sex	Dummy	If 1 for men and 0 otherwise	-/+
4	Marital status	Dummy	If 1 for married and 0 otherwise	-/+
5	Residence	Dummy	If 1 for urban and 0 otherwise	-/+
6	Work experience	Dummy	If 1 for experience and 0 otherwise	-
7	Access to credit	Dummy	If 1 for yes and 0 otherwise	-
8	Family wealth	Dummy	If 1 for rich and 0 otherwise	-
9	Infrastructure	Dummy	If 1 for having infrastructure and 0 otherwise	-
10	Access to information	Dummy	If 1 for having information and 0 otherwise	-
11	Skill match	Dummy	If 1 for skill match and 0 otherwise	-
12	Land ownership	continuous	In hectare	-
13	Migration	Dummy	If 1 for migrants and 0 otherwise	+
14	Social culture	Dummy	If 1 for positively perceive self-employed youth and otherwise	+
15	Training	Dummy	If 1 for getting training and 0 otherwise	-
16	Government support	Dummy	If 1 for getting government support and 0 otherwise	-

Source: Author's hypothesis 2020

4. Results and discussions

4.1 Description of the study

Table 3 shows the summary statistics of the data collected from a randomly selected sample of youth employed and unemployed. Out of the total observations 361(100%), about 159(44.05%) of the youth were employed, which was relatively smaller than those who youth unemployed 202(55.95%) during the 2020 season.

Table 3. Sample youth based on employed and unemployed status

Sample youth	Frequency	Percent	Cumm. Percent
Youth employed	159	44.05	44.05
Youth unemployed	202	55.95	100
Total youth	361	100	

Source: Own survey 2020

In table 4, the study presents summary statistics (i.e., means and standard deviations) for the age and cultivated land of explanatory variables by youth people's employment status. Also reported is the t-test comparison of the means of these variables across the two categories of youth. Accordingly, most of the sampled youth were relatively about 22 years of age and 3.5621 standard deviations, support large land 2.96 hectares owned by employed youth on average and 0.6038 standard deviations and cultivate 2.50 hectares of land on average and 0.9064 standard deviations.

Table 4. The description of continuous variables

Variables	Total youth	Youth employed	Youth unemployed	Mean diff.	T- value
	Mean (Std.dev)	Mean (Std.dev)	Mean (Std.dev)		
Age	22.2734	24.3452	21.9521	-2.3931	4.6425**
	(3.5621)	(4.6736)	(2.5427)		
Lad	2.5024	2.9590	2.1250	-0.8340	3.2541***
	(0.9064)	(0.6038)	(0.9053)		

Source: Computed from own survey data 2020. *t-values* for continuous explanatory variables; *** & ** significant levels at 1% and 5% respectively

Moreover, important differences were observed among youth in terms of youth employed and unemployed. According to the response of the respondents employed youth had better work experiences, residences, access to information, and infrastructure than those unemployed youth, suggesting that migration was positively correlated with youth unemployment. Youth unemployment is significantly influenced by education, sex, marital status, access to information, residence, access to credit, family wealth, infrastructure, work experiences, and migration. The two groups also significantly differed in terms of access to institutional services where employed youth had better access to credit services on average than their unemployed youth counterparts. Accordingly, employed youth had better education (in the category of higher education) than those unemployed youth, suggesting that education (in the category of higher education) might be positively correlated with employed youth's decision to work. However, there were employed youth who had better in terms of family wealth than those unemployed youth and lastly, there was a large number of males and high marital status on the side of employed youth than those of unemployed youth in the study area.

Table 5. The description of categorical and dummy variables

Variables	Response	Youth employed		Youth unemployed		$\chi 2$- value
		Frequency	Percent	Frequency	Percent	
Edu	1 illiterate	15	9.43	10	4.95	
	2 primary education	20	12.58	37	18.32	
	3 secondary education	45	28.30	52	25.74	

	4 higher education	79	49.69	103	50.99	2.627***
Sex	Male	95	60	118	58	5.543***
	Female	64	40	84	42	
Mts	Married	74	47	93	46	
	Unmarried	85	53	109	54	3.546***
Acc	No	90	57	121	59.9	7.730***
	Yes	69	43	81	40.1	
Rsd	Urban	44	34	57	28	
	Rural	105	66	145	72	2.054**
Aci	No	99	62.26	125	62	3.906***
	Yes	60	37.74	77	38	
Fwl	No	113	71	130	64	2.465***
	Yes	46	29	72	36	
Inf	No	109	68.55	140	69.3	3.523***
	Yes	50	31.45	62	30.7	
Wxp	No	92	58	140	69	2.867**
	Yes	67	42	62	31	
Soc	No	70	44	90	45	
	Yes	89	66	112	55	
Ski	Skill unmatching	100	62.89	142	70.3	
	Skill matching	59	37.11	60	29.7	
Mig	Migrants	97	61	115	56.93	2.132***
	Non migrants	62	39	87	43.07	
Tra	No getting training	89	55.97	112	55.44	
	Getting training	70	44.03	90	44.56	
Gos	No government support	85	53.6	107	52.97	
	Government support	74	46.4	95	47.03	

Source: Computed from own survey data 2020 Pearson's $\chi 2$ values for categorical/dummy explanatory variables. *** & ** significant level at 1% and 5% respectively

According to descriptive statistics out of sixteen explanatory variables, twelve variables such as age, sex, education (higher education), marital status, cultivated land, credit use, residence, information use, family wealth, infrastructure, work experience, and migration were important factors that influence youth unemployment. Among significant variables education (higher education), cultivated land, sex, marital status, credit use, information use, family wealth, infrastructure, and migration influence youth unemployment at a 1% probability significance level whereas age, residence, and work experience were influences at 5% probability significance level. Descriptive results revealed that among sixteen explanatory variables four variables such as social culture, skill match, training, and government support are not important factors that influence youth unemployment in the study area.

4.2 Econometric results

In binary logistic regression, the multicollinearity problem of continuous variables was tested by using the variance inflation factor, the result of the test was less than 10 and the heteroscedasticity problem was corrected by using Breusch- Pagan test robust standard errors. So, for binary logistic regression, there is no multicollinearity and heteroscedasticity problem in the study. Model estimates for the determinants of youth are presented in table 6. The goodness fit concerning the predictive efficiency was high with 310 (85.87%) of the 361 youth respondents included in the model perfectly predicted.

Table 6. Estimates of the determinant's youth (n = 361)

Variables	Coff.	Odds ratio	Robust Std errs	Z	P-Values	Marginal effect
Age	-0.1432**	0.8763	0.2509	-0.23	0.045	0.0239
Sex	-0.4235***	3.2585	0.6753	1.26	0.005	0.0234

Edu	(1)	-0.2564	4.1894	0.3254	-0.98	0.546	0.0943
	(2)	-0.2623	3.7856	0.2394	-0.97	0.243	0.0213
	(3)	-1.1035**	2.4371	0.4862	-1.52	0.025	0.0862
	(4)	-1.3986**	2.8679	0.5232	-1.05	0.035	0.0930
Lad		-0.5422***	3.5963	0.6849	2.40	0.004	0.0981
Mts		-2.8541**	5.6076	0.8631	1.89	0.037	0.0821
Acc		-2.7284***	4.2430	0.6240	1.16	0.002	0.2521
Rsd		-0.5468	2.1529	0.1324	0.58	0.637	0.1720
Aci		-1.5849**	2.9550	0.6063	0.92	0.025	0.2790
Fwl		-1.1001***	3.9054	0.8023	1.58	0.001	0.0754
Ifr		-0.3728***	1.6640	0.8047	3.02	0.003	0.2990
Wxp		-2.8437**	4.7963	0.5003	1.36	0.040	0.0235
Soc		0.2452	0.5964	0.8452	0.54	0.794	0.0921
Ski		-0.8792	0.7685	0.9684	0.54	0.643	0.0213
Mig		0.3645***	0.4328	0.7842	0.68	0.007	0.07546
Tra		-0.4237	1.3214	0.6208	1.02	0.451	0.0129
Gos		-0.8967	0.3961	0.9205	0.45	0.742	0.0291
Cons.		-1.5221***	0.0014	1.2133	-1.24	0.000	

Own survey 2020; LR chi^2 (16) = 305.25; Prob>chi^2=0.000; Pseudo R^2= 0.375; Log likelihood = -85.692;
***, ** & * significant level at 1%, 5% and 10% respectively

Where Age is age, Sex is sex, Edu is an educational status which is categorical 1 for illiterate, 2 for primary education, 3 for secondary education, and 4 for higher education, Lad is cultivated land use, Mts is marital status, Acc is credit use, Rsd is residence, Aci is information use, Fwl is family wealth, Ifr is infrastructure, Wxp is work experiences, Soc is social culture, Ski is skill match, Mig is migration, Tra is training and Gos is government support is important explanatory variables for binary regression. For the binary logistic regression, youth unemployment is the dependent variable in the study area.

Accordingly, eleven of the sixteen variables included age, sex, educational status (secondary and higher education), cultivated land size, marital status, credit use, use of information, family wealth, infrastructure, work experiences, and migration were found to have a significant association with the statistical probability level of youth unemployment. This finding is similar to the findings of Godfrey (2003); Nganwa, Assefa, and Mbaka (2015); (ILO, 2004); Amanuel (2016); Getnet (2014). According to their studies, youth unemployment was significantly influenced by sex, age, educational status, cultivated land size, marital status, credit use, use of information, family wealth, infrastructure, and work experiences. Out of all statistically significant variables like sex, cultivated land, credit use, family wealth, infrastructure, and migration were influencing unemployed youth at 1% probability significance level for binary regression whereas education (secondary and higher education), marital status, information use, and work experiences were influence at 5% probability significance level. For binary logistic regression age, sex, education status (secondary and higher education), cultivated land size, marital status, credit use, use of information, family wealth, infrastructure, and work experiences were negatively correlated with youth unemployment. On the other hand, from all statistically significant variables for binary regression, only migration was positively correlated with unemployment in the study area. Specifically, age was found to have a strong negative association with youth unemployment. Keeping other factors fixed, each extra year of the youth age is expected to result in a 2.4% reduction in the probability of youth unemployed, a statistically significant association ($P < 0.01$). This finding is similar to the finding of Nganwa et al. (2015). His study revealed that there is a negative correlation between age and youth unemployment. Put differently, youth whose age is on average 10 years older are expected to be 24% less likely to youth unemployed, which is quite significant.

On the other hand, factors such as age, sex, education status (secondary and higher education), cultivated land size, marital status, credit use, access to information, family wealth, infrastructure, and work experiences had all significant negative associations with youth unemployment, with marginal

effects ranging between 2.34% to 29.90% on average (citrus Paribus). More specifically, an extra unit of youth migration, education (secondary and higher education), size of cultivated land, marital status, credit use, access to information, family wealth, and infrastructure were respectively associated with a 7.54%, (8.62% and 9.30%), 9.81%, 8.21%, 25.21%, 27.90%, 7.54%, and 29.90 higher probabilities of youth unemployed on average, all else remaining the same. Moreover, youth with access to credit services were found to be 25.21% higher probability of youth unemployed respectively compared to those without access to these services. The results from the econometric analysis presented in table 6 were qualitatively similar to those of the results of the descriptive statistics presented in table 4 and table 5 except, the only difference between descriptive analysis and binary logistic regression analysis was education at the category of secondary education was significant only in binary logistic regression analysis in table 6 and residence was significant only in descriptive analysis in table 5. According to the descriptive and econometric analysis, significant explanatory variables influence youth unemployment, which in turn reduces sustainable economic development and induces poverty. The better decision to achieve sustainable economic development is to alleviate youth unemployment towards full employment, which is a key indicator of economic development. A small micro-enterprise is an important solution to reduce youth unemployment in the study area. It provides job opportunities for all youth people and income-generating sources in the study area.

5. Conclusion

Unemployment is a big macroeconomic problem both in developed and less developed countries. This study was aimed at investigating the determinants of youth unemployed in the study area by using cross-sectional survey data 361 in the 2020 time period. Among macroeconomic problems of unemployment, adults are less vulnerable to unemployment than young in the study area. Reducing youth unemployment is crucial to achieving sustainable economic development, and alleviating the problem of youth poverty and food insecurity. Primary and secondary sources of information through structured questionnaires, key informant interviews, and focus group discussions were used. Descriptive analysis and econometric methods such as binary logistic regression were employed for the data analysis. Moreover, for binary logistic regression, key youth characteristics such as age, sex, education status (secondary and higher education), cultivated land size, marital status, credit use, use of information, family wealth, infrastructure, work experiences, and migration were found to be important factors underlying youth unemployment. More specifically, unemployed youth were found to be younger, less educated, cultivated lower farmlands, lower utilization of information, and lower family wealth than their employed youth counterparts. The use of credit was also an important driver and contributor to youth employment. However, the ministry of youth, sport, and culture, microfinance institutions, and other concerned bodies should increase credit facilities and job opportunities for those unemployed youth people who do not have initial capital is crucial to alleviate the problem of youth unemployment and poverty, and contribute a lot to sustainable economic development in the study area.

5.1 Policy Recommendations

Given these findings, several implications could emerge from my analysis upon which important suggestions could be made as key recommendations. First, even though the improving youth employment status is relatively low in the Duna district. This improvement could generally enhance youth income which in turn increases the living standards of the young. Consequently, the increased youth employment status could be considered one important way to improve the livelihoods of youth in the area. Secondly, a better understanding of the factors influencing youth choice of employment is quite imperative. More importantly, my findings of the key factors such as sex, education status (secondary and higher education), cultivated land size, credit use, access to information, family wealth, infrastructure, and work experiences underlying youth unemployed could serve as an important input for designing policies and strategies aimed at enhancing employment status in the study area. For instance, family wealth has a strong relationship with youth employment as it enhances youth income and savings. Therefore, due emphasis has to be given to strengthening the family wealth of youth at different levels, especially for both rural and urban youth. Infrastructure is a crucial activity in reducing youth unemployment which facilitates youth employment opportunities and through which induces youth income and saving. Hence, all concerned bodies should give attention to alleviating the youth

unemployment problem to enhance youth employment status. Therefore, the expansion of youth employment status should result in sustainable economic development, and youth poverty and unemployment alleviation.

5.2 Limitations and Important Suggestions

The empirical study was carried out on youth unemployed by using both youths employed who are working in all types of economies and unemployed in the study area, but it did not include youths of men and women equally in the study area. Because of this and the limited scope of the study may not ensure that the indicated results for youth unemployment in Ethiopia at the regional and national level. Further study on the topic can include youth participation of men and women equally in all areas of economic activities and widen the scope of the study. Another limitation derived from the interaction of knowledge, strategy, and promoting study for employed youth. This study concluded that without a high-power distance between Ethiopian regulators, the ministry of youth, sport, and culture, and microfinance institutions important solution could not be achieved. This study does not consider the level of microfinance institutions for credit services in each region of Ethiopia and job opportunities for unemployed youth. Therefore, the further study considers extending this study by expanding the scope of the study area and conducting comparisons among different countries. Finally, this study cheeks the implementation action of young men and women's equal participation in all economic activities.

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