Households Saving Behavior: Knowledge, Practice and Affecting Factors in North Gondar Zone, Amhara, Ethiopia

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Abstract

This study aims on analyzing the socio-economic determinant of households saving in north Gondar using descriptive analysis. From the descriptive analysis the average monthly income of households was found 1473.83 Birr. 54% of the total respondents have saving practice, and urban dwellers relatively save better than rural dwellers. Female headed households save 55% higher than male headed households. Moreover, those who have known time pattern of money getting save 221% more than the unknown time pattern do. The findings also indicate that those households who kept their money at home and used traditional saving ways save 451% and 74% less respectively than these who used banks. Related with respondents' family background on saving and expenditure 52.2% have had no discussions with their family. Common reasons found for households not to save are cultural background, lack of money, lack of education, social affairs, inflation, unemployment and low interest rate.

Keywords: Household Saving, Socio-Economic Analysis, North Gondar

1.   INTRODUCTION

Long-term economic growth requires capital investment – in infrastructure, education and technology, business expansion, and so forth – and the main domestic source of funds for capital investment is household saving. Development economics recognized for several decades the importance of the mobilization of domestic saving for economic growth in developing countries. Thus, the positive relationship between saving/investment and economic growth has long been an established fact in economics (Schmidt-Hebbel*et al.*, 1996; Bisat*et al.*, 1997; and Sinha, 1999).

In developing countries, economic fluctuations and climate risk lead to important income -variations and leave the households vulnerable to severe hardship. Moreover, their social coverage is restricted and the credit and insurance markets are not well developed. Thus, these countries often face saving allocation problems and have difficulties to develop productive investments.

According to Deaton (2005) and Rogg (2006), one of the serious problems confronting poor countries including Ethiopia is saving and investment gap. Because of this gap, these countries faced challenges to finance investments needed for growth from domestic saving. It is also common to see these countries to finance their investment in a short run partly through domestic government borrowings and/or foreign loan and grants but this can significantly increase debt burden and cannot be a solution in a long run.

Though Ethiopia is recording sustained economic growth for the last many years, the country is still categorized among the least developed countries. According to MoFED 2010/11, the GDP growth rate is 11.4%, Poverty head count index is 29.6% and inflation rate was 18.1%.

Ethiopia's financial sector is fairly underdeveloped. There are few indigenous banks that have been established with different proclamations and regulations. Moreover, often these banks are urban based and give loan to these engaged in trade and industry. Though the loan size is not adequate and charge high interest rate, microfinance institutions are grappling to widen their outreach to rural areas which comprises majority of the country`s population. Thus, saving is a way to smooth consumption and to withstand adverse shocks. The average gross saving rate as percentage of GDP of the country is 21% (MoFED , 2012). Hence, a better understanding of households saving behavior is important. Most saving researches done so far in developing countries in particular in Ethiopia are at macro level. Since macro works are based on macro economic data, they couldn`t consider consumer heterogeneity and diversity of saving behavior (Touhami *et al.* 2009).

On the other hand, micro econometric analysis allows estimating the importance of economic variables and the role of households features in the saving behavior. Cognizant of this fact, this study attempts to analyze the main determinants of household saving in Ethiopia giving special emphasis to North Gondar zone using micro economic evidences, which is limited in the country and none in the Zone.

The rest of the paper is organized as follows. Section 2 presents review of both the theoretical and empirical literatures. Section 3 describes the sampling techniques, method of data collection and the empirical model used. Section 4 reports the results found from the descriptive analysis. Section 5 deals with the implication and contribution to knowledge. Finally, section 6 is the conclusion and recommendation part.

2. LITERATURE REVIEW

2.1. Theoretical Framework

In developing countries, saving is difficult to capture as it can be raised on an informal basis and as a result, it cannot be completely assessed by the national accounts. On the other hand, in OECD countries saving is largely made up of property investments, monetary and financial investments (Schmidt-Hebbel *et al*., 1996; Bisat *et al.*, 1997; and Sinha, 1999). In developing countries, households hoard money. This is because these saving are perfectly liquid so they can be used to face any urgent need or investment opportunity. This becomes all the more important since households' confidence in the banking system is low. Moreover, non-financial saving is important in developing countries. It can take various forms as precious or semi-precious materials (jewels, carpets, etc...). In Ethiopia, precious or semi-precious materials are accumulated on a regular basis and are exchanged against liquidities in order to meet lifecycle (education, marriage, immigrations, etc.) or urgent spending. The non-financial household saving also consists on housing properties and other forms of ownership (land, livestock, machines, etc.). Robinson (2004) adds building materials, cereals and harvest to these main forms of saving. More generally, this kind of saving accounts for a large part of households' saving. According to Goldstein and Barro (1999) "*one of the essential characteristics of non-financial savings is to be able to be easily used in case of social need or economic opportunity. For cereals stocks or livestock purchases, can add high motivation of economic profitability*". Therefore, livestock accumulation is a source of profit. Livestock can be easily sold; some of them produce other consumable and tradable goods (eggs, milk, wood, etc.) or can be used as agricultural inputs. Nevertheless, this form of saving present some drawbacks: cattle breeding and rearing requires resources like water, animal food, pasture, work-time and can be lost in the case of illness or natural disasters.

Various economic literatures identify a large number of motives for household saving, most of them derived from two consumption theories: the permanent income hypothesis and the life cycle hypothesis. Schmidt-Hebbel *et al.* (1996) discuss the saving determinants in each specific theory (which are opposed as far as the sign of some determinants is considered) and how they are related to empirical findings. Among these motives, the most often recurred are the precautionary behavior, life-cycle considerations, investment opportunities, the preference for smooth consumption, the need to accumulate resources for large purchases and the bequest reason.

The permanent income hypothesis predicts that an unanticipated increase in the future income relative to the current income reduces current saving in contrast to the Keynesian point of view. Most of the empirical studies (Hall, 1978 and Flavin, 1981) found that consumption exhibits "excess sensitivity" to a change in income.

From the macroeconomic perspective, many empirical studies, both in developed and developing countries, investigate the determinants of private saving rates in order to explain the diversity in saving rates in the world. Losayza *et al.* (2000) reviewed drivers of private saving and classified them into demographic and economic variables. The demographic variables include old or young age and urbanization. Whereas the economic variables include income (temporary/permanent), uncertainty (political instability), rates of return (interest rate, inflation...), domestic and foreign borrowing constraints, fiscal policy and pension system. Various model specifications related to data samples and econometric strategies are also suggested. However, these literatures provide ambiguous results. Numerous saving determinants are not significant and/or the estimated sign is not consistent with the theory. A case in point here is the sign of the income level. Moreover, since macro works are based on macro economic data, they couldn`t consider consumer heterogeneity and diversity of saving behavior (Touhami *et al.* 2009). On the other hand, micro-econometric analysis allows estimating the importance of economic variables and the role of households' features in the saving behavior. This study tries to keep track with this empirical research field.

2.2. Determinants of household saving in the empirical literature

Research on the determinants of household saving based on micro data drawn from the less developed countries has lagged far behind the pace set in advanced nations. It would appear that there has been limited hypothesis testing in the LDC's beyond macro formulations of the consumption function. Furthermore, very little of the development literature attempts to isolate the impact of structural change on aggregate personal saving, since few studies provide meaningful disaggregation (Kelley and Williamson, 2009). This state of affairs seems paradoxical, given the currency of W. A. Lewis's remark that the central problem in development theory is to explain an increase in domestic saving from 4 or 5 percent of national income to 12 or 15 percent (Lewis, 1954). Besides, few studies assess the determinants of saving at the individual level generally due to the lack of data. Using recent econometric techniques, Carpenter and Jensen (2002) and Kulikov, *et al.* (2007) identify how household characteristics affect saving behavior, in Pakistan and Estonia respectively. Carpenter and Jensen (2002) focus on the role of institutions which collect saving and stress on the role of formal (banks) and informal institutions (saving committees). They found that "*increased income leads to a greater desire to participate in some form of saving institutions but as income increases more individuals shift to the formal sector*". They also

found evidence that the urban-rural differences in bank use is negligible which suggests that formal finance is not primarily restricted to urban households in Pakistan. As opposed to Carpenter and Jensen (2002) who focus on the savings supply side, Kulikov *et al.* **(2007)** analyze the saving determinants on the demand side. Making a distinction between regular and temporary household income allows the authors to put forward the role of income variability and the different forms of household assets (financial and non-financial) in a transition economy (Estonia). Their analysis is based on data from household budget surveys. As in many empirical studies, they found that the saving rates depend more on the transitory income than regular income. Among the other variables, the labor market status or the non-financial assets ownership (real estate for instance) and credit access have not significant effect on the household saving behavior; the durable goods possession (in particular cars) has a negative impact on the saving rate.

Among the few researches done in developing countries; Klause *et al. (*1992) studied households saving in developing countries using combined time series and cross-country observations. They found that income and wealth variables affect saving strongly. Touhami *et al.* (2009) also investigate the micro-econometric determinants of households saving in Morocco using Ordinary Least Squared supplemented with Instrumental Variables estimators as robustness' checks. They concluded that income significantly explains the cross-sectional variation of the saving behavior of households in Morocco. Tsegaye (2014) as well did another research on the determinants of household saving in South Africa using econometric approach and found contrary results with theoretical expectations. That is households income is negatively related with their saving and inflation, dependency ratio and interest rate are positively related.

Similarly, Aron *et al.* (2013) assessed households saving culture of Ethiopia employing chi-square test and other descriptive statistics and found poor saving culture with saving rate to GDP of 9.5 %. They also reported lack of appropriate saving products, lack of incentive to save, low-income level, high level of debt, low interest rate, and high inflation as causing factors for the poor saving.

Though limited to rural areas and conducted in region with very unique culture, and living style in the country (which is expected to significantly affect the saving determinants), Girma *et al.* (2013) identified determinants of household savings in East Hararghe Zone, Oromia Regional State Ethiopia. Household head education level, livestock holdings, access to credit service, income, investment, training participation, contact with agricultural extension workers forms of savings and saving motives were found to have significant influence on the amount of households savings.

The empirical literature review revealed that there are different factors that affect household saving. Most of these empirical studies focus on aggregate national saving using macro data. Besides, there is no study conducted on microeconomic level on the determinants of household saving in northwestern Ethiopia and limited studies are found in the country. Therefore, this paper attempted objectively to identify major micro level determinants of current saving at household level focusing on the effects of the socio-economic characteristics of the households on saving behaviors and their view on income, expenditure and credit institutions. The study is also intended to contribute to the existing research gap through a better exploration of its determinants.

3. METHODOLOGY

North Gondar is one of the eleven Zones in Amhara Regional State, which is located in the North western part of the country. Towns and cities in Semien Gondar include Dabat, Dembia, Debarq, Gondar, Gorgora and Metemma. According to CSA (2007), the zone has a total population of 2,929,628 of whom 1,486,040 are men and 1,443,588 women. The total area of the zone is 45,934.090 square kilometers and the population density is 64 persons per square kilometer (CSA, 2007).

A cross sectional survey method was employed by using semi-structured questionnaire among selected representative households in the zone. The primary data was collected via enumerator-administered questionnaires in August 2013 using a multistage sampling technique. From the three districts (urban and rural) of the zone i.e. Gondar, Dembia and Dabat districts 604 households were surveyed. The questionnaire comprise, among others, household characteristics, monthly and/or annual income, wealth in its various forms, location (area of residence) of the interviewees, interest rate, absence or presence of financial institutions/intermediaries, financial management habit and knowledge of respondents, which are considered to be important variables that affect household saving behavior on a priori theoretical grounds.

The sample size was determined based on the simplified formula developed by Yamane (1967) at 95 percent confidence level, 0.5 degree of variability and 95 per cent level of precision. The data was analyzed by employing descriptive statistics to analyze major determinants of household saving.

4. RESULTS AND DISCUSSION

4.1. Household characteristics of the sampled respondents

In the survey all districts (Denbia, Gondar, and Dabat) have had equal share in the number of respondents which was around 33.3%. The average age of household heads was 41.47 years with the minimum and maximum ages
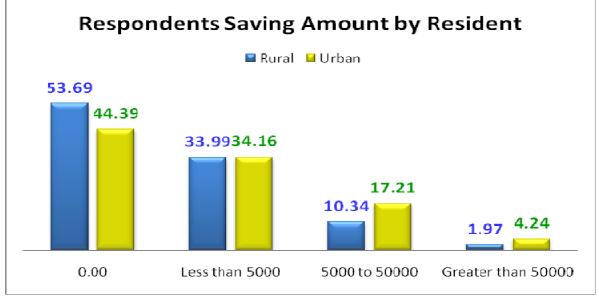
of 18 and 84 years with standard deviation of 13.09 years. Among the sampled respondents 79.6% were married, Widowed 8.8%, Divorced 7.8% and the rest 3.8 % Unmarried. On the other hand, the average family size of the sample households was 5.04, which was almost equal with the national average of five persons (CSA, 2010). The largest family size was thirteen and the smallest one.

The proportion of male-headed and female-headed households in the survey was 507 (83.9%) and 97 (12.7%) respectively. Fifty-nine percent of the respondents have attended formal education and 28.8% of households were not able to read and write and the rest 11.4% were able to read and write. With regard to occupation of the total sampled household 214 (35.4 %) were farmers, 207 (34.3 %) traders, 113 (18.7%) employees and the rest 11.6 % were students, pension, housewife, laborer, and unemployed.
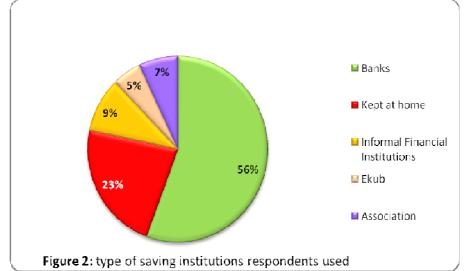
4.2. Income source and saving pattern of respondents

Average monthly income of households was found to be 1473.83 Birr ($81.87 using the then exchange rate $1=18 birr). Majority of households 591 (94%) reported that their source of income was from their own work. Few respondents also reported remittance and pension as source of their income. On actual saving practice, 54% of respondents have saving practice. That is they spend less than their income and save it in either cash and/or asset form. Among those 270 (65.1%) saved less than 5000 Birr. However, rural dwellers' saving practice is a bit lower than that of urban. 53.69% and 44.39% respondents from rural and urban respectively save none. Only 4.24% urban respondents and 1.97% rural respondents save above 50,000.

Most households prefer to save money in cash than asset and used both formal and informal financial institutions for saving. With regard to receiving income 489 (81.0 %) respondents reported that they have known time pattern. Among those who have known time pattern, seventy-eight percent of respondents reported that their frequency of time of receiving income time pattern was monthly followed by yearly (20.2%) and weekly (1.6%). Besides, these who have known time pattern of money getting save 221% more than these with unknown time pattern do. This might be due to the difficulty to plan for unknown time pattern.

Fig 1: *respondents saving amount by resident*

Formal job is mentioned as source of saving for majority (80.8%) of the respondents. In this case the share of informal jobs is around 10.9%. The rest formal and informal job, unexpected income, and remittance constitute 8.3%.

Figure 2: type of saving institutions respondents used

With regard to form of saving institution, the results indicate that a good number of respondents (56%) used formal saving institutions particularly banks. However, a significant number of respondents (23%) also kept their money at home which doesn`t circulate and contribute for the economy. The results indicate that those households who kept their money at home and used traditional saving ways save 451% and 74% less respectively than those that use banks. However, those who use microfinance institutions save 309% higher than their counterparts who use banks. This might be due to the close follow-up, monitoring and encouragement system of micro finance institutions.

Female-headed households were found in a better position to save; they save 55% higher than male-headed households. However, households headed by both men and women save 31.8 % lesser than male-headed households which might be due to lack of clear accountability and responsibility. Saving practice difference is also observed between women and men; women`s save 17% higher than men.

Besides, significant saving potential difference is found among households based on their occupation. Taking civil service employees as a base or reference group, traders save +19.6% more than civil service/public sector employees, students -743%, farmers +132%, households in pension -10% and daily or casual workers 0.02% save more than public sector employees which really explains the grave economic situation public sector employees find themselves in.

4.3. Financial Management Knowledge of respondents

The descriptive result showed that respondents' knowledge about financial management was above average. Out of the sampled households, 326(54%) responded that they know a wee bit about financial management, 159(26.3%) said as they do not know anything about it and the rest 19.7% showed confidence on their financial management knowledge. Among the total sampled household, 315(52.2%) have had no discussions with their family on the importance of saving when they grew-up. Similarly, 349 (57.8%) have had no discussions with their family on family expenditure plan. However, almost all respondents, that is, 580(96%) acknowledged the importance of saving.

It is also observed that 480 (79.5%) of the sampled respondents didn`t have written goals that require saving. To measure respondents' expenditure controlling trend they were asked if the things that they own are important to them. Thus, 262 (43.4%) respond that the things that they own are not all that important to them. Similarly, 352 (58.3%) responded that buying items and stuffs gives them a lot of pleasure and 380(62.9%) mentioned that ~~as~~ they can spend money which is obtained unexpectedly (windfall income). Thus, since lack of having written goal and unplanned expenditure discourages saving, the government should interfere to improve the planning and expenditure controlling culture of the community to enhance household saving.

4.4. Planning and Expenditure Controlling Habit

The planning and expenditure controlling habit of most respondents was also found minimal. Only 10% and 12 %of the respondents have plan on how to manage their money and their spending most of the time. A significant number of respondents, 30% never have money management plan. Similarly, 24.6% never have spending plan. Since, this adversely affects their saving practice it needs intervention from the government.
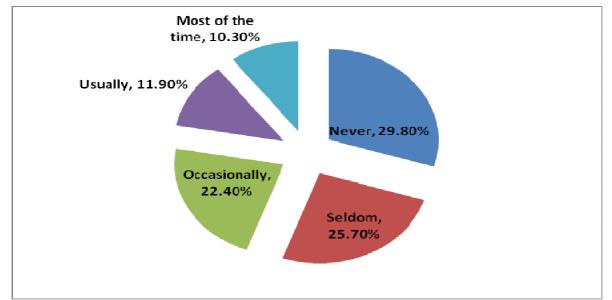
Figure 3: respondents' money management plan frequency

4.5. Credit access and Impact of policy variables

Credit can increase consumer access to essential resources and fuel economic growth. It also enables efficient allocation of risk, costs and financial reserves. Besides, farmers can acquire inputs and equipment – such as fertilizers, tractors, farming equipment and livestock – that make them more productive and enhance overall agricultural productivity. It is also widely recognized that access to credit is critical for cultivators operating in a market setting. In order to fully exploit natural, material and human resources in most efficient and effective way it is necessary for any country to have credit access via a sound financial or banking system.
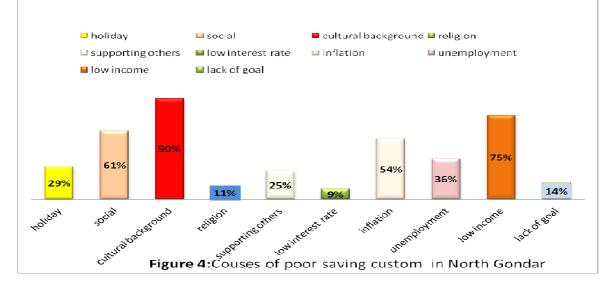
Table 1: Credit access and Impact of policy variables

Variable		Frequency (n)	Percent (%)
Are you aware that you can earn interest on your saving accounts	Yes	532	(88.1)
	No	72	(11.9)
Will you decide to save more if the current interest rate increases	Yes	422	(69.9)
	No	110	(18.92)
Impact of policy variable/ inflation, interest rate on saving	Inflation	322	(53.3)
	Unemployment	212	(35.4)
	Low interest rate	55	(9.1)
	Credit access	49	(8.1)
Possibility of getting credit from any source?	Very Easy	159	(26.3)
	Easy	95	(15.7)
	Difficult	103	(17.1)
	Very Difficult	165	(27.3)

Among the sampled respondents credit access is difficult and very difficult for 17.1% and 27.3% which accounts around 45%. Similarly, only 37.4% of the sampled respondents get the chance for credit they need. Thus, the government should improve the accessibility and availability of credit via different mechanisms.

With regard to policy variables, respondents recognize the effect of inflation (53.3%) and unemployment (35.5%) on households' saving. In addition most respondents 532 (88.1%) were aware that they can earn interest rate on their saving accounts and 422(69.9%) of the respondents mentioned they can decide to increase their saving if the current interest rate increases. Thus, this is also a good policy indication for the government to enhance households' saving.

4.6. Saving Custom and Barriers

The results of the descriptive analyses shows that 54.1% of sample households practiced saving and the common reasons found for households not to save are cultural background 540 (89.4%) followed by lack of money 519 (86%), lack of education 492(81.5%), social affairs 371(61.4%), inflation 322(53.3%), unemployment 214 (35.4%) and low interest rate 55 (9%).

Figure 4: Couses of poor saving custom in North Gondar

4.7   Analysis of District based results

4.7.1. Family back ground and financial management knowledge
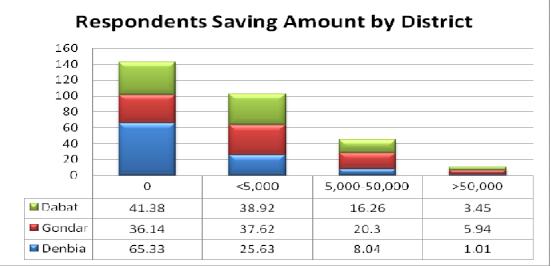
There is some difference among respondents in having discussion with their families on the importance of saving when they-grow-up. Respondents from Dabat have had better experience (53% have had discussion) followed by respondents from Gondar (49.5). On the other hand most respondents from Denbia (60%) have not had the experience.
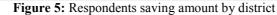
4.7.2. Saving practice

The saving practice of respondents is relatively better in Gondar (65%) followed by Dabat (57%). In Denbia district most respondents (60%) don`t have saving practice. Though; it needs further research, the main reseason for the difference among the districts might be the socio-cultural issues in addition to the factors related with income level. Most respondents (85%) from Denbia responded that low income affects saving. While for Dabat and Gondar the share is 77% and 63% respectively. Thus, this indirectly indicates the relatively low income existence in Denbia than Gondar and Dabat.

4.7.3. Amount Saved

On average 54% of respondents have saving practice. However, there is a significant difference among the districts. 65.3% respondents from Denbia, 36.14 % respondents from Gondar and 41.38 % respondents from Dabat save none. On the other hand only 1% respondents from Denbia, 5.9 % respondents from Gondar and 3.45 % respondents from Dabat save more than 50,000 Birr.

	0	<5,000	5,000-50,000	>50,000
Dabat	41.38	38.92	16.26	3.45
Gondar	36.14	37.62	20.3	5.94
Denbia	65.33	25.63	8.04	1.01

Figure 5: Respondents saving amount by district

This indicates that the households' saving amount is very low and is severe in Denbia district than the other two. This finding is also aligned with the above mentioned results, low saving practice and weak family background on the importance of saving section.   Thus, much has to be done on the district to improve

households' saving.

5. IMPLICATION AND CONTRIBUTION TO KNOWLEDGE

To the best knowledge of the researchers, so far, no study was conducted on the socio-economic analysis of household saving in northwestern Ethiopia and limited studies are found in the country. The study attempted to assess the effect of socio-economic factors such as age, sex, marital status, occupation, level of education, cultural background; and income, saving and credit experience of households. Thus, it is found that sex, occupation, form of institutions used for saving and frequency of getting money significantly determines the savings of households. The findings of the study also establish 54% of household's practice saving and identified saving barriers such as inflation, low income, cultural background, education, social affairs and unemployment. Thus, this study may contribute positively to the existing stock of knowledge on saving behaviors of households in rural and urban areas of the country and enhance evidence-based interventions.

6. CONCLUSION AND RECOMMENDATION

6.1. Conclusion

The average monthly income of household was found to be 1473.83 Birr and 54% of respondents have saving practice. Women headed households save 55% higher than men headed households and women`s save 17% higher than men. These who have known time pattern of money getting save 221% more than these with unknown time pattern do. Besides, those who use microfinance institutions save 309% higher than their counterparts who use banks. On the other hand, respondents' family background on saving and expenditure was found weak. Among the total sampled household, 315(52.2%) have had no discussions with their family on the importance of saving when they grow-up. 180 (30%) of the respondent never have money management plan and 480 (79.5%) didn`t have written goals that require saving. With regard to policy variables, respondents recognize the effect of inflation (53.3%) and unemployment (35.5%) on households' saving. 532 (88.1%) respondents were also aware that they can earn interest rate on their saving and 422(69.9%) mentioned as they can decide to increase their saving if the current interest rate increases. Based on their occupation traders and farmers save 19 and 132% higher than employees; and the common reasons found for households not to save are cultural background 540 (89.4%) followed by lack of money 519 (86%), lack of education 492(81.5%), social affairs 371(61.4%), inflation 322(53.3%), unemployment 214 (35.4%) and low interest rate 55 (9%).

6.2. Recommendation

Based on these findings, we recommend that government policy intervention should focus on increasing the availability and accessibility of financial institutions, awareness creation and education on the importance of saving and saving modalities, planning and expenditure controlling habit, socio-cultural saving barriers, increasing interest rate, and inflation and unemployment combating strategies to augment saving capacity, investment and then economic growth. Besides, the government is also recommended to focus on expanding and promoting the formal financial institutions than the informal ones; initiating gender based saving mobilizations and formulation of policies; and enabling institutions to make payment using banks to reduce the frequency of cash falling into villagers hands as such money can be squandered purposelessly.

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