# The Determinants Of Poverity Under Multidimensional Approach In Urban Areas Of Western Ethiopia

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#### Abstract

Human beings need to not to deprive socially, politically and economically. Thus, a minimum of living standard, wealth, empowerment, health and education are important means. The study tried to determine the multidimensional poverty index (MPI) and its determinants. The analysis was based the cross-sectional data obtained from 394 randomly sampled household living in the town in 2020. The result on the depth of multidimensional poverty index at k=5 report that 53% households in town are poor whereas the remaining 47 % of were found non-poor. The Logistic regression results show that the households are more likely to be multidimensional poor for lack of job opportunities, poor skill on self- employment, household size, dependency ratio, rural urban migration, poor self-employment skills, dependent attitude, poor family planning, lack of family solidarity, sustained illness, political instability, cost of living and drug addiction. On the other hand; household age, education, annual income, saving, rich family back ground, homeownership and household labour are the indicators found determining the chance of being multidimensional non-poor. Consequently, promoting education, hardworking, proper family planning, family solidarity, entrepreneurship, health insurance and saving to the households, and enhancing peace and stability in the region to promote investment and to reduce rural urban migration are important policy suggestions drawn.

Key words: determinants, Ethiopia, multidimensional, poverty

# **1. INTRODUCTION**

Poverty as the inability of a man to afford for basic necessities of life; the deprived living of the man on the income or consumption below the minimum threshold remain the great challenge to sustained development goals of world nations.

More than 44 million of the extremely poor lived in Latin America and the Caribbean and Eastern Europe and central Asia combined (World Bank, 2015).The rate of poverty rate in Africa is high and in sub-Saharan Africa is still huge while many millions people in Ethiopia live under poverty of which majority reside in urban areas. World Bank report (2015) showed increasing population accompanied with huge rural-urban migration creates strain on the labour market and urban social services provision thus ultimately led to wide spread poverty and deprivation in Ethiopia. As of World Bank (2016) 80 percent of Ethiopians live in rural areas of which 30 million are poor. This indicates that the remaining twenty percent of Ethiopians live in urban areas and still many of them are still poor. And the paradox to this is that the Ethiopia is endowed with abundant gifts of nature which could lead to rapid economic growth and reduce poverty if used effectively. For instance, for the tripled cereal production in the country for the periods 2000 and 2014, the decline in poverty by 23.8 percent was recorded (UN-OHRLLS, 2016)

Ethiopia has achieved strong poverty reduction between 2004 and 2015,with the share of the po pulation below the national poverty line droppin g from 39 percent in 2004 to 24 percent in 2015( the last available data).Poverty reduction was es pecially fast in urban areas,reflecting the large ur ban Investments linked to the urban renewal initi ative and overall fast economic growth.However , the poverty rate based on the international pove rty line of 1.9 USD per day per person was

predicted to be 27 percent in 2019 and is expected to remain about the same in 2020 or 2021.Based on this 35 percent of the rural population and 13 of the urban population are found in 2019(World Bank,2020).

Poverty is multi-dimensional phenomenon that extends beyond the economic arena to encompass spatially varying factor such as the in ability to participate in social and political life and the access to it. Poverty at country level in Ethiopia and for cases of rural households has been widely studied (see for example; Mekonin, 2000; Desawi, Abate, & John, 2021). For case of urban poverty many economists have been focused on major cities and towns of Ethiopia such as Nazareth, Bahir Dar, Mekele, and Awassa including the capital. However, the topic in some other cities such as Dambi Dollo town remains not surveyed yet. Therefore, this study attempted to answer: (1) what is the extent of multidimensional poverty in the study area? and (2) what are the major socio-economic and political factors causing the urban household to multidimensional poverty?

# **1.1 Specific Objectives of the study**

- ✓ To measure the incidence of multidimensional poverty of households in Dambi Dollo Town.
- ✓ To determine the marginal effects of multidimensional poverty determinants in Dambi Dollo town.

# 2. METHODOLOGY OF THE ANALYSIS

## 2.1 Multidimensional Poverty Indicators

The recently developed Sustainable Development Goals (UN General Assembly, 2015) have provided strong grounds for the incorporation of the multidimensional poverty Accordingly, indicators. the survey has identified five poverty dimensions comprised of 21 indicators along with their deprivation cutoff points. The five dimensions of multidimensional poverty are living standard. wealth. empowerment, health and education. Following Alkire and Santos (2013), equal weighting was adopted to compute the household's multidimensional deprivation score as the case Development Index in Human (HDI) convention. Thus, the weight assigned to each dimension is 1/5, and each indicator within a dimension is also equally weighted and deprivation indicator cut-off for each is created using the concept of dummy variable; that is, by assigning one for the desired attribute and zero for otherwise

Indicators identified :(1) access to clean and safe drinking water, (2) access to improved sanitation, (3) energy for cooking, and (4) access to electricity, measure the standard of living aspect of multidimensional poverty. А household was considered deprived in respect to water access if it had been either unable to own clean pipe water and or unable to buy safe drinking water from its neighbors daily; deprived in respect to electricity if the electric city connection is not functional usually and considered deprived in respect to cooking if it did not use cooking stoves and electric baking pan; deprived in respect to sanitation if it used a unimproved sanitation facilities (unclean toilet, unclean bathroom, etc.)

The wealth status of households was captured by ownership urban house, consumer durables and investment goods such as Bajaj, cars, automobiles, grinding mill, shop, hotel, etc. A household was identified deprived in if it did not own at least one investment capital good and or house.

Education poverty is captured by school enrolment and years of schooling. A household was considered deprived in respect to years of schooling if no household member had completed five years of schooling, while a household with at least one school-aged child (6 to 14) not enrolled in school was considered deprived in respect to school enrolment. According to the World Bank(2020), the compulsory school age for children in Ethiopia was 6-14 years.

Health care access and health status (functioning) measure the health dimension of poverty. A household was considered as deprived in respect to health care access if it did not afford for health care facilities in the village. A household was considered as deprived in respect to health functioning if health becomes a limiting factor for any member of the household to pursue regular household activities due to sustained sickness in the last five months. Finally, the empowerment dimension of poverty was measured by the household's Membership in local cooperatives, decision-making on household budget and its saving. A household deprived in respect to identified was Membership in local cooperative if it did not have any household member that was part of any local cooperative in the society. A household was considered deprived in regard to decision making if all members of the household, particularly both the husband and wife, did neither participate to generate income equally nor make democratic decision on the allocation of the household earnings; and deprived in regard to saving if all members of the household, particularly both the husband and wife, lacks at least one saving account in financial units such as banks.

# 2.2 Model Specification

All households are assigned a deprivation score in all selected multidimensional poverty indicators. Following Alkire et al. (2015), censoring process is used for the deprivation score of households. That is, a deprivation status score of one is assigned if the household is deprived in any indicator and a status score of zero is given otherwise. Finally, the weighted deprivation score (Si) for each household was calculated adopting the simplified equation:

si = w1i1 + w2i2 + w3i3 + w4i4 + w5i5 + w6i6 + w7i7 + w8i8 + w9i9 + w10i10 + w11i11 + w12i12 + w13i13 + w14i14 + w15i15...(1)

According to Alkire and Foster (2008), if the deprivation score (Si) of a household computed using equation one is equal to or greater than the multidimensional poverty cut-off (k)-that is., 33.33% of the weighted indicators; the h

ousehold is considered Multidimensionality poor. This is expressed by a binary variable (Xi) that takes the value of 1 if the household is identified as multidimensional poor and 0 if is multidimensional non-poor:

$Xi \equiv \{1 \text{ if the } $	household is	<i>multi</i> dim	ensional	$poor(si \ge k)$	 	(2)
0 <i>othe</i>	erwise					

Therefore, after categorizing households as multidimensionality poor and non-poor using

Xi, binary logistic regression was employed to identify the major determinant factors of

multidimensional urban poverty in the study area. There is hardly difference between the logit and probit models in inference (Gujarati, 2004). Nonetheless, this study preferred logistic model for its simplicity in interpretation. Thus, following Gujarati (2004), the cumulative (logistic) distribution function is given as:

$$Pi = E(X = 1 | Yi = \frac{1}{\frac{(\beta o + \beta i Yi)}{1 + e}}....(3)$$

Where Pi is the probability that each household is multidimensional poor given Yi; Yi is the i<sup>th</sup> explanatory variable; e is the base of natural logarithm(2.71=e); Bo is constant of the logistic regression equation; ßi are unknown regression estimates interpreted as marginal changes of the logit due to a one unit change in Yi . For simplicity, we can write equation 3 as:

$$Pi = \frac{e^{Zi}}{1 + e^{Zi}}, where Zi \equiv Bo + \beta i Yi....(4)$$

Thus, the probability that a given household is multidimensional non-poor can be set as:

$$1 - pi = \frac{e^{zi}}{1 + e^{zi}}....(5)$$

And the odds ratio in favour of being multidimensional poor is given as:

Equation (6) can be rewritten as below after taking the natural logarithm:

$$Li \equiv \ln\left(\frac{Pi}{1-Pi}\right) \equiv Zi \equiv \beta o + \sum_{i=1}^{n} \beta i Yi + \sigma i....(7)$$

Where, Li is the logarithm of the odd ratio, which is assumed linear for both variables and parameters; Zi is a function of explanatory varia bles; pi is the probability of being multidimensio nal poor; 1-pi is the probability of being multidimensional non-poor; and  $\sigma i$  denotes the disturbance term. Therefore, the probability of households being multidimensional poor depends on a set of indicators denoted as Yi. Finally, marginal effects after the logit model were estimated to measure the change in the probability of Xi=1 as a result of a unit change in a particular independent variable (Yi). Variables included in the estimation were selected considering previous studies on poverty determinants in developing countries (including Ethiopia) and are described in Table1 as follows:

#### Table 1: Determinants of Households' Multidimensional Poverty Status

Variable	Description	Type and measurement

Explained variable		
status of	Households' experience of	dummy: the deprivation score is $\geq$
multidimensional	multidimensional deprivation status. The	33.33, if the household is
poverty(mdps)	value of the adjusted headcount ratio (MPI)	multidimensional poor and
	for a poverty cutoff $k \ge 33.33\%$ of the	L
	weighted indicators: i.e., k=5 was taken as	0; otherwise.
	the poverty threshold to categorize	
	households as poor or non-poor	
Explanatory variable		
age(a)	the actual age of the household at birth	continuous and given in years
education(ed)	schooling years attended by household	continuous and given in years
	head	
household size(hs)	number of individuals living in the	continuous and given in number
	common nome	
dependency	number of dependents in a household	Fraction
ratio(dr)	(those aged between 0 to 14, and those	
	aged 65 and older) divided by the number	
	of working-age groups (15 to 64)	
annual income(ai)	yearly income of household after tax	continuous and given in birr
saving(s)	yearly household income after	continuous and given in birr
	consumption	
household labour(hl)	the number of economically active	continuous and given in number
	members in the household	
poor self-	whether the household head has owned	dummy equals 1 if no and zero if
employment	profitable private business or not	ves
skill(nses)		
Skiii(poeb)		
dependent	whether the household head has joined	dummy, equals 1 if yes and zero
attitude(da)	aid programs(formal or informal) for the	otherwise
	survival of the family or not	
C 1		
poor family	whether the household size is planned or	aummy, equals 1 if no and zero if
planning(ptp)	not	yes
lack of family	whether the family members of the	dummy, equals 1 if no and zero if
solidarity(ls)	household have solidarity to common	yes

	goals	
home ownership(ho)	whether the household owns own house instead of living in rented house	dummy, equals 1 if yes and zero otherwise
rich family back ground(rfb)	whether the household head gets huge fixed asset transfer from his/her parent for the household or not	dummy, equals 1 if yes and zero otherwise
sustained illness(sil)	whether there exist at least one economically inactive member of household because of prolonged sickness or not	dummy, equals 1 if yes and zero otherwise
rural urban migration(rum)	whether the household is initially urban resident or recently migrated from country	dummy, equals 1 if migrated and zero otherwise
political instability(pl)	whether the household is directly affected by the political conflicts and instabilities or not	dummy, equals 1 if yes and zero otherwise
cost of living(cl)	whether the household head is fixed income earner not(this is to capture the impact of inflation)	equals one if yes; and zero otherwise
drug addiction(da)	whether the household head is addicted to alcoholic drinks or not	equals one if yes; and zero otherwise

Source: Developed by Author following contemporary Literatures (2020)

# 3. RESULTS AND DISCUSSIONS

# 3.1The level of Multidimensional poverty

The findings revealed that a higher proportion of households (53%) were classified as multidimensional while 47% poor, of households were found to be multidimensional non-poor as to the index adopted. This displays that the greater proportion of surveyed households is suffering from severe multidimensional poverty as they are deprived of basic human services and requirements. They suffer multiple deprivations in living standard, wealth, education, health, and empowerment dimensions wellbeing. of Such severe deprivation in these dimensions led to functioning failure and low quality of life, which in turn leads to higher incidence and intensity of multidimensional deprivation of poor households. Although studies prior on multidimensional poverty in the town are not find, the finding is largely higher than the recent official poverty report of Ethiopia; which 23.5% (Planning and was in 2015/16 Development Commission, 2018).



#### Source: Stata15 output for the survey data (2020)

#### 3.2 Testing the empirical model

In contemporary research methodology; diagnostic testing of the empirical model is a prior and crucial means to maintain the underlying assumptions and keep validity. The empirical model of the study is Logit model, a binary outcome model for which few diagonostic tests are applicable unlike the Ordinary least square regression which requires testing of all the five OLS assumptions.

First, low correlation among the independent variables is required(Bewick, Cheek, & Ball,

2005). This achieved (1) by computing and testing the coefficient of contingency for discrete variables; and (2) Variance inflation factor test of multicollinearity for continuous variables. As indicated by Chatterjee and Hadi (2012) none of the Variance Inflation Factors (VIFs) should exceed 10 for the regression coefficients are well predicted without high multicollinearity. Stranded on this rule of thumb, the result of VIF test reported in Table 2 below shows tolerable collinearity between continuous explanatory variables with mean VIF equal to 4.91.

Variable	VIF	1/VIF
age(age)	1.66	0.602409

	0.14	0.4(2000
education(edu)	2.14	0.462890
dependency ratio(dr)	3.25	0.306920
1 1 - 11 (1)	1.55	0.210900
nousenoid size(ns)	4.55	0.219800
annual income(ai)	1.11	0.900900
	2.15	0.465116
saving(s)	2.15	0.465116
household labour(hl)	2.86	0.346020
1	2.10	0.21247
drug addiction(da)	3.19	0.31347
household labour(hl)	2.31	0.43290
	4.01	
Mean VIF	4.91	

Source: Author's computation using Stata15 (2020).

As to Healy (1984) a contingent coefficient with a value of 0.75 and above indicates high collinearity. However, the result computed for the given model is even below 0.5 for all the discrete variable used in the study. Thus, the results of Table 2 above and Table3 below indicate that perfect collinearity among variables (case where a variable may represent other(s) is no more an issue.

Table -3:Multi-collinearity	Test Results	for Discrete	Variables
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Variable	Pfp	Pi	Cl	Da	Но	rfbg	sil	rum	lfs	ljo	Pses
poor family	1.00	0.00	0.17	0.03	0.01	0.00	0.03	0.65	0.15	0.31	0.21
planning(pfp)	0	1	0	1	1	5	1	1	1	2	1
political	0.00	1.00	0.10	0.01	0.07	0.71	0.41	0.71	0.19	0.21	0.13
instability(pi)	1	0	1	0	0	0	0	0	1	4	1
cost of living(cl)	0.51	0.19	0.33	0.33	0.33	0.33	0.33	0.33	0.41	0.23	0.21
	0	1	1	1	1	1	1	1	0	1	3
dependent	0.33	0.71	0.19	1.00	0.08	0.08	0.08	0.08	0.33	0.11	0.21
attitude (da)	1	0	1	0	1	1	1	1	1	1	1
home	0.08	0.33	0.31	0.19	1.00	0.31	0.41	0.51	0.08	0.23	0.33
ownership(ho)	1	1	0	1	0	0	0	0	1	1	3
rich family	0.52	0.08	0.33	0.71	0.19	1.00	0.33	0.33	0.51	0.25	0.12
background(rfbg	1	1	1	0	1	0	1	1	2	1	1

)											
sustained(sil)	0.49	0.51	0.08	0.33	0.71	0.19	1.00	0.08	0.49	0.23	0.21
	1	2	1	1	0	1	0	1	1	1	1
Rural urban	0.43	0.49	0.51	0.08	0.33	0.51	0.19	1.00	0.23	0.31	0.15
migration(rum)	1	1	2	1	1	0	1	0	1	2	1
lack of family	0.19	0.63	0.49	0.51	0.08	0.33	0.71	0.00	1.00	0.21	0.13
solidarity(lfs)	1	1	1	2	1	1	0	1	0	2	1
Lack of job	0.25	0.31	0.15	0.25	0.22	0.13	0.25	0.11	0.22	1.00	1.00
opportunities(ljo)	1	5	1	1	2	6	5	5	6	0	0
Poor self-	0.41	0.42	0.32	0.21	0.23	0.21	0.21	0.11	0.32	0.21	0.11
employment skill(Pses)	1	2	1	4	1	5	4	5	1	1	1

Source: Author's computation using Stata15 (2020).

Second, the overall goodness-of-fit(gof) or accuracy of the fitted model is best checked using Receiver Operating Characteristic (ROC) curve after the logit model is estimated following Hosmer & Lemeshow(2006).The graph of the ROC curve is a graph of sensitivity (the ability of the model to predict an event correctly) versus one minus specificity as the possible cutoff is increased from 0 to 1 (**StataCorp 2013**). Sensitivity refers to the fraction of observed positive-outcome cases that were correctly classified, while specificity is the fraction of observed false-positive cases that are correctly classified. The greater the predictive power, the more bowed the curve, and hence the area under the ROC curve is used to measure the predictive power or accuracy of the diagnostic test. A model with no or worthless predictive power has an area of 0.5, while a ROC area with 1 represents a perfect model. Therefore, Figure 2 below shows that the model almost perfect predictive power as the area under the curve is 0.9800 (Hosmer & Lemeshow, 2000)

Figure 2. Receiver Operating Characteristic Curve of the Model



And also the link test was conducted after the logistic regression to detect a specification error. This test regress the independent variable on its predicted value (\_hat) and the predicted value squared (\_hatsq). The outcome of the link test (specification errors test) in Table 4 indicates that the model equations were properly specified as predicted by the hat-statistic (\_hat) as the p-value is 0.000. The variable \_hat should be

statistically significant predictor unless the model is completely miss-specified. On the other hand, if the model is correctly specified, the prediction squared (\_hatsq) should not be significant. Therefore, the result of link test shows properly specified model. Therefore, it is concluded that the diagnostic tests confirmed that the logistic regression model is adequate and fits the observed data well.

Tał	ole	-4:	Link	Test	Resul	ts of	the	Empirical	l Mod	le
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MD	Poverty	Coefficient	Standard Error	Z	$\mathbf{P} >  \mathbf{Z} $
Status					
_cons		0.0065256	.2323161	0.05	0.852
_hat		2.017002	.1021578	6.03	0.000
_hats q		-0.0203152	.1504731	-0.14	0.592
n = 400		LR Chi2(5)	) = 85.20		<b>Prob&gt; Chi2 = 0.0000</b>
		<b>Pseudo R2 = 0.2501</b>			

Source: Author's computation (2020).

# **3.3** Causes of Multidimensional urban Poverty in the Study Area

The incidence of multidimensional poverty computed previously provides essential evidence on the extent of multidimensional urban poverty in the study town. However, as a matter of its nature it doesn't convey any information on what influences that multidimensional poverty. Therefore, the logistic regression output presented in Table 5 below provides the determinants of multidimensional poverty and the marginal effects of each independent variable.

Determinant of poverty	Marginal Effect	Standard error	Z	P> z
Age	-0.019	0.0132	-3.512	0.000***
Edu	-0.090	0.0531	-1.951	0.005**
Hs	0.111	0.0812	1.750	0.007*
Dr	0.051	0.0291	4.810	0.002***
Ai	-2.096	0.465***	-6.21	0.000***
S	-0.291	0.364***	-3.881	0.000***
Rum	0.1123	0.0135	5.25	0.000***
Da	0. 0461	0.0191	4.210	0.000***
Pfp	0.0561	0.0201	5.131	0.000***
Lfs	0.0287	0.0235	3.100	0.000***
Но	-0.558	0.061	-4.120	0.000***
Rfb	-0.558	0.0235	-8.910	0.000***
Si	0.237	0.0335	2.912	0.000***
HI	-0.030	0.061	11.10	0.000***
Pi	0.7651	0.0341	2.160	0.005***
Cl	0.2421	0.0139	4.621	0.001***
Da	0.0287	0.0061	3.172	0.001***
Ljo	0.475	0.23505	2.021	0.001***

<b>T</b> 11		<b>D</b>	<b>T</b>				
Table-	5 Logistic	Regression	Estimates	of Determinants	of Poverty	v in Dambi Doll	o Town

Pses	0.0085	0.23505	3.210	0.000***	
Constant	-5.3012	0.008	-10.231	0.000***	
n = 394	LR Chi2(5) =	= 85.20			Prob> Chi <sup>2</sup>
= 0.0000					
	Log	likelihood	=		-1934.8548
Pseudo $R^2 = 0.2501$					

Note: \*\*\*, \*\* and \* indicates that coefficients and marginal effects are significant at 1%, 5% and 10% level of

Significance, respectively

#### Source: Author's computation (2020)

The logit model with a significant chi-square even at below 1% shows that the model is a good fit for the data set. The pseudo  $R^2$  is 25.01% and the log likelihood is -1934.8548. Table 5 revealed that the set of variables captured by the model all significantly determine urban multidimensional poverty in Dami Dollo town for the study period.

The result showed that lack of job opportunities (ljo) was positively significant at 1%. For an increase in the job opportunities by 1%, the probability the household being multidimensional poor decreases by about 47.5%. This is because the better and the competitive job opportunities (in both public and private sector) means the higher will be capacity of the households to generate income in sustainable manner and with sustainable income there is always a way to escape from poverty. Political instability, rural urban migration and self-employment skills are another highly poor significant variables found positively affecting the chance of being multidimensional poor with marginal effect of 76.51%, 11.23% and 0.85%, respectively; at 1 % significance level. Thus, political instability persisted in town since 2013, poor self-employment skills and rural to urban migration of the respondents combined with lack of job opportunities will worsen the poverty status of the household in the town; as it is can be expected that poor-entrepreneurship skills, migration rural-urban and acute political instabilities shortcake can the potential employment possibilities of the town in many ways. Also there is no prior study in the town to compare such findings; these results are in agreement with findings from interview on the nature of poverty reported on previous sections. Other variables that directly and significantly affect poverty are discussed as follows:

**Cost of living**: cost of living as one indicator of poverty captured the impact of inflation on poverty. It is clear that inflation in the Ethiopian economy has been increasing. And this study shows that the 1% increase in cost of living for average fixed income earner household in the town will increase probability being poor by 24.21%. This supports the theory on inflation; increased cost of living means reduction in real value of household assets and savings; thus; lower and lower economic values due to trending inflation mean that fixed income earners will be poorer and poorer.

Household size, poor family planning and dependency ratio: a person increase to the household size will increase the probability that the household will be poor by 11.1%, on average, and it is significant at 5%. Similarly; for those households with poor family planning, the probability of being poor is by 5.6% greater than that of the counter parts and it is significant at 1%; and for 1% increase in dependency ratio, the probability of being poor will rise by 51% and is significant at 1%. Thus, it can be traced that poor family planning has led to high dependency ratio. This in turn meant larger but unplanned household size.

Increased family size in the household means increased consumption expenditure which in turn will need increased household budget which is always hardly increased as of the case. It also reduces household saving. Moreover, larger household size with larger children needs larger investment on children education. However, educating the children cannot help the household to escape from poverty in the short run although it would bear fruits after many years. On other hand, larger household size with larger elder members will have demand side burdens instead of contributing to labor, income and other economic resources to the household.

Sustained illness, drug addiction and lack of family solidarity: the marginal effects of sustained illness, drug addiction and lack of family solidarity are also found positively contributing for the probability of household's multidimensional poverty status. When we see the marginal effect of sustained illness it is directly linked to the probability of being poor at the magnitude of 23.7%. This is because prolonged sickness will lead to poverty by limiting/stopping the individual's economic activity and even it could lead to survival hardship if the household income mainly depends on the sick household head/member as there are no free meals. For a 1% increase in the frequency on which the household head takes alcohols (which measured drug addiction), the probability that the household be poor increases

by 2.78% on average at 1%. The possible reason is that drug addiction leads to extra costs and thereby reduces household saving. Drug addiction can also lead to poor family solidarity which is another important indicator of poverty. And from model it can be seen that 1% increase in poor family solidarity in the household adds 2.87% chance of being not rich.

On the other hand, the following variables are found to negatively determine the chance of being poor:

**Education:** for a year increase of a household education, the probability that household will be poor will decline by 9% on average and is significant at 5%. This is because additional schooling years by household may give additional skills to understand the economic environment in which it lives that the household could cope up with it. Moreover, better skills and wisdoms resulting from education can lead to better allocation of resources against poverty. Besides, it is also noted that increase in education comes with increased fortunes of employment and social opportunities.

Household age: for a year increase of a household age, the probability that household will be poor will decline by 19% on average and is significant at 1%. This is in line with the arguments captured by the dynamics of poverty. Furthermore, in underdeveloped countries like Ethiopia limited technological with advancements, lower incomes and savings; it would take too long for common household to accumulate wealth and become non-poor. As one can likely expect based on the contemporary economic theories; household annual income, saving, home ownership, rich family back ground and household labor are also reported reducing the chance of being poor for each urban household. Moreover, all are found significant one percent.

## 4. CONCLUSIONS

The major objective of the study was to identify the determinants of multidimensional poverty in Dambi Dollo town, Kellem Wollega Zone, Orimya, Ethiopia following a cross sectional design. The analysis was based the crosssectional data obtained from 394 sampled household living in the town in 2020. The result on the depth of multidimensional poverty index at k=5 report that 53% households in town are poor whereas the remaining 47 % of were found non-poor. The Logistic regression results show that the households are more likely to be multidimensional poor for lack of job opportunities, poor skill on self- employment, household size, dependency ratio, rural urban poor self-employment migration, skills, dependent attitude, poor family planning, lack of family solidarity, sustained illness, political instability, cost of living and drug addiction. On the other hand; household age, education, annual income, saving, rich family back ground, homeownership and household labour are the indicators found determining the chance of being multidimensional non-poor.

# 6. RECOMMENDATIONS

Promoting education, proper family planning, solidarity, entrepreneurship, family health insurance and saving to the households in the study population through capacity building trainings and workshops will help the household to be not deprived in terms of such indicators. Educational institutions such as Dambi Dollo University and NGOs in the area could play roles regarding this. Increasing income of the household needs expanding job opportunities in the area. For this end expanding investment (both public and private) in the setting is very crucial. However, since investment is expected to be elastic to political instability, both the federal and local governments should work with so as enhance sustainable peace and stability in the area as there is instability since 2004. Rural urban migration which is found directly linked with the odds ratio is also because of political instability in the districts of the given Zone. Thus, enhancing peace and security in Kellem Wollega Zone may help to control the ruralurban migration and its effect on poverty. The poor households themselves must develop hard working attitude and aslo need to diversify their income sources

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