

DETERMINANTS OF URBAN HOUSEHOLDS SAVING: THE CASE OF WOLAITA SODO TOWN, SOUTHERN ETHIOPIA

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Abstract

The study was conducted to identify Determinants of Urban Households Savings in Wolaita Sodo town. Data for the research was collected from 240 urban households from four Kebeles. Data was collected using both primary and secondary sources; the multi-stage technique was used to meet with the study points. To attain the study's stated objectives used different data analysis methods, i.e. descriptive analysis and econometric analysis to identify independent variables' effect on the dependent variable. With descriptive analysis percentages, graphs, charts and tables were presented, which affects household saving. The result shows that 51(21.25%) of respondents were under age category 20-29; the 161(67.08%) of respondents were age category 30-64, and 28(11.67%) of the respondents were age greater than 64. According to table 4.1, most of the respondents were under age category 30 to 64, and their response to saving is highest than the rest of the age category. Out of 240 households, 32.92% were with family size 0 to 3, 58.75% household's family size 4 to 6 and the remaining 8.33% household's family size greater than 6. In logistic regression analyses, the variables positively related to the probability of saving are household education, marital status, sex, annual expenditure, interest rate, credit, and annual income. The variables that are negatively correlated with the probability of saving are family size, age, distance from the financial institution, and distance from market and transaction cost. In the table above out of 12 explanatory variables, 8 of the variables, family size, household education level, distance from the market, sex, interest rate, transaction cost, credit access, and annual income have a significant effect on the urban households saving at the significance level at 1 per cent, 5 per cent and 10 per cent.

Keywords: Households, Saving, Binary Logit Model, Income, Expenditure

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INTRODUCTION

Background

Saving has been considered one of the factors affecting growth to lead the developing countries to the path of development. In developing countries, savings are essential factors of households' welfare. On the other hand, without savings, households have few different mechanisms to smooth out unexpected income variations. For individuals and households, savings provide a cushion of security against future contingencies, whereas national savings provide the funds needed in the developmental efforts (Gedela, 2012). Besides, saving enable households to maintain a relatively stable lifetime level of living. It is also likely that households refrain from current consumption to save for payment for children's education.

In many developing economies, particularly Africa, saving and investment are necessary engines for capital formation. It has been argued that saving constitutes the basis for capital formation and capital formation constitutes a critical factor of economic growth. However, available statistics indicate low saving mobilization base and investment in this part of the world (Issahaku, 2011). As a result, economists, international organizations, and governments in developing countries have emphasised the mobilization of deposits to increase urban households' savings and achieve sustained economic growth and development (Kifle, 2012).

Saving defines putting as idea part of current income, to consume or invest it later on. The money saved can be kept at home, deposited in a savings account or invested in different capital types. Because many low-income households in developing countries have a small informal family business or a farm, they invest part of their savings in the production unit, to increase future income. Saving refers to the fraction of income not instantly consumed but kept for future investment, consumption or unforeseen contingencies in the future. It is vital in improving individuals' well-being and serves as security at the times of shocks for the households. Saving is being seen as a method of diminishing the risk resulting from the inability to predict the future and act as a precaution (ibid).

According to Popovici (2012), unexpected events in individuals' life-cycle make saving an essential element in fulfilling the financial gap. Household savings could be intended to address household expenditure, but urban households are constrained due to seasonality of cash flows, work culture, and income, resulting in seasonal and irregular savings. Saving mobilization is also critical for individual welfare in that, at the individual level, it helps households' smoothen their consumption and finance productive investments in human and business capital Karlan *et al.* (2013).

Objectives

The general objective of the study is to assess factors affecting urban households' savings in Sodo town. The specific objectives were to identify forms of savings used by urban households and to identify the significant factors affecting urban households' savings in the study area.

METHODOLOGY

Description of the Study Area

This study was undertaken in Wolaita Sodo Town, which is located in Wolaita zone. The zone is one of the zones in SNNPR. It borders with Gamo Gofa zone in the South, With Dawro Zone in the West, with Sidama region in the East, with Kamabata & Tamabro and Hadiya Zones North with Oromia regional state in the Northern East. The total area of the zone is 4,471.3 km² or 447130 hectares. The zone is classified into 16 woredas and 6 towns, including Wolaita Sodo town (WZFED, 2013).

In the administrative hierarchy, the Town has equal status with other woredas. Spatially the Town is surrounded in ZodoZuria woreda. Wolaita Sodo Town is located at a distance of 329 km and 170 km south-west of Addis Ababa and Awassa. Astronomically, the Town is situated 6°46' _6053' North latitude and 37°42' _37056' East longitude. The altitude of the Town ranges from 1784_ 2346 meters above sea level. The Town's mean annual temperature is 200c, and the mean annual rainfall is 1,212 mm (STMO, 2013).

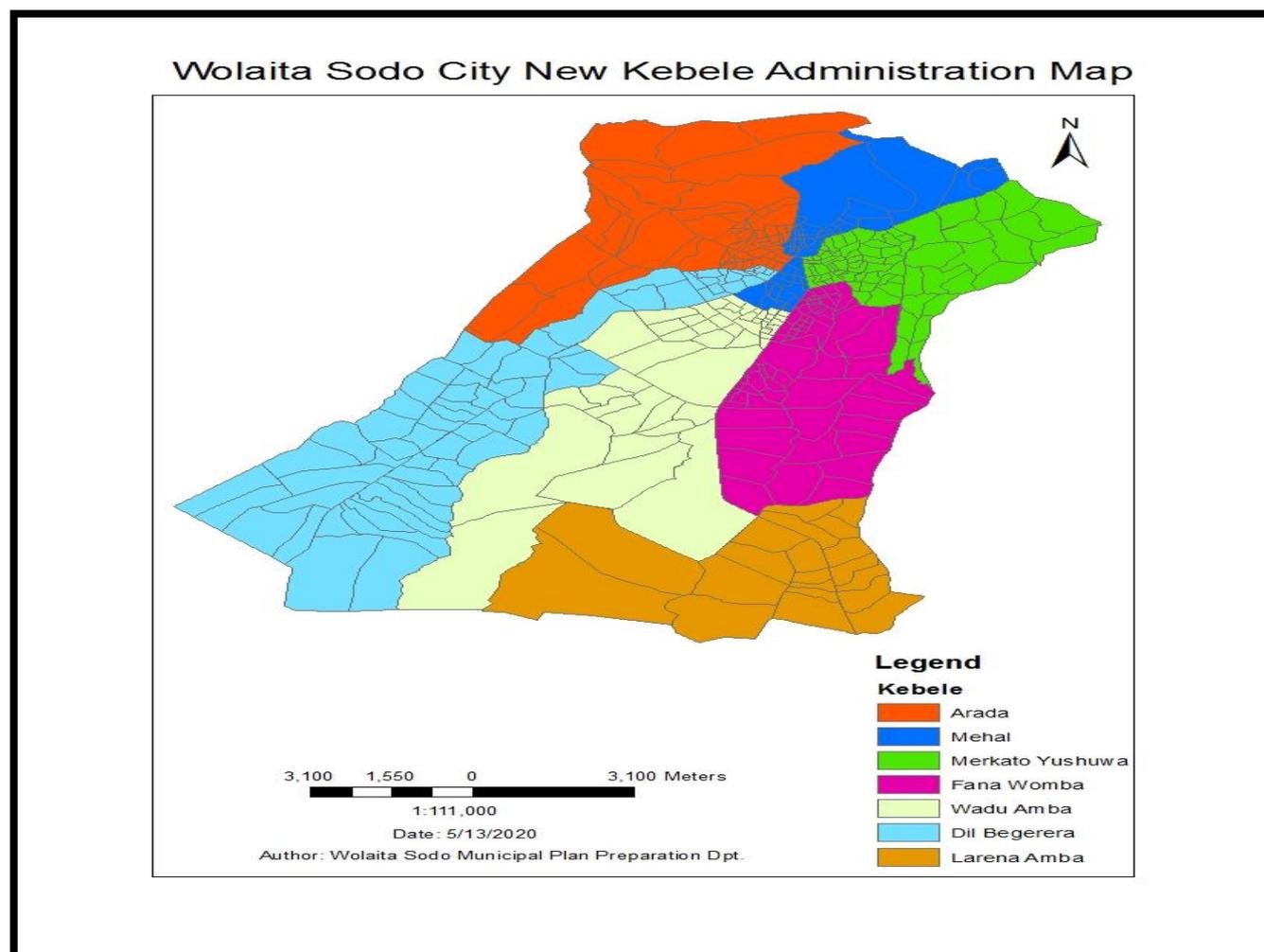


Figure 1: Map of the Wolaita Sodo City
Source: Sodo Town Municipality Office (2013)

Research Design

The study's primary focus was on describing information related to saving urban households by collecting cross-sectional data from the study area. So, the research method used for the study was descriptive research design to answer research questions. Moreover, the Binary logistic regression model was applied for independent or explanatory variables, which will significantly affect urban households' saving status.

Data Source

The study was used in both primary and secondary source of data. The primary source of data was derived from the answers that respondents were given in the interview schedule. The primary data source was used to obtain information related to the households' demographic characteristics and forms of savings used by urban households.

The interview schedule was used as a data collection method for the two objectives to collect quantitative data, whereas the Focus Group Discussion was conducted to collect qualitative data.

The Focus Group Discussion was used to obtain additional qualitative information on factors affecting urban households saving besides the interview schedule's data.

The researcher was administered the focus group discussion by telling the study's objectives and asking permission from financial institutions. On the other hand, secondary data was derived from the findings stated in published and unpublished documents and works of literature related to the research problem. It was taken from the recent literatures such as; articles, journals, reports, working papers, books, and internet sources related to urban households savings. Information related to factors influencing urban households' savings was collected from secondary sources of data.

Sample Size Determination

This study was conducted at the household level; i.e. the unit of analysis was household. The sampling frame or the total population from which the required number of sample drawn was the total number of households found at four kebeles, a total of 240 respondents were surveyed.

This 240, the sample is determined using the minimum sample size formula $n_r = \left(\frac{1.88}{d^2}\right)^2 pq$1

Sampling Technique

In the study area, the household is responsible for making day to day decision on their activities. Thus, households were the basic units of the sample. Multi-stage sampling techniques were used to generate the required primary data. At the first stage, Sodo town was selected purposively.

In the second stage, out of 4 Kebeles within the Town, four Kebeles were selected by random sampling techniques. A probability proportionate size technique(s) was employed to determine sample size from each Kebele, and finally, 240 households were selected using systematic random sampling.



Method of Data Analysis

The tools for quantitative data analysis were descriptive statistics. Percentages, frequencies, mean and standard deviation were employed for demographic variables and objective one. The chi-square test was used to identify the relationship between urban households' saving status and dummy independent variables. The t-test was used to test the differences between urban households' saving status and continuous independent variables. Moreover, Binary logistic regression analysis was applied for identifying significant factors affecting urban households saving. The qualitative data which was gathered through Focus Group Discussion was analyzed through narration and description.

Two types of data analysis, namely descriptive statistics and econometrics models, were used to analyze the households' data. Quantitative categorical kinds of data were analyzed using percentage, frequency. Simultaneously, continuous quantitative types of variables were minimum, maximum, mean and standard deviation. After computing the descriptive statistics, Binary logistic regression was used to identify household savings determinants where the dependent variable was found to be a binary outcome.

The data analysis was conducted using the statistical package that is STATA 11.

Table 1: Number of Kebeles with their total Population and their sampled Households

S. No.	Name of the Kebeles	Total Population	Total Household	Proportion	Sample Household
1	Wadu Amaba	25264	5156	0.175	42
2	Dil Begerera	33397	6816	0.231	55
3	Arada	58757	11991	0.408	98
4	Merkato Yushuwa	26803	5470	0.186	45
Total		144,221	29,433	1	240

Binary Logit Model Specification

Logistic regression analysis examines various factors on a dichotomous outcome by estimating the events' probability. The logit model was used when the dependent variable is binary (also called dummy) which takes values 0 or 1. It is a non-linear regression model that forces the output (predicted value) to be either 0 or 1. This model's parameters were estimated using the maximum likelihood estimation rather than the movement estimation in which Ordinary least square regression technique relies on.

The logit method gives parameter estimates that are asymptotically efficient and consistent. Indeed, the logit approach is known to produce statistically sound results (Gujarati, 2004). The logit model usually takes two forms. It may be expressed in terms of logit or terms of event probability. When described in logit form, the model is specified as



$$\log\left(\frac{p(y=1)}{1-p(y=1)}\right) = \sum_{k=1}^k B_K X_K \dots \dots \dots 1$$

This particular study deal about the probability to save or not and this expressed in mathematical form as follows

$$Pr(y=\frac{1}{x}) = pr(y = 1) = \frac{e^{\sum_{k=1}^k B_K X_K}}{1 + e^{\sum_{k=1}^k B_K X_K}} \dots \dots \dots 2$$

The above equation represents the probability of an event occurring. For a non-event, the probability is just 1 minus the event probability.

$$pr\left(y = \frac{1}{x}\right) = pr(y = 0) = \frac{e^{-\sum_{k=1}^k B_K X_K}}{1 + e^{-\sum_{k=1}^k B_K X_K}} \dots \dots \dots 3$$

The equation is of the form:

$$y_i = \alpha + \beta_1 x_1 + \beta_2 x_2 + \dots \beta_k x_k + \varepsilon \dots \dots \dots 4$$

Where;

y_i = probability of household to save in financial institutions

α = Intercept (constant) term

β_k =Coefficient of the explanatory variable

x_k = Explanatory variables

ε = Disturbance (Stochastic) term.

Logit model estimates the probability of the dependent variable to be 1 ($y=1$). This is the probability that some event happens. The logit model usually takes two forms. It may be expressed in terms of logit or terms of event probability.

Description of the Variables used in the Binary Logit Model and their hypothesis

Dependent Variable: Urban households' Savings Status

The dependent variable has a dichotomous nature measuring urban households' savings status informal financial institutions in 2019/2020. This is to distinguish or discriminate between those savers and non-savers in the study area. It takes a value of 1 if the households save informal financial institutions otherwise 0.

The Explanatory Variables are:

The study considers independent variables that include; education level, sex, age, marital status, family size, annual income, annual expenditure, market distance, distance from financial institutions, access to credit, transactional costs and interest rate) and were defined and hypothesized as follows.

Marital status (MARTS): it is a dummy variable and takes a value of 1 if they are married, 0 if they are single. Marital status has also been shown to affect asset accumulation (Grinstein- Weiss *et al.*, 2006). Historically, marriage has been viewed as a source of financial security and a determining factor for economic well-being.



Education level (EDUL): it is a dummy variable, and 1 is assigned for literate, 0 for illiterate. Education affects saving performance by influencing the level of saving and asset accumulation options available to the household. Kulikov *et al.* (2007) found that education as a human wealth promotes household saving. Therefore, it was expected that households with a higher probability of saving households positively affected literate households.

Age (AGE): it is a continuous variable, defined as the household heads age at the time of the study measured in years. Rehman *et al.* (2010) found that age has a positive relationship with household savings. The life-cycle hypothesis suggests that there exists a relationship between age and saving rates. When the age of the households increases their saving status going decreases. Therefore, the expected effect of age on urban households saving was negative

Family Size of the household (FAMSIZE): this is a continuous variable measured by numbers, and it refers to the total number of family members of the household. A household with a high number of dependents in the family has fewer savings. Rehman *et al.* (2010) found that family size significantly and inversely affecting household saving. The expected effect of family size on urban household saving was negative for households with large family sizes.

Sex (SEX): it is a dummy variable that assumes a value of "1" if the head of the household is male, "0" if they are female. Several studies have shown that sex affects asset accumulation. In Sub-Saharan Africa, women own fewer assets than men (LeBeau *et al.*, 2004). In urban SSA, women's ability to accumulate assets is governed by family and community norms, which historically have favoured men to women's disadvantage. Gedela (2012) found that male-headed households save more than female-headed households. The expected effect of sex on female-headed households was negative.

Market distance (DISTMKT): Here it is assumed to capture the effect of walking distance to the main market centre from home measured in kilometres. Better access to roads expands output markets besides because as farmers locate far from the market, there is limited access to input and output markets and market information. Moreover, distance to market leads to higher transaction cost, which reduces the benefits accrue to the households. More importantly, the long distance from the market likely discourages the households from participating in market-oriented production that increases their income and is possible to save in financial institutions (Essa *et al.*, 2012). The expected effect on saving was negative.

Distance from Financial institutions (DISTFIN): it is a continuous variable measured in kilometres. Households near financial institutions have a location advantage and can contact quickly and have more access to information than those who live more distant locations. Chemonics International (2007) identified distance as a significant barrier to formal financial saving and other rural areas' markets. As households are far from formal financial institutions, the expected effect on saving was negative.

Annual Income (ANINC): it is a continuous variable and operationalized as the total annual earnings of a family from sale of agricultural produce, off-farm and non-farm activities. Income level shows that when households' income level increases, the saving rate will also increase by



some presents. Abdelkhale et al. (2009) indicated that income strongly affects the saving level of the household. The expected effect of this variable on urban household saving was positive.

Annual Expenditure (ANEXP): it is a continuous variable which was measured in Birr. It affects urban households from saving negatively. The more the households spend, their saving reduces. Rehman et al. (2010) indicated that expenditure significantly and inversely affecting household saving. The expected effect of expenditure on urban household saving was negative.

Access to Credit (ACCRT): it is a dummy variable that assumes a value of "1" if the household is credit users and "0" otherwise. Some financial institutions like Omo Micro Finance Institution put saving as the primary principle for credit access from their institution. Therefore, this principle helps urban households to improve their saving status. Households with better access to credit tend to save more than households who do not access credit service.

Interest Rate (IR): The percentage of the balance in a deposit account that the savers receive as income from their deposit. It was measured by the sample households earning as interest from their deposit in a year. The interest could encourage or discourage households, which could influence their willingness to save in financial institutions. In most cases, when the interest rate obtained from saving increases, savers are encouraged to save, which has an expected positive effect on households' savings.

Transactional Costs (TC): Transactional costs are the costs that cover a wide range of informational cost, transportation costs, and consumption costs. It is a continuous variable measured in Birr that the savers spent money while they deposit money informal financial institutions at a time. When the transactional cost is high urban households saving will be reduced. Therefore, the expected effect of this variable on urban household saving was negative.

Table 2: Explanatory Variables and their Expected Sign

Types of Variables	Description of the Variables	Measurement	Expected sign
SAVING	Probability of Saving	Dummy (1= saving, 0 = not-saving)	Dependant
AG	Age of the household head	Continuous variable measured in years	-
SEX	Sex of the household head	Dummy(1=male,0=female)	+
FS	Family size of the households	Continuous variable measured in the number	-
MRS	Marital status of household	Dummy(1=married,0=unmarried+ divorced + widowed)	-
EDU	Education of household head	Continuous variable measured in years of schooling	-
DISTFIN	Distance from financial institutions	Continuous measured in KM	-
ANINC	Annual Income	Continuous measured in Birr	+
ANEXP	Annual expenditure	Continuous measured in Birr	-
DISTMKT	Market distance	Continuous measured in KM	-
CRD	Household access to credit	Dummy(1, if the household access credit, 0 otherwise)	+
IR	Interest rate	Continuous variable measured in Birr	+
TC	Transaction Cost	Continuous variable measured in Birr	-

RESULTS AND DISCUSSION

This chapter deals with the results of descriptive statistics and logit regression results of the determinants of households saving. The analysis was done in light of the objectives of the study. Section 4.1 deals with descriptive analysis, and section 4.2 presents the results of the econometric analysis.

DESCRIPTIVE ANALYSIS

Table 3: Age distribution of the respondents

Age	Number of Respondents	Percentage
20-29	51	21.25
30-64	161	67.08
>64	28	11.67
Total	240	100

As the above Table 4.1 indicates, the 51(21.25%) of respondents were under age category 20-29; the 161(67.08%) of respondents were age category 30-64, and 28 (11.67%) of the respondents were age greater than 64. According to table 4.1, most of the respondents were under age category 30 to 64, and their response to saving is highest than the rest of the age category. The adult age can work more hours, and they are more producers rather than the oldest age.

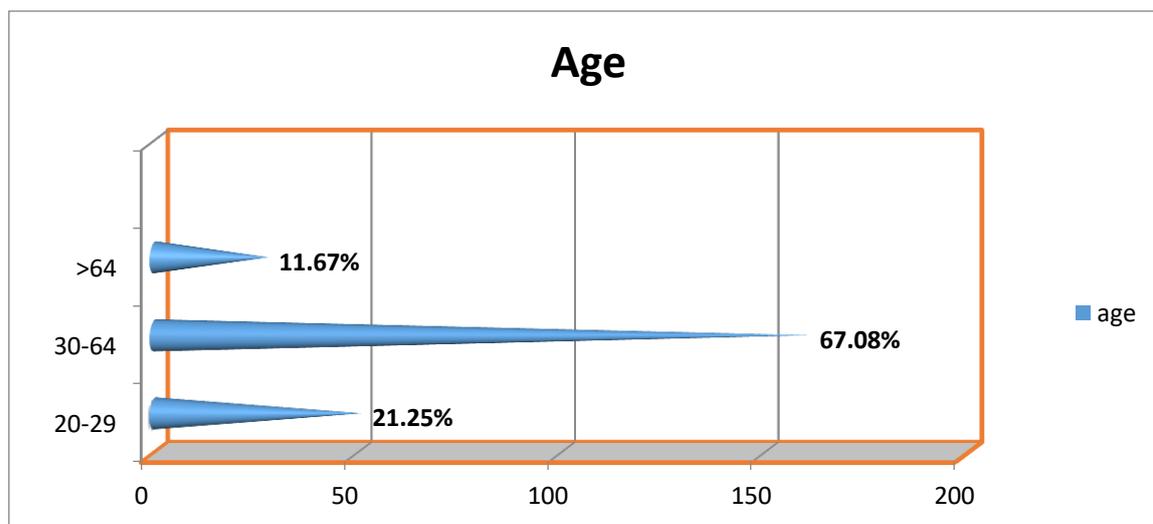


Figure 2: Graph showing the Age Category of the respondents

4.1.2 Education level of respondents

Education level plays a significant role in determining the saving level of households by improving income; by increasing the knowledge of how to use the new technology, how to participate in different income-generating activities, family planning, and improved management of resources. All those are lead to good productivity of the household and can enhance the income level directly related to saving. Due to the lack of access to education, the more significant number of the respondents becomes fewer savers due to poor management of resources, low-income family planning low awareness of the technology. They do not have more knowledge on how to improve



the living quality.

Table 4: The distribution of the respondent's on Education level

Education level	Sample unit	Percentage
Illiterate	19	7.91
Grade 1-8	31	12.91
Grade 9-12	79	32.91
Diploma and above	111	46.27
Total	240	100

Source: own survey 2018

As the above Table 4.2 shows, 19 (7.91%) of the respondents were illiterate, 31(12.91%) of the respondents were completed primary education, 79 (32.91%) of the respondents were completed secondary education and 111 (46.27%) of the respondents' education level diploma and above

According to the table 4.2, the majority of the more significant number of the respondents were educated diploma, and above the level at the same time, their response to saving is highest than other education categories, when we see the illiterate household's response to saving is low due to low awareness to lifestyle, living quality, inadequate understanding of how to minimize and how to improve the life quality and increase income and saving by involving in other income-generating activities.

Family size of the respondents

Family size is one of the factors determining the saving level in the study area. Out of 240 households, 32.92% had family size 0 to 3, 58.75% with family size 4 to 6 and the remaining 8.33% family size greater than 6. As the finding shows, households with large family save less than households with a lower number. Households with large family number resulted due to lack of awareness of family planning in the study area. A possible interpretation for the finding is for large family size; it is challenging to feed a large family size by one household head. As a result, their consumption level is greater than saving. Typically, large family size has a significant relationship with lower saving, an increase in the household size; the demand for household consumption increases and at the same time, saving decreases.

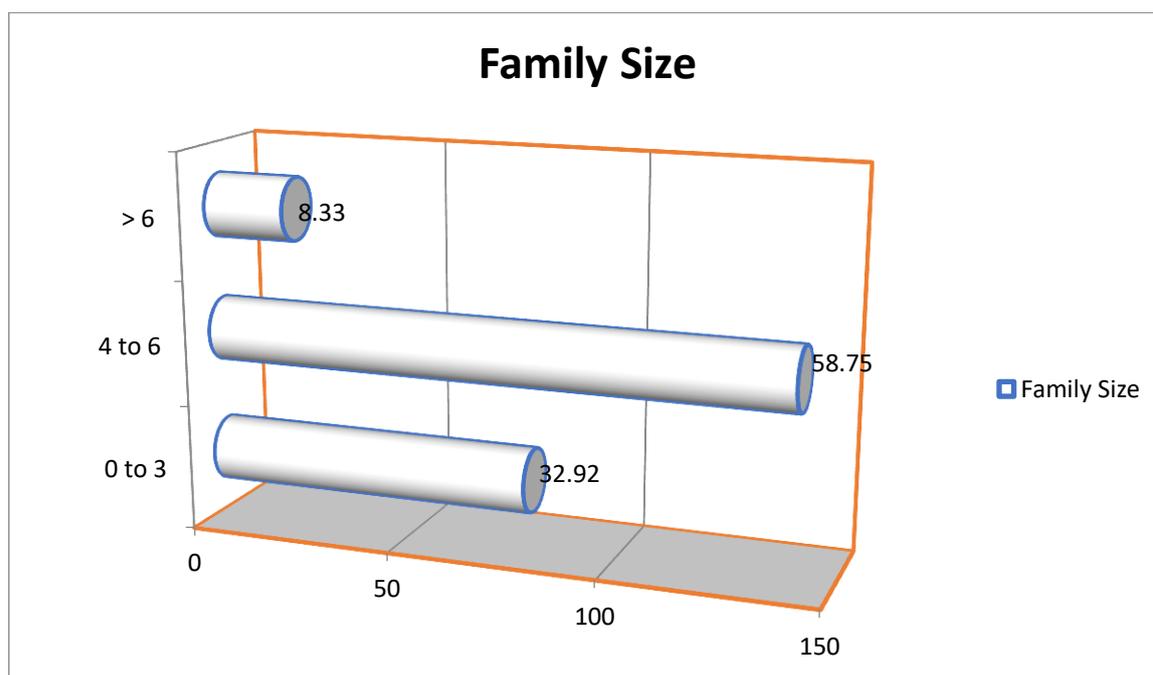


Figure 3 : Diagram showing the Family size of the respondents

Table 5.: Distribution of the respondents on Family size

No. of Family members	Number of Respondents	Percentage
0-3	79	32.92
4-6	141	58.75
Above 6	20	8.33
Total	240	100

Source: own survey 2019

The above table 4.3 shows that 32.92 per cent of respondents have 0 to 3 families in the household, 58.75% respondents have 4-6 families in the household, and 8.33% have above 6members in the household.

According to Table 4.3, most respondents have a large family size 4 to 6 in the household. They are covered by the greater number of the less saviour respondents than households having family size 0 to 3. Contrary to this, households with family size greater than 6 responded that their response to saving is the lowest.



Econometric Analysis

Model Specification

Before regression of the model, the researcher tested model specification test, and model specification error can occur when one or more relevant variables are omitted from the model or one or more irrelevant variables are included in the model. It can substantially affect the estimate of regression coefficients. Moreover, in this study, the model specification error was checked by the **link test**, the test of **hat** and **hatsq** were 0.000 and 0.546, respectively. Therefore, it shows that the **link test** has failed to reject the hypothesis that the model is specified correctly. Accordingly, it seems to us that we don't have a specification error.

In addition to the basic descriptive statistics, the logistic regression model was employed to identify factors affecting household saving in the study area. The variables included in the model were tested for the existence of multi-co linearity if any. **Contingency coefficient** and **variance inflation factor** were used for multi-collinearity test of discrete and continuous variables, respectively.

Contingency coefficient value ranges between 0 and 1. A rule of thumb variable with a contingency coefficient below 0.75 shows a weak association and value above indicates a strong association of variables. The contingency coefficient for the discrete variables included in the model was less than 0.75, suggesting multi-collinearity to be a serious concern. As a standard practice, continuous variable having variance inflation factor of less than 10 are believed to have no multi-collinearity, and those with VIF of above 10 are subjected to the problem and should be excluded from the model (Gujarati, 2004)

To identify the significant factors affecting household saving in Sodo town, the dependent variable, Probability of saving was regressed against various explanatory variables. The regression table revealed that the binary logistic model managed to predict 71 per cent of the responses correctly.

Apart from per cent correct predictions, the model Chi-Square with "n" degrees of freedom and Hosmer and Lemeshow's are used to test the goodness-of-fit test. Accordingly, p-values associated the Chi-Square with 13 degrees of freedom. The value of .0000 indicates that the model is statistically significant, that shows the model fit the data well.

Another commonly used test of model fit is the Hosmer and Lemeshow's goodness-of-fit test. The Hosmer-Lemeshow goodness-of-fit statistic is computed as the Pearson chi-square from the contingency table of observed frequencies and expected frequencies. Like a two-way table test, a good fit as measured by Hosmer and Lemeshow's test yields a large p-value. Therefore in this study, the test result shows that $p=1$ suggests that the model was correctly fitted with the data. Robust logistic regression was used to control for heteroscedasticity in binary outcome models. Heteroscedasticity in binary outcome models will affect both the "Betas" and their standard errors (Wooldridge, 2001). In this particular study, both regression, i.e. earlier regression and robust logistic regression, have the same result. None of the coefficients changed, but the standard errors and Z values are a little different. Had there been more heteroscedasticity in these data, would have probably seen the more significant change. Therefore this model is free from heteroscedasticity

become unemployed and have a low payment rate. Therefore, additional household member shares the limited resources that lead the household to save less.

Households Education level and the probability of Saving

Household head education level is one of the factors affecting saving level in this study. The result shows that the variable statistically significant at 1 per cent and positively related as it was expected. *Holding other the model variables at their mean value, increasing education by one unit (one more grade) leads to an odds ratio favouring the probability of saving increase at about 2.07. The possible explanation for this result is education level of the households enhance the capacity to capture technology, and it may help to use improved inputs for its income generation practices and at the same time when income increases peoples saving also increases.*

Distance from the market and the probability of Saving

The survey results revealed that the variable under consideration is negatively related and significant at less than 10% with a probability of saving. Holding other things constant, a unit increases in hours spent to distance from the nearest market odds ratio favouring the household's likelihood to save decrease by about 0.38. The possible explanation is that access to markets allows the household to be involved in other income-generating activities to enhance saving. It will also enable selling their assets/what they have/ with the fair price.

Sex and probability of Saving

In this study, sex was one of the factors determining the households saving level. The variable is positively related and statistically different from zero at less than 5% level as it was expected. Holding other variables constant at their mean level, when a unit increases in interest rate odds ratio favouring probability saving increase by a factor of 2.22. The possible explanation for this finding is when the household is headed by male engagement in different activities, increasing their saving level.

Interest rate and the probability of Saving

In this study, the annual interest rate was one of the factors determining the households saving level. The variable is positively related and statistically different from zero at less than 10% level as it was expected. Holding other variables constant at their mean level, when a unit increases in interest rate odds ratio favouring probability saving increase at about 2.06. The possible explanation for this finding is when the interest rate for saving increases people's motivation to consume and increase their saving level.

Transactional costs and the probability of Saving

In this study, the transactional costs are considered as one of the determinants of saving level. The finding of this study shows that transaction cost was negatively related, and the coefficient of the variable is statistically different from zero at 1 per cent. Holding other variables constant at their mean level, when a unit increases transaction cost odds ratio favouring the probability of saving decrease at about 0.2549. The finding was because when the transactional cost is high urban households saving will be reduced.



Credit access and the probability of Saving level

One of the model variables in this study is access to credit to households. The variable is positively related and statistically different from zero at the 1 per cent level as it was hypothesised. Holding other variables constant at their mean value, when access to credit change from no access to access odds ratio favouring the probability of saving increases at about 12.70. The result was due to the fact that access to credit can increase an opportunity to invest and participate in a different income-generating activity which can enhance income and saving level at the same time.

Annual income and probability of Saving

The household's annual income was positively related, and the variable is significantly different from zero at 1 per cent level. Other things remain constant when the household's annual income increases by a unit the odds ratio in favor of the probability of saving increase at about 4.27. This is due to the fact that when income rises, peoples saving increase.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary and Conclusion

The study was conducted to identify factors affecting urban households saving in Sodo town. Data for the research was collected from 240 urban households from four villages. To attain the study's stated objectives, we have used different data analysis methods, i.e. descriptive analysis and econometric analysis to identify independent variables' effect on the independent variable. With descriptive percentages, graphs, charts and tables were presented factors affecting household saving.

The result shows that 51(21.25%) of respondents were under age category 20-29; the 161(67.08%) of respondents were age category 30-64, and 28(11.67%) of the respondents were age greater than 64. According to table 4.1, most of the respondents were under age category 30 to 64, and their response to saving is highest than the rest of the age category.

Out of 240 households, 32.92% were with family size 0 to 3, 58.75% household's family size 4 to 6 and the remaining 8.33% household's family size greater than 6. Typically, large family size has a significant relationship with lower saving, an increase in the household size; the demand for household consumption increases and at the same time, saving decreases.

The finding of this study shows 19(7.91%) of the respondents were illiterate, 31(12.91%) of the respondents were completed primary education, 79(32.91%) of the respondents were completed secondary education and 111(46.27%) of the respondents' education level diploma and above. The majority of the respondents have an educated diploma and above level while their response to saving is highest than other education categories.

In logistic regression analyses, the variables positively related to the probability of saving are household head age, sex, marital status, household education, credit, annual income and interest rate. The variables that are negatively correlated with the probability of saving are family size, distance from the financial institution, distance from market, annual expenditure, and transaction cost.



From 12 explanatory variables, 8 of the variables: family size of the household, distance from the market, annual expenditure, transaction cost, household education level, credit access, annual income and interest rate have a significant effect on the rural households saving at the significance level at 1 per cent, 5 per cent and 10 per cent.

Recommendations

As a result, the following policy recommendations were made.

- Family planning and related measures should be taken to limit household family size.
- Access to education is positively correlated with household saving in the study area. It helps people be capacitated and empower human capital and gives more significant opportunities to earn income. This, in turn, increases saving. Therefore the government should expand education services.
- Access to credit is also positively correlated with household saving in the study area. It helps households improve their participation in different activities, increase productivity, create the job, and smooth consumption flows. Still, with a prior saving used as a prerequisite to qualify for credit in the form of group lending hinders credit access to households with lower income in the area. However, respondents find group lending inconvenient to access credit from MFI since they are rejected from the group by better offs on the one hand and the prerequisite saving requirement on the other. Therefore, accommodative credit policy should be employed; meaning that MFIs and other development agencies need to introduce credit policies targeting poorest of the poor.
- Market access improves households' probability of households saving and can enhance households' ability to be involved in investment activities; hence, efforts should intensify to create some sort of market in the households' vicinities and improve road and other infrastructure facilities to established markets.

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Conflict of Interests

There was no conflict of interest among all the authors. The manuscript has been prepared with the suggestions of all the authors.

Technical Terms

These words in Ethiopia has special meaning.

Kebele means Village

Woreda means District



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