Utilization of and Factors Affecting Individuals Saving in Ethiopia (The Case of Dire Dawa)

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ABSTRACT

Ethiopia is currently implementing its growth and transformation plan to boost its economic growth overtime with the goal to join the middle income countries within few years. It is believed that this objective can be realized if the country can make substantial amount of investment in the economy. However, currently, much of the capital accumulation is brought about from foreign direct investment. The rate of saving in the country has been low. Heavy reliance on foreign capital may have adverse economic implication for sustainability of economic growth of the country in the future (Dixon and Boswell, 1996). In cognizant of this, this study was undertaken to investigate pattern of individuals' saving utilization using behavioral approach and to assess the role of concerned bodies/organizations in improving household saving; in the case of Dire Dawa City. The mainly used primary survey data on individual employees, and formal and informal financial institutions. Both descriptive and quantitative (probit and tobit econometric regression models) methods were used for the analyses. Findings show that rate of individuals' saving is very low and only small proportion of their existing level of saving is used for investment. Hence, efforts should be exerted to improve the rate of individuals' saving and its utilization for investment. Rise in prices of commodities (especially food items) is one of the main factors negatively affecting individuals' saving, implying that price stability measures should much target on food items, on which much of income of the individuals is spent. The quantitative analysis shows that marriage, use of planning for consumption, higher income earning, and responsibility to help others, and age of individuals can significantly and positively affect the rate of individuals saving. This implies people specially the youth should be encouraged to improve their sense of responsibility (which is reflected by marriage, use of planning and taking care of others) along with improving their means of earnings. Analysis on performance of formal and informal financial institutions indicates that only less

than one third of the employees of the city use banks for deposit and there are serious complaints on the services delivered by the banks. Thus, much is expected from the banks and concerned stakeholders to enhance the use of banks by the people through improvement of quality of their services. The study revealed that huge amount of money exists under informal institutions like "Idirs" which could be converted into investment and capital formation although only small percentage of this potential capital is invested on business activities to date. Thus, concerned bodies should create mechanisms by which this potential is exploited for business investments.

INTRODUCION

Ethiopia implemented the first Growth and Transformation Plan (GTP) since 2010/11 to enhance the rate of growth of the economy and become a middle income county by 2025. GTP 1 targeted to double the size of the economy or GDP within five years and reduce the level of poverty (FDRE, 2010).

This requires relevant development policies and resources. Among the crucial factors of economic growth and development, adequate domestic and external resource mobilization was found to be the major one (FDRE, 2010). Domestic resource utilization, probably related with the domestic saving of the nation, is recognized as the most basic macroeconomic variables (Pahlavani et al, 2006).

The Ethiopian rate of national saving particularly the individual saving is expected to be very low and this low level of national saving is expected to limit the expected rate of economic growth of the economy. According to Ministry of Finance and Economic Development (2010), one of the major challenges encountered in the past five years of PASDEP implementation is low level of domestic savings to support the huge demand of the country's investment for accelerating growth and development in the process of eradicating poverty. The national saving was 9% of GDP at the beginning of the growth and transformation plan in 2010/11. Because of the low level of saving, the national investment of the Ethiopia is dependent on foreign direct investment rather than domestic investment. Though, foreign direct investment has paramount importance on Ethiopian economic growth and development, its importance is less than the domestic investment.

According to Harrod - Domar growth model, with insignificant domestic saving, a country should look for foreign aids and debt (Todaro, 2000). In fact, the rate of domestic saving in developing countries including Ethiopia is believed to be insignificant. However, reliance on foreign aid and debt is not always imperative due to different socio-economic and political reasons. Therefore, it is believed that the pattern of domestic saving, particularly individuals' saving, in the country should change if higher rate of saving is required.

Improvement in individuals' saving behavior is believed to be a crucial element for economic growth. This is more fruitful if channeled to investment. In the process of channeling the domestic saving for investment, the role of financial institutions is valuable. According to Bairamli and Kostoglou (2010), strong financial institutions facilitate the flow of funds from savings to investments. They found that, even though the saving rate of Republic of Azerbaijan was high, due to the insufficient financial institutions, the high saving was not channeled to investment and this has retarded economic growth of the country. According to institutional saving theory, the poor can save with institutional supports (Sherraden, 1991). Institutional features include access, information, incentives, facilitation, expectations, restrictions, and security (Beverly & Sherraden, 1999; Sherraden & Barr, 2005; Schreiner & Sherraden, 2007)

To this end, policy makers and concerned groups should exercise appropriate interventions for achievement of the goal of increasing individual saving. In consideration of this, these groups are expected to require reliable information regarding the existing situation pertinent to saving behavior of individuals as well as the existing role of concerned organs. However, there are no, yet, such studies undertaken related to saving, at household and individual level, in Ethiopia. The studies that have been undertaken so far usually focus on analysis of national saving at macroeconomic level.

Therefore, this study was undertaken to address those important aspects of saving empirically, using behavioral approach of individuals and households, taking the case in the city of Dire Dawa. The study investigated the existing saving behavior of individuals and possibilities of investment, the major possible factors which are expected to influence individuals saving and the role of concerned bodies in mobilizing saving and investment. Basic research questions of this study include:

i.   How does the existing extent of individuals saving look like?
ii.   To what extent do individuals make saving for investment?
iii. How are individuals' savings being utilized?
iv.   What are the major determinants of individuals saving?
v.   What are the major challenges retarding the level of saving?
vi.   To what extent do concerned bodies facilitate saving mobilization and investment?

The general objective of this study is to investigate the existing saving behavior of individual and the role of concerned bodies to mobilize saving and investment in the city of Dire Dawa City. Specifically, this study attempted:

    i. To explore the extent of individual saving and its utilization in the city

    ii. To identify the major determinants and challenges of the individuals' saving in the city

    iii. To assess the role of concerned bodies/organizations (such as formal and informal financial institutions) in improving the individual saving and its utilization in the city

METHODOLOGY

Source & Type of Data

The data used for this study are both from primary and secondary sources. The primary source of data involves surveys conducted on sample of employed individuals, private banks, and informal financial institutions (Idirs), found in the city of Dire Dawa. This primary data is cross-sectional type which includes both qualitative and quantitative information. The secondary data source includes published & unpublished documents, internal reports, scientific journals, proceedings, books and literatures related to the inquiry.

Sampling Technique

As indicated above, the primary data was collected from surveys conducted on sample of employed individuals, private banks and informal financial institutions (Idirs). The employed individuals were selected in such a way that the total population was first divided into four strata (including government employees; private and self-employed; NGO employees; and domestic employees). In order to reach the possible respondents of each stratum, purposive sampling was used thereby a total of 435 employed individuals were selected. Table 1 and table 2 show the total population and the number of selected sample individuals from each stratum.

Table 1: Paid Employees in Urban Area of Dire Dawa Aged more than Ten years, 2010

Government employees	Self-employed and private employees	NGO and other employees	Domestic employees	Grand Total
14,462	16,401	1,878	5,125	37,866

Source: Compiled from CSA, 2010

Table 2: Sample of the Employees Excluding from each Stratum

Government employees	Self-employed and private employees	NGO and other employees	Domestic employees	Total
166	188	22	59	435

Source: Own computation, 2014

Here, we have to note that the samples were selected from each stratum as proportional as possible with reference to the population of employed people under each stratum as of the report of Central Statistical Agency (2010).

As this study also considers the performance of financial institutions as a means to utilize households' savings, 15 branches of private banks (from which 5 individuals were selected from each bank) as well as 40 informal institutions (Idirs) were selected from all the 9 kebelles of the city administration with the guidance of the kebelle elites.

Methods of Data Collection

Since this study is expected to involve broader survey, the appropriate way of data collection from the households was to use questionnaires which were distributed to all sample respondents of selected employees; employees of the selected banks; and representatives of the informal financial institutions (Idirs). This was carried out through recruited enumerators. In addition, personal interview and observation methods were also used to cross check information.

Methods of Data Analyses

The methods of analysis used in this study are specified in line with each specific objective of the inquiry. Accordingly, methods of analysis of this study are categorically stated as shown below.

Measurement of the rate of saving of the households and utilization of savings

To measure the extent of the rate of saving of the households, quantitative and qualitative methods of analysis were used through employment of simple statistical tools such as percentages, measures of central tendencies, and pie charts. This part deals with extent of individuals' saving, attitudes of individuals towards saving, means of spending of individuals and utilization of the existing level of the individuals.

Specific to analysis of individuals' saving, the mean monthly saving rate of each sample individuals was taken into account so as to arrive at the aggregate average monthly rate of saving of the households. Attitude of individuals' saving, means of individuals spending, and utilization of savings of the individuals were assessed using qualitative data and descriptive ways of analysis making use of well-designed questionnaires through employment of the aforementioned simple statistical tools.

Identifying determinants and challenges of individuals' saving

The major determinants of the households' saving were primarily figured out using quantitative way of analysis. Descriptive way of analysis was also used to explain the major challenges facing individuals saving with possible justifications. With regard to the quantitative way of analysis, limited-continuous dependent model of econometric regression was applied. Specifically, Tobit econometric regression model was used taking the rate of mean monthly saving of individuals as dependent variable whereas the major possible factors which are expected to influence the rate of saving of the individuals were taken as regressors (independent) variables of the mode[1]l.

The justification to use this model is that the dependent variable is expected to be censored type which is partly discrete and partly continuous. It is discrete in terms of the two categories of households – who save and who do not save. It is continuous in terms of the categories of households who save with continuously different level of saving. Accordingly, the dependent variable is stated as:

$$y_i = 0 \quad \text{or} \quad y_i > 0 \tag{1}$$

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[1] Binary (Probit) econometric regression was also used as an additional tool of analysis to show the major determinants of individuals' saving.

Where: y_i is the rate of saving of household i

For $y_i > 0$, the dependent variable is continuous

Functional specification of the Tobit regression

Given the existence of individuals 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*   if y* > 0 or if the saving rate is positive

y = 0   if y* ≤ 0 or if the saving rate is zero or negative

So, if a household has zero or negative saving rate, y*, y = 0. In essence, this gives us the standard tobit model, which we formalize as follows.

$$y_i^* = x_i B + e_i \qquad i = 1, 2, \ldots\ldots\ldots, N \qquad (2)$$

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

$$y_i = 0 \qquad \text{if } y_i^* \leq 0 \qquad \text{(Verbeek, 2004)}$$

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 zeros. That is, observations are censored (from below) at zero. The model thus describes two things.

One is the probability that $y_i = 0$ (given x_i), given by:

$$P\{y_i = 0\} = P\{y_i^* \leq 0\} = P\{e_i \leq -x_i'B\}$$

$$= P\{e_i / \sigma \leq -x_i'B/\sigma\} = \phi(-x_i'B/\sigma) = 1 - \phi(x_i'B/\sigma) \qquad (3)$$

The other is the distribution of y_i given that it is positive. This is a truncated normal distribution with expectation:

$$E\{y_i / y_i > 0\} = x_i'B + E\{e_i / e_i > -x_i'B\} = x_i'B + \sigma\{\phi(x_i'B/\sigma)\}/\{\phi(x_i'B/\sigma)\} \qquad (4)$$

Table 3: Description of variables in the model

Name of the variable	Type of the variable	Description	Expected relationship with the dependent variable
Probability to save/Percentage of average monthly saving **(Dependent Variable)**	Continuous (but censored)	This variable has feature of being categorical (in the sense of +ve and 0 or –ve rate of saving) and continuous (in terms of level of rate of saving)	----------------
Sex	Dummy	0 for female and 1 for male	Females are expected to save more (Mayoux, n.d.). Because they are more responsible for family affairs than males.
Marital status	Categorical	1 for married, 2 for single, 3 for divorced and 4 for widowed.	Marriage is expected to increase rate of saving because of scale advantage in the use of assets at household level (Lupton and Smith, 1999)
Age	Continuous	Continuous	Higher age enables to save more due to more experience of work and better earning; except for the retired[2]
Education	Ranked	Has 7 categories level of education, ranked.	As the level of education increases rate of saving is expected to increase
Occupation	Categorical	1 for government, 2 for private, 3 for NGO, 4 for self-employed and 5 for domestic employees, categorically	
Respondent's use of planning for	Dummy	1 for who use planning and 0 for who do not use planning for consumption	Use of planning for consumption is expected to increase saving
Where to get meal	Categorical	1 for who cook at home, 2 for who use restaurants and 3 who use both	Cooking at home is expected to increase saving
Dependency on income	Dummy	1 for who help others and 0 for who do not help others	Dependency is expected to decrease saving
Work experience	Continuous	Continuous	Saving is expected to increase with work experience
Average monthly income	Continuous	Continuous	Saving is expected to increase with income
Expenditure on stimulants	Continuous	Continuous	Increase in expenditure on stimulants is expected to reduce saving

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[2] In this study retired old people were not considered; as the study focuses on only the employed group

The role of concerned bodies to mobilize households' saving

The role of bodies which are expected to mobilize households' savings was assessed using descriptive way of analysis. These bodies include formal financial institutions such as banks, micro finance institution etc; and informal and traditional institutions like "Idirs". The performance of these institutions to mobilize the households' savings was assessed using a well-designed questionnaire. This was assessed making use of responses of the sample respondents and secondary data extracted from these institutions. This part deals with the extent of the sample households using these institutions; effectiveness of their modes of mobilizing the households' saving; the extent of their outreach to individuals of the city and the major problems encountered during their operation of dealing with households saving.

RESULTS AND DISCUSSION

Extent of Individuals' Saving and its Utilization

Extent of Individuals' Saving

Table 4 shows summary of percentage rate of saving of the 453 sample individuals. The table indicates that aggregate/mean monthly saving of the sample individuals is about 11% of their monthly income, on average. This rate of saving seems to be much lower than rate of individuals' saving in other fastest growing economies like China where individuals are able to save about 50% of their monthly income (WDI, as cited in Befekadu, 2011).

The table indicates only 62% (271) of the total sample individuals save. More than one third of the individuals 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 individuals (who save) becomes about 17% of their monthly income. Even this is far below that of the case in countries such as China.

Table 4: Summary of rate of individuals saving

Respondents	Number	Percentage	Average rate of monthly saving
Having positive rate of saving	271	62	17.22
With no positive rate of saving	164	38	0
Aggregate average rate of monthly saving			10.73

Source: Own computation, 2014

It may also be important to see how the trend of individuals' saving behaves so as to analyze whether there are changes or improvements in the individuals' saving, over time. In consideration of this, the respondents were asked to mention how their monthly rate of saving is characterized (whether it increased, decreased or remaining the same), since for the last 5 years until the current period. In this regard, of the total sample individuals (435), 371 reported about the pattern of their rate of saving. The rest have had work experience of less than 5 years. As indicated in Table 5, of 371 sample individuals, 38.8% increased their level and rate of saving. The remaining 21.6% and 39.6% reported that their rate of saving is stagnant and falling, respectively.

Table 5: Trend of individuals' saving

Trend of rate of saving	Number of respondents	Percentage
Increased	144	38.81
Stagnant	80	21.56
Decreased	147	39.62
Total	**371**	**100**

Source: Own computation, 2014

Those who were able to increase the rate of their monthly saving state the following reasons for the rise in their rate of saving, overtime.

- ✓ Increase in their income through gifts, additional investment, increase in profit, and working overtime,

✓ Reduction in expenditure for some purposes such as children's education,

✓ Change in consumption pattern (reducing use of restaurants and reducing/avoiding use of addictive stimulants).

On the other hand, those who reported that their rate of saving is falling/remaining stagnant state the following reasons for the fall and stagnation of the rate of their monthly saving, through time.

✓ High price of commodities and high expenditure on utilities,

✓ Stagnant level of income,

✓ Temporary loss of job in the min time within the specified period

✓ Use of more addictive stimulants,

✓ Increase in size of the family, and

✓ Facing additional expenditures such as cost of education.

Individuals' Attitude of Saving and Plan of Consumption

It is likely that individuals' attitude towards saving and their consciousness to use planning for their consumption are among the most important factors for individuals' rate of saving. In consideration of this, the sample respondents were asked to report about their attitude towards saving and their application of planning for consumption. In this regard, 424 of the total sample respondents were willing to provide their response. Of these individuals, Table 6 shows that, about 88% (374) have good attitude towards saving. The rest (about 12%) have pessimistic view towards saving for the following reasons.

• Lack of ability and habit of saving due to insufficiency of income

• Superiority of purchase of assets: These respondents state that saving in terms of money is much risky than purchase of assets due to the inflationary situation. In addition, return (interest) on saving is reported to be lower.

• Lack of awareness and reluctance

• Uncertainty about the future and pessimistic belief

Table 6: Attitude towards saving and use of planning for consumption

Respondents'	Good		Not good		Use planning		Do not use planning	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Attitude towards saving	374	88	50	12				
Use of planning for consumption					327	76	106	24

Source: Own computation, 2014

With regard to the application of the use of planning for consumption, 433 of the sample respondents have given their information. Of these, Table 6 indicates that, about 76% use planning for their daily consumption. The rest 24% reported that they do not have the culture to use planning for their daily consumption.

Features of Spending of Individuals

In order to have a clear picture of feature of individuals saving thereby creating enabling environment for policy formulation, it seems crucial to investigate the proportion of spending made on different possible means of spending. To this end, the average spending of the sample individuals on each means of spending was analyzed. This is presented using table 7 and Figure 1. The table indicates that the major expected types of means of expenditure include spending for daily meal, use of stimulants, recreation, helping others, education, transportation, house rent, cosmetics, purchase of fixed assets, health, utilities, clothing, and others.

As indicated in the table, the total average monthly expenditure of the sample individuals is 3442.45 birrs. Of this, 27.1% (i.e. 934.35 birr) is spent on daily meal, which is the largest proportion of means of spending. In other words, spending on daily meal is more than one-fourth of the total spending of the individuals. This is said to be the characteristics of spending pattern of people in economically poor countries (Zhu, 2008 cited in Jema *et al*, 2011).

The rest means of spending have share of 72.9%, together. These are ranked from 2nd to 13th as: spending for stimulants and recreation, to help others, house rent, fixed assets, education, recreation, others, clothing, transportation, stimulants, utilities, health, and cosmetics. This may reveal that daily meal is the most important means of spending which can significantly affect the extent of saving of individuals. This implies an alteration in amount of spending for daily meal is likely to affect the extent of individuals saving, significantly.

Table 7: Average expenditure on each category of means of spending

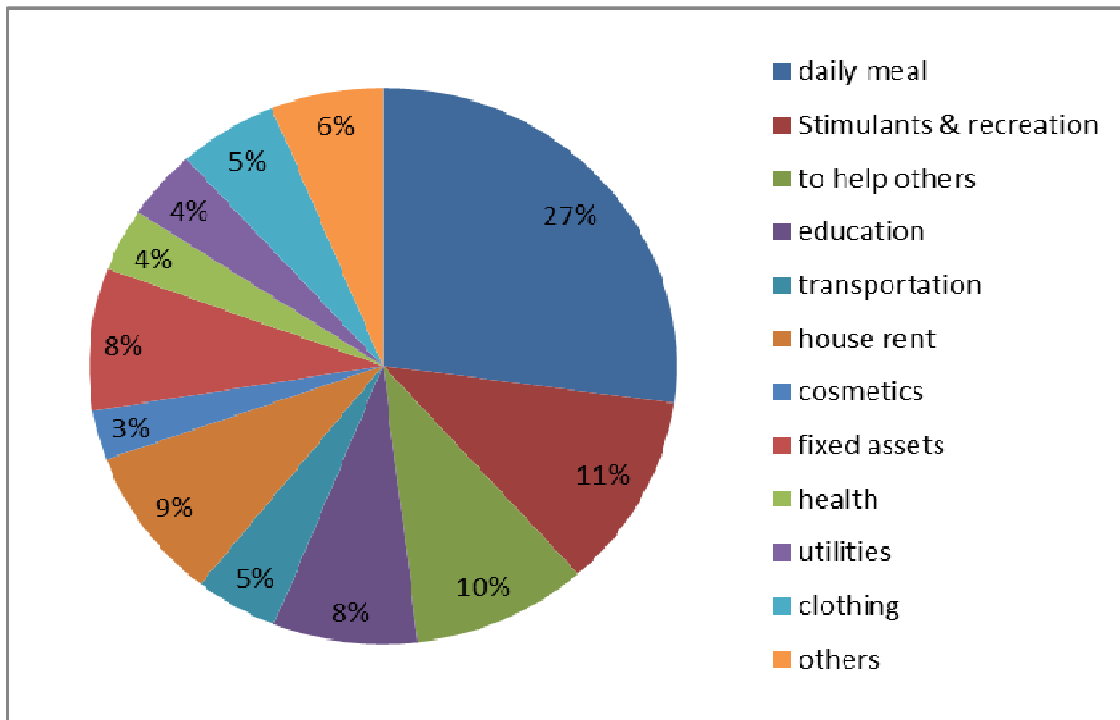| Means of spending	daily meal	Stimulants & recreation	to help others	education	transportation	house rent	cosmetics	fixed assets	health	utilities	clothing	others	total
Birr spent	934.35	389.08	332.17	273.66	159.10	305.89	98.77	283.90	125.30	138.74	188.99	212.50	3442.45
Percentage	27.1	11.3	9.7	7.9	4.6	8.9	2.9	8.3	3.6	4	5.5	6.2	100
Rank	1	2	3	6	9	4	12	5	11	10	8	7	

Source: Own computation, 2014

Figure 1: Average expenditure on each category of means of spending

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Individuals Saving Utilization

Theoretically, it is expected that economic growth is highly related to the rate of saving of the economy. The intuition is that saving is believed to be identical to investment; and investment is the major engine of economic growth. However, practically, savings of individuals may not be directly utilized for investment; rather individuals may allocate their savings for some other purposes such as purchase of furniture, marriage, future consumption etc. Hence, it seems important to see the extent to which the individuals use their savings for future investment. Table 8 shows the proportion of sample individuals who utilize their savings for investment.

The table shows that, of the total sample of 271 individuals who are able to save some proportion of their monthly income, only about 26% (71 individuals) have stated that they have the tendency to use their saving for investment. The rest 74% of the sample individuals want to use their saving for some other purposes which were explained above. Consequently, it is possible to conclude that there is very little habit of use of saving for investment.

Table 8: Utilization of saving for investment and habit of using banks for saving

Measurement	Use of saving		Total	Make saving		Total
	For investment	**Not for investment**		**Using banks**	**Not using banks**	
Number	71	200	271	180	91	271
Percentage	26.2	73.8	100	66.42	33.58	100

Source: Own computation, 2014

On the other hand, in case the individuals keep their savings in banks (for any purpose in the future), there is higher possibility of utilizing the savings for investments, indirectly by other investors who borrow money from banks for investment. Taking this into consideration, the habit of using banks for saving by the sample individuals is presented using table 8. Table 8 also shows that of the 271 sample individuals who have positive rate of saving, about 66% use banks. This shows that even if majority of the sampled respondents prefer banks to save their money, about one-third of the sample individuals do not use banks. The major reasons, according to the

explanation of these respondents, for not using banks are lack of awareness, absence of proximity and delay of the payment system.

The major Determinants and Challenges of the Individuals' Saving

Major Determinants of individuals' saving

In this part, result of econometric regression is presented to show the major significant variables which have significant effect to influence the extent of individuals saving. Binary econometric (Probit) regression was carried out taking the possibility of having positive rate of saving as dependent variable and different explanatory variables which are expected to influence the possibility of saving as independent variables. Table 9 presents the result of the Probit regression.

The table shows that 431 of the sample individuals were considered for this analysis. The variables considered in this regression were found to be jointly significant to influence the possibility of having positive rate of saving, at 1% level of significance, as indicated by chi2 result which is 89.19 (where prob> chi2 = 0.0000).

The individual significance test of the regression shows that only 4 of the 15 stated variables were found to affect the possibility of saving significantly. These include marital status of being married, use of planning for consumption, helping others, and average income, which significantly affect the probability of saving at 10%, 1% 5% and 1% level of significance, respectively. Table 9 shows that marital status of being married, use of planning for consumption, helping others, and average monthly income have a P>Z value of 0.073, 0.002, 0.039, and 0.000, respectively.

All the coefficients of these significant variables are positive implying that they have positive effect on possibility of saving. This implies, marital status of being married, use of planning for consumption, helping other individuals and higher rate of income can increase the probability of saving. The possible justification (for marriage, use of planning for consumption and higher income to increase probability of saving) is that marriage and use of planning for consumption are expected to manage the individuals' income in appropriate manner whereas it is theoretically

justifiable that probability of saving has the tendency to increase as the level of individuals' income increases.

Table 9: Probit regression result:

Dependent variable: The probability to save

Variables	Coefficient	Standard Error	Z-statistic	P-value
Sex	.2064644	.1544091	1.34	0.181
Marital status 1	.5175218	.2950264	1.75	0.079
Marital status 2	.2045752	.3099156	0.66	0.509
Marital status 3	.3922857	.4952763	0.79	0.428
Age	-.0011527	.0138891	-0.08	0.934
Education 1	-.2427575	.2414046	-1.01	0.315
Education 7	.4414543	.3568262	1.24	0.216
Occupation 1	.1603352	.1858918	0.86	0.388
Occupation 2	-.0219955	.1863616	-0.12	0.906
Use of planning	.4914318	.1597614	3.08	0.002
Cooking at home for meal	.1945706	.1824741	1.07	0.286
Helping others	.2986183	.1443351	2.07	0.039
Work experience	.0117284	.0132765	0.88	0.377
Average income	.0001675	.0000458	3.66	0.000
Expenditure on stimulants	-.0000704	.00025	-0.28	0.778
Constant	-1.464899	.6407317	-2.29	0.022

Number of obs   =   431

LR chi2(15)   =   89.19

Prob > chi2   =   0.0000

Pseudo R2   =   0.1558

Source: Own computation, 2014

On the other hand, it is theoretically expected that dependency has the tendency to reduce the possibility to save. But the result of the regression shows that those who help others financially

have greater possibility to save than those who do not have such a burden. The possible explanation for this may be the fact that those who help others are responsible to care for others which leads them to be much conscious and careful about their spending than those who do not face such a burden.

Table 10: Tobit regression result

Dependent variable: The probability to save/percentage of average monthly saving

Variables	Coefficient	dy/dx	Standard Error	Z-statistic	P-value
Sex	2.8807	2.8807	2.231718	1.29	0.197
Marital status 1	12.90686	12.90686	4.703936	2.74	0.006
Marital status 2	8.101927	8.101927	4.918978	1.65	0.100
Marital status 3	7.979568	7.979568	7.531793	1.06	0.290
Age	.3907815	.3907815	.2009979	1.94	0.053
Education 1	-3.772618	-3.772618	3.854272	-0.98	0.328
Education 7	4.245628	4.245628	4.040929	1.05	0.294
Occupation 1	2.607778	2.607778	2.684683	0.97	0.332
Occupation 2	-1.39454	-1.39454	2.743726	-0.51	0.612
Use of planning	5.819024	5.819024	2.555062	2.28	0.023
Cooking at home for meal	2.792597	2.792597	2.792078	1.00	0.318
Helping others	4.967806	4.967806	2.085769	2.38	0.018
Work experience	-.1484629	-.1484629	.1843197	-0.81	0.421
Average income	.0010884	.0010884	.0006415	1.70	0.091
Expenditure on stimulants	-.0014179	-.0014179	.003485	-0.41	0.684
Constant	-32.32578	-------------	9.683442	-3.34	0.001

Number of obs   =   431

LR chi2(15)   =   79.47

Prob > chi2   =   0.0000

Pseudo R2   =   0.0303

Source: Own computation, 2014

In addition to the probit regression, we have estimated Tobit regression in order to figure out the extent of change in the rate of saving for a change in expected determinants. The result of the Tobit regression is presented in table 10. As indicated in the table, almost all the variables that were found to be significant under the probit regression, were also found to be significant to affect the rate of individuals saving, under the Tobit regression. The difference, here, is that age of the individuals was also found to be a significant variable at 10% level of significance, with P-value of 0.053. The implication is that, since variable age has positive coefficient of 0.3907815, as individuals' age increases, they save more. In other words, elderly people can save more than that of the youth people.

The extent of the significance of the variables has also changed here, but with the same sign of coefficients. Here, marital status of being married, respondents' use of planning for consumption, dependency/helping others, and average monthly income were found to be significant at 1%, 5%, 5%, and 10% level of significance, with P-value of 0.006, 0.023, 0.018, and 0.091, respectively.

The marginal effect after Tobit regression was estimated for the sake of showing the extent to which the rate of average monthly saving of the individuals change as there is change in these significant variables. As indicated in table 10, marginal effects (dy/dx) of these five significant variables (marital status of being married, age, use of planning for consumption, dependency/helping others, and average monthly income) are approximately 12.91, 0.39, 5.82, 4.97, and 0.001, respectively.

This shows that, if an individual is married, his/her rate of monthly saving increases by 12.91 percent; as age of an individual increases by a year, his/her rate of monthly saving increases by 0.39 percent; if an individual uses planning for consumption, his/her rate of monthly saving incrases by 5.82 percent; if an individual faces responsibility of helping other (burden of dependency), his/her rate of monthly saving increases by 4.97 percent; and if average monthly income of an individual incrases by one birr, his/her monthly rate of saving increases, by 0.001 percent.

Challenges Retarding the Level of Individuals' Saving

In order to figure out the major challenges retarding individuals' saving, possible expected factors were stated for the sample respondents to specify their judgmental qualitative scale. The scale has four categories which include: Strongly agree with rate of 4; Agree with rate of 3; Disagree with rate of 2; and strongly disagree with rate of 1. The factors which are expected to retard individuals' saving with the average rating scale of the sample respondents are presented using Table 11 and Figure 2.

Table 11: Rank of challenges retarding individuals saving

Factors Retarding Individuals' Saving	Lack of Sufficient Income	Use of Addictive Stimulants	Frequent Recreation	Rise in Prices (Inflation)	Helping Others	Absence of Planning	Use of Restaurants	Low Rate Of Interest	Lack of Awareness
Average Value of scale	3.41475827	2.359173127	2.1662338	3.496124	2.239583	2.378947368	1.986595174	2.32987013	2.397368421
Rank	2	5	8	1	7	4	9	6	3

Source: own computation, 2014

Table 11 indicates that rise in prices of commodities (inflation) is ranked as the first to retard the individuals' saving which is followed by lack of sufficient income. Specially, currently the food inflation rate is much higher than that of the non-food inflation, in Ethiopia; hence, the rate of inflation is expected to have adverse implication on the rate of saving of individuals for the fact that much of income the individuals is spent on food items. The other factors are ranked in descending order from 3rd to 9th as: lack of awareness, absence of planning for consumption, use of addictive stimulants, low rate of interest, helping others/dependency burden, frequent recreation and use of restaurants for daily meal.
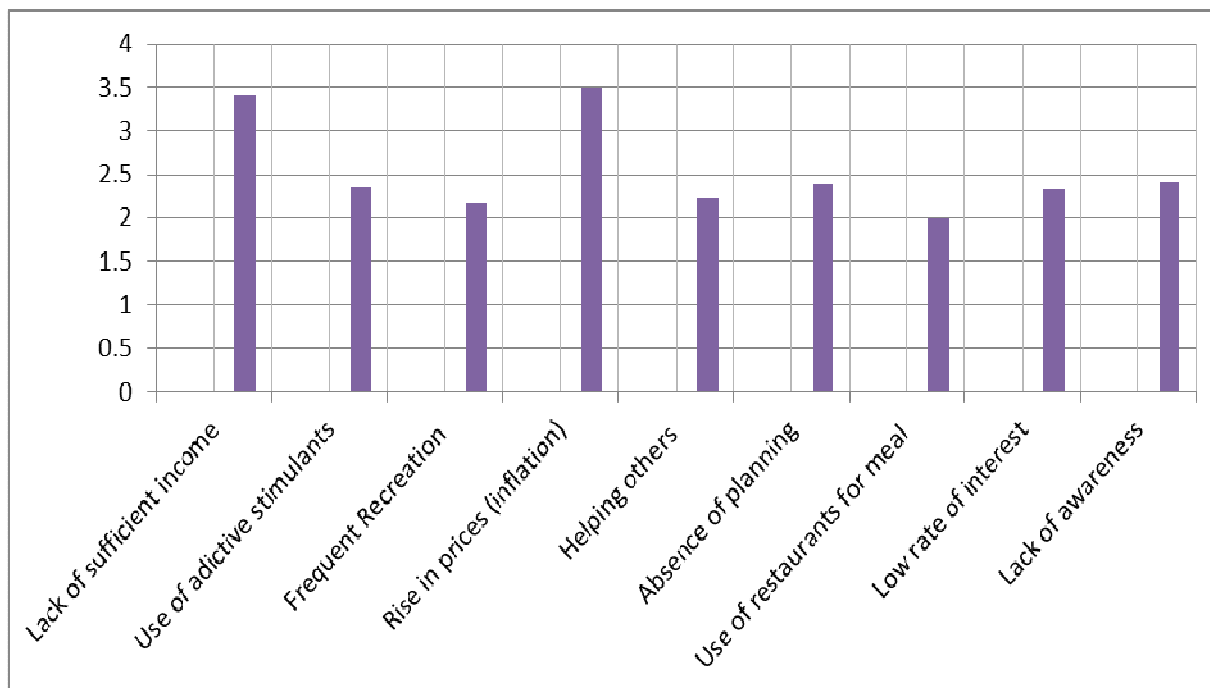
Figure 2: Scale of severity of the factors that retard rate of individuals' saving

Performance of Concerned Financial Institutions to Mobilize Households' Saving

Efficiency of performance of financial institutions is one of the factors which can determine the performance of individuals' and households saving utilization. In cognizant of this, in this study, an attempt was made to explore the performance of the formal and informal financial institutions to mobilize individuals'/households' savings.

Performance of Formal Financial Institutions

In order to analyze the performance of the formal financial institutions, all the banks found in the city were considered. However, only 7 of the banks (including Commercial Bank of Ethiopia, Wegagen Bank, Cooperative Bank of Oromia, Oromia International Bank, Awash Bank, Bank of Abyssinia and United Bank) were willing to provide information. Accordingly 15 branches of the 7 different banks were used to get the information about performance of the banks. From these 15 branches of the banks, 5 individuals were randomly selected from each, to provide us the required information. The analysis was made based on 4 major points including number of

customers depositing under each branch, economic status of depositors, trend of number of depositors, and complaints of customers.

Table 12: Economic status and trend of number of customers

	Economic status of customers		Total	Trend of number of customers			Total
	Rich and middle class	All		Increasing rapidly	Increasing slowly	remaining the same	
Number	13	62	75	40	32	1	73
Percentage	17.33	82.67	100	54.79	43.84	1.37	100
Average Number of Customers = 5834							

Source: own computation, 2014

Table 12 shows average number of depositors under each bank, which was estimated based on responses of 75 respondents from the banks. It is shown that, on average each bank serves about 5834 depositors. Given that the total number of the banks existing in Dire Dawa is 10, the total number of the people having deposit is 58340. According to the estimation of Central Statistical Agency (2005) estimation, employment – population ratio in Dire Dawa is 0.536. If we consider that this ratio is remaining constant, out of the current level of population in Dire Dawa (i.e. 378,417 according to estimation of 2011), 202832 are employed. Hence, the ratio of number of depositors to the number of employed people is 0.29. This shows that, provided that all depositors are employed people, more than two-third of the employed people does not have deposit.

Table 12 also presents economic status of depositors according to responses of all the 75 respondents from the banks. The table shows that, of the 75 respondents, 17 percent (13) state that the depositors are rich and middle men as denoted by "3". The rest 83 percent (62) report that depositors are with all type of economic status including the poor. This indicate that majority of the employees of the banks believe that the poor can also have deposit at banks.

In order to analyze trend of number of depositors over time, the selected respondents were requested to report whether the trend of number of depositors is increasing rapidly, increasing slowly, remaining the same or decreasing. Of the total respondents, 73 have given information about what they feel. Table 12 shows that 55 percent (40), 44 percent (32), and 1 percent (1) of the 73 respondents state that the number of depositors is increasing rapidly, increasing slowly and remaining the same, respectively. None of the respondents believe that the number of depositors is falling. This shows that majority of the employees of the banks believe that the number of depositors is increasing rapidly and almost all (about 99%) agree that the number of depositors has an increasing trend.

Table 13: Extent of customers' complaint

Existence of customers complaint	Number	Percentage
Yes	25	33.78
No	49	66.22
Total	**74**	**100**

Source: Own computation, 2014

The other important aspect with regard to the performance of the currently existing banks is the quality of the services they provide to the depositors. It is expected that the better the quality of the services provided by the banks, the more will be the favorability of the situation for saving mobilization. Hence, in order to diagnose this, the extent of customers' complaints was taken into account. In this regard, 74 of the respondents have indicated what they feel. As indicated in table 13, about 34 percent (25) of the respondents believe that there are complaints from customers whereas the rest 66 percent (49) deny the existence of complaints.

Whatever the case may be, the result shows that more than one-third of employees of the banks state that there are customers' complaints. The major complaints, according to these respondents, include;

❖ Network (internet) connection problem

❖ Lack of online services

❖ Lack of understanding about the core banking system by both the customers and employees of the banks

❖ Lower rate of interest and absence of negotiation on interest

❖ Longer period of services

❖ Lack of incentives

❖ Lack of advanced technologies

Performance of Informal Financial Institutions

In Ethiopia, "Idirs" are the mostly known informal financial institutions, through which people accumulate capital mainly for risk pooling purpose. In some cases, the accumulated capital can also be utilized for investment on business activities. In order to analyze about the performance of the informal financial institutions, 40 "Idirs" which are well recognized by the nine kebelles of the city were selected, purposively with assistance of the kebelles' guidance. The major indicators considered to analyze the performance of these selected "Idirs", in terms of saving mobilization and investment creation, include; capital possession by the institutions, trend of capital accumulation, number of members involved, and business investments made by the institutions (as indicated in table 14).

Table 14 shows that, on average, about 91 households are involved and participate in each of the selected 40 "Idirs". Each "Idir" is expected to possess more than 72 thousand birrs, on average; implying that for all the 40 "Idirs", more than 3 million birrs is currently accumulated. With regard to the trend of capital accumulation, 7 (17.5%) of the "Idirs" have experienced rapid increase in capital accumulation; 30 (75%) have got a gradual (slow) increase in capital accumulation; but the rest 7.5% of the "Idirs" are facing a stagnant or a falling trend of capital accumulation. The implication of this is that majority of the "Idirs" are experiencing at least a gradual increase in capital accumulation.

Hence, with such an increasing trend of capital accumulation, if accumulated capital is invested on business activities, more capital formation would be brought about overtime, along with the

risk pooling practices of these "Idirs". However, table 14 shows that only 5 (12.82%) of the selected "Idirs" are engaged in such activities. Even if there is tendency of capital accumulation for the "Idirs", most of them do not invest on business activities for the fact that the main purpose of establishment of the "Idirs" helping member households at the time of emergency especially for deaths of household members.

Table 14: Trend of capital accumulation, number of members involved in the informal financial institution and use of capital for investment

	Trend of capital accumulation				**Total**	Use of capital for business investment		**Total**
	Increasing rapidly	Increasing slowly	Remaining the same	Reducing		Yes	No	
Number	7	30	2	1	**40**	5	34	**39**
Percentage	17.5	75	5	2.5	**100**	12.82	87.18	**100**
Average amount of capital accumulation = 77270								
Average number of members = 91								

Source: Own computation, 2014

According to the qualitative information reported by representatives of the "Idirs", some of the major reasons that prohibit most of the "Idirs" not to engage or invest on business activities include:

- Lack of awareness about the possibility of making business investment
- Rigid attitude of some members of the "Idirs" who think that the "Idir" is established only for risk pooling purpose
- Lack of sufficient capital
- Fear of corruption and dishonest
- Disagreement among members of the "Idirs"
- Lack of enough knowledge about business investment and how to prepared business plans for investment
- Lack of willingness to get additional capital from banks due to expectation of higher rate of interest to borrow capital

- Absence of innovative members in the "Idirs"

Given this, we have tried to consult to representatives of the "Idirs" in order to create motivation of making business investment for the future. Taking this into consideration, most of the "Idirs" (80%) have shown positive reflection of making business investment in the future provided that the aforementioned problems can be solved.

CONCLUDING REMARKS

Nowadays, Ethiopia is found to be among the fast growing countries in the world. The country is currently said to have growth and transformation plan to boost its economic growth overtime to the extent that it is able to join the middle income countries within few years. It is believed that this objective can be realized if the country can make substantial amount of investment in all of its economic sectors. According to different economic theories and empirical studies, such amount of investment can only be achieved through higher rate of capital accumulation which is brought about through national savings or foreign direct investment.

However, currently, much of the capital accumulation is brought about from foreign direct investment. The rate of saving in the country was found to be very low. Such reliance on foreign capital is said to have adverse political and economic implication for sustainability of economic growth of the country in the future. Hence, in order to keep sustainability of growth of the country, the rate of saving in the country has to improve. As individual citizens are the major economic agents or actors of the economic system, development of their saving pattern or behavior can have significant impact to improve the national saving of the country. Hence, empirical studies focusing on the saving and investment pattern of individual citizens is expected to be crucial so as to make appropriate economic policies on the issue under consideration.

In cognizant of this, this study was undertaken in order to explore the extent of individuals saving and its utilization, identify the major determinants of the individuals saving, and assess the role of concerned bodies/organizations in improving the household saving; taking Dire Dawa City as a case study area. The study was undertaken using mainly primary data of survey

undertaken on individual employees, and formal and informal financial institutions; which was analyzed through descriptive and quantitative analyses.

Result of the descriptive analysis shows that the rate of individuals' saving is very low as compared to that of other fast growing countries like china. The trend of individuals' rate of saving for majority of selected respondents does not show improvement overtime. However, majority of the people were found to have good attitude towards saving and make plan for consumption. But, still there are significant number of individuals who do not use planning for consumption. The study reveals that much of the spending of the individuals is made on daily meal or food items; which shows the characteristics of spending of poor people. The study also indicates that majority of the individuals use their saving for some other purposes than to make investment; besides there are significant number of individuals who do not use banks to save their money which would have been possibly used for investment by other individuals had they used banks.

Result of the descriptive analysis also shows that rise in prices of commodities (inflation) is ranked as the first factor to retard the individuals' saving which is followed by lack of sufficient income of individuals. It is obvious that currently the food inflation is much higher compared to non-food inflation, in Ethiopia; hence, as long as much of the income of the individuals is spent on food, it is expected to have adverse effect on the rate of saving of individuals.

With regard to the quantitative analysis of individuals' behavior of saving, the probit regression result shows that marriage, use of planning for consumption, and higher income earning can significantly enhance the rate of individuals saving. Moreover helping other as indication of becoming responsible person was found to be a significant factor to improve individuals' rate of saving. In addition to these four factors, the tobit regression shows that elderly workers can significantly save more than the youth.

Result of descriptive analysis of performance of formal financial institutions shows that the existing banks serve almost people with all type of economic status (both the poor and rich). According to the survey's result, trend of number of customers is increasing. Even in most cases, it is increasing rapidly. However, still, only less than one third of the employees of the city use banks for deposit. The study also indicates that there is significant number of complaints on the

services delivered by the banks which may retard the motivation of the people to use banks. These complaints include network (internet) connection problem, lack of online services, lack of understanding about the core banking system by both the customers and employees of the banks, lower rate of interest and absence of negotiation on interest, longer period of services, lack of incentives, and lack of advanced technologies.

With regard to performance of informal financial institutions, analysis of the survey indicates that significant amount of capital can be possessed by "Idirs" which can turn out to be invested to increase the capital formation. However, only little segment of the capital is being invested for business activities as only very few "Idirs" make business investments. The major reason is that the "Idirs" are established for risk pooling practices such as emergency of deaths. In relation to this, different problems were stated which are expected to prohibit the "Idirs" to make business investments. These are lack of awareness about the possibility of making business investment, rigid attitude of some members of the "Idirs" who think that the "Idir" is established only for risk pooling purpose, lack of sufficient capital, fear of corruption and dishonest, disagreement among members of the "Idirs", lack of enough knowledge about business investment and how to prepared business plans for investment, lack of willingness to get additional capital from banks due to expectation of higher rate of interest to borrow capital, and absence of innovative members in the "Idirs".

Policy Implications

- ❖ Findings of this study reveals that saving rate of individuals is very low; hence, emphasis should be given to enhance individuals' or households saving rate.

- ❖ Since, making plan for consumption is considered to be one of the major variables which can significantly affect individuals' rate of saving; awareness creation and trainings should be given to the society about consumption planning.

- ❖ Much of the income of the people was found to be spent on foods (daily meal) and food inflation is considered to retard rate of saving of households; hence, price stability policies targeted on major food items should be appropriately formulated.

❖ It was found that only insignificant amount of individuals' saving is allocated to investment as well as significant number of employees do not still use banks. Thus, mechanisms should be created to encourage the people to make investments with their existing level of savings. In addition, employers should be encouraged to create channels of connecting their employees with banks; such as the way some government institutions are paying salaries through banks.

❖ Since marriage is one of the most important factors which can enhance saving rate of individuals, especially the youth group should be encouraged for marriage through institutional and socio-cultural activities. For instance, employers of some institutions provide credit for their employees for marriage.

❖ Creation of sense of responsibility among individuals (especially among the youth) is very important to enhance saving of individuals.

❖ Increasing earning capacity of the people is expected to enhance individuals' rate of saving; hence, employees should be encouraged to look for additional jobs without jeopardizing their permanent job. Those employers of some institutions that rigidly prohibit their employees to have additional jobs should take this into account.

❖ Even if Ethiopian banks are currently performing well in terms of advancing their services through adoption of innovations, awareness creation and encouraging the people to save more, there are still complaints related to deposits and withdrawals of money, that they should take into account, in order to improve their services further.

❖ Findings of this study indicates that informal financial institution like "Idirs" can have significant amount of capital which can be allocated to business investments, no matter the fact that they are established primarily for risk pooling activities. Hence, efforts should be made to encourage these institutions to make business investments; through awareness creation, provision of additional capital, and business and entrepreneurial trainings.

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