

Determinants of Household Saving Behavior: The Case of Selected Towns in West Hararghe Zone, Oromia National Regional State, Ethiopia

Mahmud Abdurahman¹

Abstract

The way in which a society develops its saving habit affects capital accumulation and, consequently, a nation's economic growth. Household saving in Ethiopia is very low, and this low level of saving restricts a country's rate of economic growth. The aim of this study was to investigate the determinants of household saving behavior in selected towns of West Hararghe Zone, Ethiopia. The study used cross-sectional data gathered from 395 randomly chosen sample households residing in West Hararghe Zone self-administered towns. Result of the tobit model showed that age of household head, family size, dependency ratio, educational level of household head, monthly household income, and form of institutions used for saving were significant determinants of household saving behavior. The study has emphasized the importance of awareness creation relating with saving, household income improvement, family size reduction, and enhancement on educational level of household heads to shape the behavior of household's towards saving.

Keywords: Household, saving behavior, Tobit model, Ethiopia, West Hararghe zone

¹ Samara University, Department of Economics, Samara, Ethiopia,
Email address: mah934445@gmail.com

Introduction

Saving is the act of putting aside your part of current income for investment or use in the future. The saved money is to be invested in different forms of capital, kept at home, or deposited in banks. Household saving is part of the income of consumers, which is a key element in wealth accumulation and a major factor in micro and macroeconomic growth (Temam and Feleke, 2018). At the micro level, saving make a significant contribution to the well-being of the individual (Ingale and Paluri, 2020). It also has a collective macro-level impact on economic growth, as when people save, they contribute to the country's capital accumulation (Jumena et al., 2022).

Households represent the core of national savings, which is essential for economic growth and development. Households account for a significant share of savings in both industrial and developing countries. In this way, most economic models treat the incentive to save from the perspective of households. Households need to save money to reduce their vulnerability to adverse shocks. A safety net is created by saving, either in kind or in cash. In the long term, saving can help to raise the income base (Ogren, 2018). Most developing countries have a low level of savings. In particular, Sub-Saharan Africa is struggling with low savings rates, limited capital accumulation, and unsustainable growth that lead to underdevelopment. Using the latest World Bank figures (2023), it is clear that fragile economies outperform sub-Saharan African economies in terms of domestic savings. Therefore, improving saving habit is a top priority for people in this part of the world.

The Ethiopian household saving rate is very low. This low level of household savings limits the country's expected economic growth rate (Yonas and Gebrekrstos, 2016). According to the National Bank of Ethiopia (2019), there is a significant resource gap in 2019 gross domestic savings as a percentage of GDP which is only 20.9%, indicating a large resource gap compared to gross domestic investment, which is 30.8 percent of GDP. Furthermore, according to the National Bank of Ethiopia's summary and report, the typical Ethiopian household saves 875 Birr a year in financial institutions. This is not enough to support sustainable economic development and growth. Over the past four years, Ethiopia's overall investment-to-GDP ratio has been falling (UNDP, 2024).

Saving mobilization among households is also low in the Oromia regional state of the Western Hararghe area. This is evident in the fact that households are unable to meet basic living needs in this period of high inflation on consumer goods. Such a low level of household saving affects capital accumulation and thus the economic growth of the country as a whole and the financial well-being of households in particular. Investing in households' saving behavior is therefore crucial in this area, as the mobilization of savings and the resulting accumulation of capital starts with individual members of society. Finding ways to increase household saving in Ethiopia has attracted considerable attention from researchers. However, most researches done in the country are at macro level which ignores consumer heterogeneity by assuming a representative household agent. Although, empirical studies have been carried out with regards to saving behavior of households at micro level in different parts of Ethiopia (Bizunesh 2011; Teshome *et al.*, 2013; Yonas and Gebrekristos 2016, Tarekegn and Geremew 2017, Abdela 2018; Wolde 2018; Mekonin and Birhane 2018, Tesfaye 2021, Feyisa and Gebisa 2021, Samuel 2023, Fikadu 2024), most of them were conducted in rural and urban areas collectively. However, these combined researches ignored the rural and urban household heterogeneity. In addition, no empirical research on household saving behavior is available in the West Hararghe area, as far as researchers know. In view of these research gaps, this study examined the determinants of household saving behavior in selected towns of West Hararghe zone using microeconomic evidences.

Related Literature Review

Theoretical literature review

Definition and concepts

The word “saving” according to Warneryd (1999) contained broad-based meaning and numerous explanations. In economic context, saving is defined as the residual income after deducting current consumption over a certain period of time. On the other hand, people are likely to define saving as investing, putting money in a bank account, speculating and paying off mortgages. Conversely, saving in psychological context is referred to the process of not spending money for current period in order to be used in the future.

Saving behavior is the combination of perceptions of future needs, a saving decision and a saving action (Warneryd, 1999). Saving could be examined in terms of its aggregate behavior or at a

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personal or household level. In addition to distinguishing the unit of analysis, it is also imperative that a distinction be made between saving behavior in developed and developing economies. As Deaton (1989) noted, there are many good reasons which indicate that factors that determine saving behavior in developing countries are likely to differ from that of developed countries. These differences include both macroeconomic aspects of saving (mainly related to institutional and policy issues) and microeconomic factors (such as family structure and type of asset- portfolios available for households in the two group of countries).

The household saving rate can be defined in different respects, the definition used plays a significant role in determining both how household savings trends change, and what determines the motivations behind household saving. Starting off by specifying what it is we are interested in determining. Poterba (2002) presents two definitions for household saving. First, measuring household saving as the flow of income minus the flow of expenditures during a given time period. Secondly, household saving defined as the changes in a household net wealth during a given time period, which is equal to the first definition plus any capital gain or loss on existing assets in a time period. Such gains and losses in capital can often account to more than saving flow of income minus expenditure during the given period. Most previous studies on household saving behavior do not rely on the second definition, due to the problem of measuring gain and losses in capital. So, this study was relied on the first definition, (often with the modification to include pension fund reserves) as in the study conducted by Rocher and Stierle (2015). The foremost reason for choosing the first definition is, that the interest of these studies is in how much of our disposable income we choose to consume and how much of it we choose to save for a later period and what determine these ratios.

Saving theories

Beverly (1997) classified saving theories in four categories.

- 1. Neo-Classical Economic Theory:** Saving theories seem to have their origins in neo-classical economic theory. According to this theory, individuals are viewed as rational beings that maximize their own self-interest. The individual must make a choice between current consumption and future consumption. Income and wealth are economic resources which can

be used to finance consumption. Saving will rationally benefit the future, because it is considered as future income for long-term consumption.

- 2. Psychological and sociological theories:** individual interaction with the environment is the key to saving. Economic psychologists attempt to explore how the effects of external stimuli on economic behavior are conditioned by internal variables such as aspirations, expectations, family, peer groups, etc.
- 3. Behavioralist theories:** This concept does not assume that savings preferences are fixed and determined by preferences and economic resources. Instead, individuals are expected to react to and even create their own incentives and responses for behavior. Although it resembles psychological and sociological theories, the concept focuses more on the behavioral response to external stimuli.
- 4. Institutional theory:** saving is based on the idea that individual and household savings are shaped by institutional processes through which savings are made. Saving is the result of an institutionalized mechanism that involves rules, incentives, and subsidies. Individuals with access to these institutions are rational in accumulating assets (Sherraden, 1991). The mandatory social security saving and the tax incentives for individual savings in retirement mutual funds are among the main examples of this category.

Empirical Review

Various empirical studies have been carried out to investigate savings behavior of households in developed and developing countries, from the national to the district level, and from rural to urban households. These studies identify different characteristics that change households' saving behavior. For instance, Erkam and Omer (2023) carried out a study to investigate the determinants of household savings behavior in Turkey by means of binary logistic regression and binary probit regression methods. Their study results showed that the employment status of the head of household, educational status, gender, age, marital status, household size and car ownership are important determinants of household savings behavior. Similarly, a study by Anthony et al (2024) shows that household income, educational attainment, employment status and households with new-born children are the main drivers of household savings behavior in Ghana.

In 2018, Asare et al. conducted a study to answer the question of what factors determine household savings in Ethiopia by using a two-part model. The results of their study show that the number of contacts extended and access to market information have a significant positive impact on the likelihood that a household would save. Moreover, the size of the farms and the last year bad production season have a significant impact on the amount of money that households are expected to save. Another researcher, Abdela (2018), studied the determinants of household savings behavior in Mekele town Ethiopia using a binary logistic regression model. A study of his findings shows that, household headed by a woman; total household income and savings experience had a positive and significant effect on household savings.

Feyissa, and Gebbisa, (2021) studied on choice and determinants of saving in rural households of Bale zone, Ethiopia using the tobit model. Their results revealed that sex of household head, education level, family size, average annual income, average annual expenditure, livestock ownership and access to credit were significant determinants of rural households' savings. In the same year, Obsa and Bekele (2021) identified household disposable income, education of household head, number of income earner in the family, livestock ownership, family size, participation in off-farm activities and distance from woreda center as the main factors influencing household saving behavior in rural Ethiopia. The researchers arrived at this finding by taking evidence from Southwest Shewa zone and analyzing it using a tobit model. Another researcher, Tesfaye (2021), using a binary logistic regression model, found that the main determinants of household savings in Jimma, Ethiopia, were the age of the head of household, gender, access to credit, monthly income, family size, education, marital status, interest rates and monthly expenses. In addition, using the same econometric model, Ekmadine (2024) found that income, occupational status, place of dwellings and place of saving were significant determinants of urban household saving in worabe town of Silte, Ethiopia.

In summary, studies may differ in their geographical scope and in the scope of their time period. However, they provide frameworks for identifying which factors influence household saving behavior in areas other than their target place. The conduct of this study in the West Hararghe area was therefore identified as critical.

Research Methodology

Research design

A quantitative research design was employed in this study. The nature of the study objective that can be addressed by using this kind of research design was the rationale behind its adoption.

Type and sources of data

The study used data from primary sources, which included surveys carried out in sample households. The primary data were of a cross sectional nature, containing both qualitative and quantitative data.

Sampling frame, sample size determination techniques and sample size

The sampling frame from which the required number of samples drawn was the total number of households lives in self-administered towns in West Hararghe Zone namely Chiro, Bedessa, Gelemso and Hirna towns. These towns were selected purposively due to greatest number of households reside within them as compared to other areas of the zone. According to the Ethiopian Central Statistical Agency household projection of July 2020, there was 14062, 7598, 6884 and 4867 households in Chiro, Bedessa, Gelemso and Hirna towns respectively which gives a total household size of 33411. The study used simple random sampling technique to determine representative sample households from the selected towns by employing Yamane's (1969) sample size determination formula which is presented as:

$$n = \frac{N}{1+N(e^2)} = \frac{33411}{1+33411(0.05)^2} = 395$$

Where, n is the representative sample size, N is the total population and e is the desired level of precision with 95% confidence level. The researcher has selected the representative samples of 395 households based on the above formula. Moreover, by applying proportional probabilistic sampling formula the researcher has selected 166 households from Chiro town; 90 households from Bedessa town; 81 households from Gelemso town and 58 households from Hirna town.

Methods of data collection

In order to collect the necessary information from the selected households, the researcher developed a questionnaire, which contained open and closed-ended questions. The questionnaire was distributed and filled in with the support of the enumerators selected. To check the clarity of the questionnaire before it is disseminated, the researcher tested its reliability and validity, with a view to making some changes depending on the results of the tests.

Methods of data analysis

The quantitative method of data analysis was used to analyze the collected data. The researcher employed both descriptive and econometric data analysis techniques. To analyze the descriptive data the mean, standard deviation, percentages and t – test were used. To examine the factors influencing household saving behavior, an econometric data analysis method called the tobit regression model was employed. Stata version 17 was used to examine all of the information that was gathered.

Model specification

Tobit model was used to investigate major determinants of household saving behavior. This model had chosen because the amount of household savings tends to be censored at the lower limit of zero (Gujarati, 2007). Given the existence of households who do not save or with saving rate of less than or equal to zero, the rate of saving can be categorically expressed as:

$$y = y^* \quad \text{if } y^* > 0 \text{ or if the saving rate is positive}$$

$$y = 0 \quad \text{if } y^* \leq 0 \text{ or if the saving rate is zero or negative}$$

So, if a household has zero or negative saving rate, y^* , $y = 0$ (Verbeek, 2004). This provides us the standard tobit model, which we formalize in the following way.

$$y_i^* = x_i B + e_i \quad i = 1, 2, \dots, N$$

$$y_i = y_i^* \quad \text{if } y_i^* > 0$$

$$y_i = 0 \quad \text{if } y_i^* \leq 0$$

Where: x_i is vector of factors affecting saving rate of household i

B is vector of coefficients of factors affecting the saving rate

e_i is an error term which is assumed to be NID $(0, \sigma^2)$ and independent of x_i

This model is also referred to as the censored regression model. It is a standard regression model, where all negative values are mapped to zero. That is, observations from below were censored at zero.

Description of variables and hypothesis setting

Table 1: Description of variables used in the tobit model and their expected relationship with the dependent variable

Variable Name	Type	Description	Expected relationship with dependent variable
Average monthly saving	Continuous	The level of monthly average saving by the household	---
Age	Continuous	Age of the respondent	As age increases, the saving rate of the household also increases
Sex	Dummy	0 = Female, 1= Male	Being female have a positive relationship
Marital status	Categorical	0 = Single 1= Married 2 = separated 3= divorced	Having marriage have a negative relationship
Family size	Discrete		Households with large family size are expected to save less
Dependency ratio	Continuous		Households with dependency ratio are expected to save less
Educational level of HH head	Categorical	0 = illiterate 1 = primary 2 = secondary 5 = higher and preparatory 6 = diploma 7 = degree and above	As level of education increase, rate of saving is expected to increase.
Monthly HH income	continuous		High monthly income is expected to lead for high saving

Asset ownership	Dummy	0 = have no asset 1 = have asset	Those households having an asset are expected to save less
Remittance	Dummy	0 = did not receive remittance 1 = receive remittance	Remittance receivers are expected to save more
Expectation about the future income	Categorical	1 = increase 2 = decrease 3 = remain constant	Households with positive (increase) income expectation are expected to save less.
Form of institutions used for saving	Dummy	0 = informal 1 = formal	Saving in the formal financial institutions is expected to increase the households saving rate

Source: Own constructed, 2024

Results and Discussion

Demographic and Socioeconomic Profile of the Respondents

Sex and marital status

From the total respondents incorporated in the study, 62.27 percent of the households were male headed and the remaining 37.72 percent of them were female headed (Table 2). As shown in the table below, 61 percent (241) were married, while the rest 18.22 percent (72) and 8.86 percent (35) were single and divorced respectively. This indicate that majority of the household heads were married male headed households.

Table 2: Distribution of respondents by sex and marital status

Characteristics	Response	Frequency	Percent
Sex	Male	246	62.27
	Female	149	37.72
	Total	395	100
Marital status	Single	72	18.22
	Married	241	61.01
	Divorced	35	8.86

	Widowed	21	5.31
	Separated	26	6.58
	Total	395	100

Source: Own survey data, 2024.

Age and household size of respondents

As indicated in table 3 the average age of household heads was 39.56 years with the minimum and maximum ages of 23 and 84 years with standard deviation of 8.216 years. Regarding household size, the mean household size of the total sample households is 5.92 which is around six. The sample households are with a minimum of three and a maximum of 12 household members with standard deviation of 1.857. This shows that the average family size of the respondents in the study area were above the country’s average family size which is equals to four.

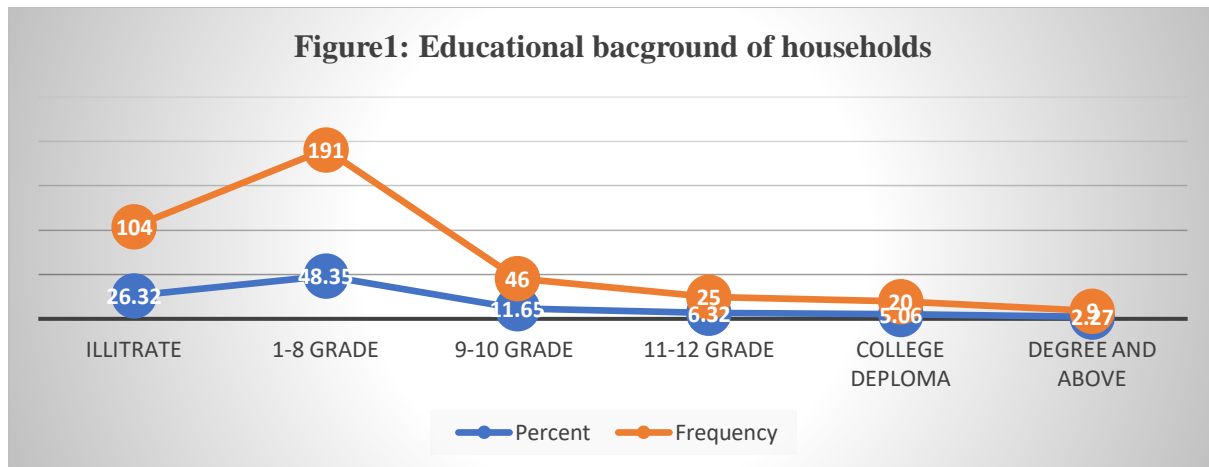
Table 3: Age and Household size for respondents

Variable	Observation	mean	Std. dev.	min	max
Age	395	39.56	8.216	23	84
Household size	395	5.92	1.857	3	12

Source: Own survey data, 2024.

Educational background

With regard to education background of the households, the researcher were used the number of schooling years of the household head as an indicator of household schooling level. The educational status of households in the study area was indicated in figure 1 below. It shows that 73.7 percent of household heads had formal education. From those attained formal education, the majority had primary education, with very few having attained secondary education, preparatory and college level education. Of the 395 households, 26.32 percent are illiterate, 48.35 percent have attended primary level of education and only 2.27 percent of households have educational level of degree and above.



Source: Own survey data, 2024.

Household’s income, expenditure and saving Patterns

Income, expenditure and saving have an important identity function. According to economic theories saving is the difference between income and consumption. The major source of income for the sample households was salary, business activities (grain mill, transport, shop, hotel, restaurant, and beverage); trade (sales of grain, cloth and drinking); wage employment by member of household; remittance from relatives or friends; rent (house, car or other equipment); aid from government or NGOs; urban farm products and pension. As shown in table 4, the amount of income generated from business activities varied from one sample household to another ranging from Birr 1,500 to a maximum amount of Birr 18,500 per month with standard deviation of Birr 9,652.54.

Table 4: Monthly income pattern of households

Source of household income	mean	Standard deviation	minimum	maximum
Salary	2564.5	121.23	950	12500
Business activities	3265.4	9652.54	1500	18500
Trade	2600.35	4658.12	1300	8550
Wage employment	1524.21	2453.55	1550	9500
Remittance	752.4	2564.04	500	13000
Rent	1250.21	250.12	300	6800
Pension	567.25	564.28	550	2600
Farm products	264.89	1568.07	960	7500

Source: Own survey data, 2024.

In this study, expenditures were summarized into two main components (expenditure on food and non-food). As it is indicated in table 5 the survey result revealed that the sample respondents' average monthly food expenditure amount were 2,486.87 Birr, and non-food expenditure constituted 3,450.54 Birr, respectively. The monthly food consumption expenditure of sample households ranged from 750 Birr to 8,600 Birr, and the standard deviation of food expenditure was 4,247.45 Birr. From all the expenditures of sample households, expenditure for non-food items (clothing, school fee, health care etc), ranged from Birr 2,000 to 35,000, and the standard deviation of non-food expenditure was Birr 1,265.14.

Table 5: households' monthly expenditure pattern

Expenditure type	mean	Standard deviation	minimum	maximum
Expenditure on food	2486.87	4247.45	750	8600
Expenditure on non-food	3450.54	1265.14	2000	35000

Source: Own survey data, 2024.

Household's average monthly saving level in towns of West Hararghe Zone

The monthly average saving level of the sample respondents indicates the difference between total monthly income and total monthly expenditures of households. The amount of saving within the preferred frequency ranges from -300 Birr to 3,000 Birr. The average saving is 125.35 Birr with standard deviation of Birr 2,487.34 (Table 6).

Table 6: households' monthly saving level

	mean	Standard deviation	minimum	maximum
Saving magnitude	125.35	2487.34	-300	3000

Source: Own survey data, 2024.

Table 7 shows summary of percentage rate of saving of the 395 sample households. The majority of the households (67%) have zero or negative saving. The table indicates that aggregate mean

monthly saving of the sample individuals is about 8% of their monthly income, on average. This rate of saving seems to be much lower than rate of household saving in other fastest growing economies like South Korea where individual households are able to save about 50% of their monthly income (WDI, 2021).

This study indicates only 33% (132) of the total sample individuals save. More than one third of households do not have any contribution to the rate of saving. If we consider only those who have positive rate of saving, average monthly saving by the household (who save) becomes about 12% of their monthly income. Even this is far below that of the case of middle-income countries.

Table 7: household saving rate summary

Respondents	Number	Percentage	Average rate of monthly saving
Having positive rate of saving	132	33.41	12.21
With no positive rate of saving	263	66.56	0
Aggregate average rate of monthly saving			8.24

Source: Own survey data, 2024.

The result of independent sample t-test revealed that there was statistically significant mean difference of 8827.5 Birr between households with savings and with no savings at less than 1% significance level (t-value=5.326, P-value= 0.000).

Determinants of household saving behavior

This study has employed tobit model for investigating the determinates of household saving behavior using cross sectional data as an input. While using cross-sectional data we may come across problem of heteroscedasticity (Greene, 2008). To correct the heteroscedasticity problem the study estimated the robust standard errors instead of the usual standard errors (Wooldridge, 2002). Hence, the tobit model which is used in this research was corrected for heteroscedasticity problem using the robust command in Stata. The problem of multicollinearity was also tested using correlation matrix. According to (Gujarati, 2007) as a rule of thumb, multicollinearity is a serious

problem, when a pair wise correlation coefficient between two independent variables is greater than or equal to 0.8. The correlation matrix test indicates the absence of series multicollinearity problem in the data.

A total of eleven explanatory variables were considered in the econometric tobit model. Out of which six variables were found to be significantly influence the saving behavior of households in the study area. These variables were age of household head, education level of the household head, family size, dependency ratio, monthly household income and form of institutions used for saving.

The tobit regression result presented in table 8 showed that household saving behavior in west Hararghe zone is significantly and positively determined by age of the household head at 1% level of significance. The coefficient of age of the household head indicates as age of the household head increase by 1 year, saving rate of the household increases by 41 Birr. The reason for this relationship might be age related saving motivating factors. This finding is in line with the research hypothesis. It was also consistent with the findings of Dawuda et al. (2015) who found a positive relationship between age of the participants and saving habits. To the opposite, the finding of the study contradicts with research finding obtained by Erkam and omer (2023) in which the saving probability in the 35-64 age group decreased and that the group over 65 years held the highest saving tendency.

Table 8: Tobit model estimates for determinants of household saving behavior

Tobit regression			Number of obs = 395 LR chi2(6) = 257.12 Prob> chi2 = 0.0000 Pseudo R2 = 0.7642	
Log likelihood: -326.84572				
Saving	Coef.	Rob. Std. Err.	T	p>t
Age	41.0837	556.7841	4.07	0.000*
Sex	.568743	995.4832	0.21	0.625
Marital status	-68.2794	118.3281	- 0.49	0.791
Family size	-18.2253	1240.362	- 3.59	0.000*
Dependency ratio	-3.421	2340.427	- 2.15	0.024**
Educational level	235.353	1641.271	2.34	0.021**
Monthly household income	.251742	1894.475	5.63	0.000*

Asset ownership	38.24	812.217	0.34	0.242
Remittance	33.831	237.675	0.57	0.151
Future income expectation	-12.3451	312.07	-0.06	0.840
Form of institution	.0129999	1672.11	2.87	0.002*
-cons	-57.3951	980.615	-0.09	0.802
/Sigma	164.5801	870.476	0.18	0.506

Note: * 1% significance level, **5% significance level.

Source: own computation from survey data, 2024.

Educational level of the household head significantly and positively related to household saving behavior at 5% level of significance. The result indicates that the effect of change in the education level of a household head increases the intensity of savings by 235.353 Birr on average. That means as education of the household head shifts from primary to secondary, it will result in an increase in household savings by 235.353 Birr. This relationship may be due to the fact that those who have low educational qualifications are engaged in lower income earning employment and get low level of income where as those with higher education are engaged in higher income generating occupations and able to save some portion of it. Previous studies such as Zengin et al., (2018), Erkam and Omer (2023) had also investigated the positive relationship between education level and saving behavior of households.

Another important and significant variable was family size of the household. This particular variable was negatively and significantly affected the saving behavior of households with 1% level of significance. As family size of the household increases by 1 unit, the saving rate of the household would decrease by 18 Birr on average. Some studies accomplished similar results (Nayak and Subhashree, 2013, Idrees, et al., 2020). For instance, Nayak and Subhashree (2013) revealed large family size leads to low savings as the maximum part of their income were spent on family consumption expenditure. It was determined that dependency ratio is a significant variable having negative impact on household saving behavior at 5% level of significance. This finding proves the life cycle hypothesis of consumption which states that individuals tend to dissave at their lower and higher ages. Children below 14 and people above 65 years contribute nothing to the saving rather they just consume. This result was in line with the findings of Abdella (2018).

The roles of income in stimulating saving stems were also the other significant variable investigated by this study. Accordingly, the result of this survey discloses that monthly disposable income of household is positively correlated to household saving behavior and significant at 1% level of significance. This showed that, as household income increases the saving level of the household also increase. Whenever, the household's income increased by 1 Birr the saving of the household increases on average by 0.25 Birr. The role of income in stimulating saving stems from the Keynesian link between saving and income which state higher incomes raise the capacity to save.

The study conducted by Abera, (2016) around Dire Dawa area had the same finding with this study which argued higher rate of income can increase the probability of saving. The result is also in accord with previous study by Nayak (2013) which indicates that a large and rapid increase in income tends to raise the rate of household savings because household capacity to save increases with household income. Obsa and Bekele (2021) also uncovered the positive relationship between household disposable income and household saving behavior. The form of institutions that households used for saving is another strong determinant factor (significant at 1% level of significance) for household savings behavior in west Hararghe zone. It indicates that those households who used formal institutions such as banks are in a better performance than those used the informal once on their saving level. Ekmadine (2024) also investigated a positive relationship between household saving and form of institutions used for saving.

Conclusion

Household saving is part of consumer's income which is an essential component in wealth accumulation and superiority both on micro and macroeconomic growth. The household saving behavior play an important role in short-term economic stability and long-term economic growth. The objective of this study was to investigate the determinants of household saving behavior in selected towns of West Hararghe Zone, Ethiopia. To address its objective the study used a quantitative data collected from 395 randomly selected households.

The tobit econometric model was used in this study in which it was considered a total of eleven explanatory variables that were expected to determine household saving behavior. Out of these, six variables namely age of household head, education level of the household head, family size, dependency ratio, monthly household income and form of institutions used for saving were investigated as the main significant determinants of the saving behavior of households in the study area. Out of these variables, age of household head, educational level of household head, disposable household income, and form of institutions used for saving were the positive determinants while family size and dependency ratio were negative determinants of household saving behavior in the study area.

Recommendations

Based on the findings of the study, the following policy recommendations were forwarded.

- As indicated in the finding, monthly disposable income is positively and significantly determines household saving behavior. Consequently, an important policy implication would be that the government strives to increase disposable income of households through different mechanisms. This may be achieved through the creation of employment opportunities for citizens and the efficient utilization of domestic resources. Income can also be enhanced when the gross domestic product of the country is increased. Therefore, the government should promote policies aimed towards higher levels of GDP and per capita income.
- The government and concerned bodies should try to shape livelihood interventions for improvement of household income and diversification of income streams for the households which have a round effect on savings.
- Household head's educational level was positively associated with household saving behavior. In this regard, government should escalate educational endeavor of household members. Financial education programs may help household heads make better financial decisions.
- It was found that family sizes and dependency ratio has negatively affect households saving behavior. This finding shows a clear need to educate households to have families that are sized based on their total household income. This could be achieved by designing and

delivering short-term training for households related with income-oriented family sizing by community leaders and development agencies. The government should also promote linked policies related to family planning and household saving. In addition, if dependent family members are not elderly, children, or disabled, they should have to participate in income generating activities in order to support income of the household. This may develop a work habit and create opportunities for other household members. In turn, incremented income for households and in turn savings may be enhanced.

- Formal financial institutions should encourage and increase the saving incentives and introduce financial product that able to mobilize funds easily. Therefore, interference of bank managers is needed to increase the role of formal financial institutions in improving households saving behavior.

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