

Determinants of Saving Behaviour of Rural Households in Sivasagar District of Assam

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Abstract

The study examines the determinants of saving behaviour of rural households in Sivasagar District of Assam. It is found that along with income, other significant determinants of saving behaviour of rural households of Sivasagar District are occupation, size of land holding and size of family members in the households. Saving decreases as the size of the household increases, so there exists negative relationship between size of family members and saving. Though age is not a significant determinant of saving, but there exists a positive relationship between age of the household head and saving.

Key words: Saving, rural households, determinants of saving.

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I. Introduction

The growth of an economy depends on capital accumulation. The accumulation of capital depends on savings (Goswami, C. 2016). Saving constitutes the basis for capital formation, investment and growth of a country (Nga, 2007; Nwachukwu and Odigie, 2009). Domestic savings are important for the economic development of countries because investments are generated through savings. Countries characterized by less efficient markets, have ample dependency on domestic savings to finance their development projects. According to the Grameen Foundation (2008) the collection of savings deposits is one of the most critical aspects to facilitate continued growth and the further evolution of the microfinance sector. Saving is the amount of current income which is not spent on consumption. Household savings is that part of current income, after the payment of direct taxes, which is not consumed. Saving includes current disbursements in the form of a reduction in liabilities of households, such as repaying loans (Tessome, Kassa, Eman and Haji, 2013).

II. Review of Literature on Determinants of Saving:

Saving is an important variable in the theory of economic growth. Several studies have been conducted to estimate motives of savings, composition of savings and determinants of savings.. These studies differ from each other in terms of both the method of estimation and the set of data used. Some studies have used cross-country data, some have utilized single country time series data and still some others have used micro level data obtained from household income and expenditure surveys.

Ahmad and Asghar (2014), examined the impact of household income, and other socio-economic and demographic factors, such as dependency ratio, education, earning status, employment status and occupation, on household savings in Pakistan using the ordinary least square technique. Dependency ratio and various categories of education have negative impact on saving as more educated households have higher consumption expenditure and are less likely to save. There is a positive and causal relationship between saving and income. Households' capacity to save increases with household income.

Akpan et. al. (2011), analyzed determining factors that affect household saving of rural agro-based firm workers in the south-south region of Nigeria. Two-stage least squares method of simultaneous equation model was used in the analysis. The results of the analysis revealed that income, tax, job experience, education, family size and membership of a social group influence saving attitude of workers.

Burney and Khan (1992), examined the effects of various socio-economic and demographic factors on household savings in Pakistan. Ordinary Least Square Method was employed as estimation technique. The study concluded that income, earning status of household head, occupation of household head and age square of household head were found to be positively related; and inverse of household income, dependency ratio, education levels of household head, employment status of household head, secondary earners in household and age of household were found to have negative relationship with households saving in urban as well as in rural

Pakistan. It was also concluded that value of Marginal Propensity to save was 0.22 in urban Pakistan and 0.37 in rural Pakistan.

Issahaku (2011), studied determinants of saving and Investment in Deprived District Capitals in Ghana and found that the age composition and assets do not have a major effect on saving. The factors that make household investment are occupation, expenditure, assets and savings.

Iqbal (1993), while studying institutional variations in saving behavior in Pakistan also found a positive relationship between domestic real interest rate and savings. The study suggested that increase in real interest rate provides an incentive to private household to save more, induce corporate sector to generate its own savings due to high cost of borrowing, thus overall saving would increase.

Khan J., Ullah, A., Wahid, F., (2009), conducted a study in the year 2010 in district Karak rural areas to assess the difference in household savings in various rural regions. A sample of 300 respondents (100 from each area) was selected randomly and then household savings were analyzed. The paper confirmed disposable income of household head and support ratio very crucial in boosting household savings and female headed household save more than male headed households.

Nga (2007), examined household saving in South Africa during 1983 to 2003. The study identified the main factors responsible for the lack of a commitment to saving which are particularly relevant in the case of poor households. The major factors are- lack of income (due to unemployment), inadequate income, over-consumption (due to obvious consumption, procedural rationality and the bandwagon effect) and market failures, such as unfinished or even no information, lack of financial literacy, cultural and political factors. Income was found to be the main determinant of savings for a multiplicity of purposes such as precautionary and bequest motives.

Nwachukwu, T. and Odigie, P. (2009), discussed the trend in Nigerian saving behaviour and reviews policy options to increase domestic saving. It also examined the determinants of private saving in Nigeria during the period covering 1970 – 2007. The results of the analysis show that the saving rate rises with both the growth rate of disposable income and the real interest rate on bank deposits. Public saving seems not to crowd out private saving; suggesting that government policies aimed at improving the fiscal balance has the potential of bringing about a substantial increase in the national saving rate.

Turner and Manturuk (2012), examined how individual, institutional, and structural determinants impact the decision-making processes that guide participants' savings behaviour. Results showed that individual factors such as obligation to family, upbringing, and employment experiences affect participants' attitudes toward savings and their confidence in their ability to save. Institutional factors such as incentives, disincentives, and organizational culture shape participants' trust in financial institutions and their attitudes towards participating in savings programs was studied. The study concluded that savings can be promoted by ensuring the security of banking system and improving excess by small savers.

Rehman, Faridi and Basir (2010), conducted multivariate analysis presented determinants of households' saving in Multan district in Pakistan. The study revealed that Spouse participation, total dependency rate, total income of household and size of landholdings significantly raises household savings. Education of household head, children's educational expenditures, family size, liabilities to be paid, marital status, and value of house significantly reduce saving level of households.

Teshome et. al. (2014), examined the pattern of rural savings in East Hararghe Zone of Oromia National Regional State, Ethiopia to assess the pattern of household savings and its determinants. Data were analyzed using descriptive statistics and multinomial logit model. The result signified that 38.5, 23.4 and 38.1 percent of the sample households saved in physical asset only, financial form only and both physical and financial forms. Credit access, contacts with development agents, leadership role of household's head in the community, information access and membership in the microfinance institutions have significant impact on savings in financial forms only.

Desai (1983), in his research on rural savings found that Villages that are close to urban centres significantly participate in markets, particularly in the mutual fund market. Demographic characteristics of rural households, like marital status and gender, do not significantly alter the distribution of investment. The rural households tend to save only when their incomes increases. Rural savings are determined by both "ability" and "incentives" to save. This is because rural households hold their savings in monetized as well as non-monetized forms. Moreover, some of the monetized savings are held in the form of physical assets.

Gedela (2012), examined the determinants of the saving behavior of the tribal and rural households in the district of Visakhapatnam. The study found that the age of the head of the household, sex, dependency ratio, income and medical expenditure are significantly influencing the saving behavior of the people. In the tribal area, dependency ratio and medical expenditure has adversely affected household savings. Income was found to be the most crucial factor of the saving behavior in the study.

Nayak (2013), analyzed the determinants and patterns of saving behaviour in rural household of western Odisha. In rural areas, the marginal propensity to consume is more, while the marginal propensity to

save is less. The determinants of saving are analyzed empirically by a linear regression method. The study finds that most of the rural households have low educational status which is resulting in less awareness of the people towards the benefits of saving. APC and MPC of the rural households varies in terms of the distribution of income and occupation, the lowest income groups (the agricultural and non- agricultural labourers) have the highest marginal propensity to consume which leads to lowest marginal propensity to save as compared to the other occupation.

In the conclusion of the review of literature, we found that the savings do not depend upon income alone rather on the consumption pattern of the individuals and other socio economic and demographic characteristics also.

Significance of the Study:

In Assam, rural population constitutes 85.92% of total population. Development of rural economy is very important for rapid growth of an economy. And for economic development of the state, rural saving is very important. To study the importance of rural households to state’s savings, a district level study will help to find out the different determinants of saving at grass roots level.

Objectives of the Study:

1. To analyse the socio economic background of the sample households.
2. To examine the determinants of savings in rural households in Sivasagar District of Assam.

III. Methodology

The study is based on primary data. Simple regression method (OLS) is used to analyse the determinant of saving of the rural households of Sivasagar District. The Sivasagar district of Assam has three sub divisions – Sivasagar, Nazira and Charaidew. Multi stage random sampling method was adopted for selection of the study area. From three subdivisions, out of 9 blocks, 5 blocks are selected at random. As per 2011 Census, 40.19 percent of rural households are in Sivasagar Sub Division, 19.22 percent in Nazira Sub Division and 40.58 percent households are in Charaidew Sub Division. So 40 percent of sample households are from Sivasagar Sub Division, 20 percent from Nazira Sub Division and 40 percent sample household data are from Charaidew Sub Division. Primary data has been collected through direct personal investigation and interview method. The reference period of the study is 2016-17. The size of the sample is 400 households. The sample design is as follows:

Table 1			
Sub Division	Block	Gaon Panchayat	Village
Sivasagar (40.19%)	Demow	Nitai Pukhuri	Nitai Pukhuri Gaon
		Athabari	Athabari Grant
		Pachim Panidehing	Gelapathar
	Sivasagar	Lachit	Borpatra Gohain
		Deshang dhaiali	Mothadang
		Deshangpar	Joyapar
Nazira (19.22%)	Nazira	Phulpani Boruah	Mothia Chiga Gohain
		Piyoli Phukon	Handique Gaon
		Borbaruah	Halua Gaon
Charaidew (40.58%)	Pachim Abhoypur	Rajapukhuri	Na Kachari Gaon
		Bhoju	Singarijan Tea Garden
		Sonari	Sonari Grant
	Sapekhati	Beganbari	Dolakharia Gaon
		Rohan	Timon Bortani
		Purbanchal	Chiloni Naga Gaon

IV. Result And Discussion

As saving is the residual of income minus consumption, the determinants of saving are income, occupation, age of the head of the household, level of education and size of family members. The most important determinant of saving is the level of income of the households. The following table shows the distribution of households by income.

Distribution of Sample Households by Income:

Income Group (In Lakh Rs.)	Percentage of Households
Below 1 Lakh	22.25%
1 lakh -2 Lakh	17.0%
3 Lakh -4Lakh	18.0%
4 lakh-5Lakh	15.25%
5 Lakh-6 Lakh	12.0%
6 Lakh -7 Lakh	9.0%
7 Lakh-8 Lakh	3.75%
9 Lakh and above	2.75%

Source: Field Survey

From table 2, it is observed that 22.25 percent of sample households belong to lowest income group of below rupees 1 lakh per year. 18 percent of the sample households reported annual income in the range of 3-4 lakh. 17 percent households fall in the 1-2 lakh group, while the lowest percentage of sample households (9.0%) belongs to the income group 9 lakh and above.

Occupational Distribution of the Sample Households:

Occupation	Nos. of households
Cultivation	73 (18.25%)
Agricultural Labour	41(10.25%)
Daily Wage Labour	67 (14.25%)
Salaried (Private)	35 (8.75%)
Salaried (Govt.)	76(11.5%)
Self Employed	108 (27.0%)
Total	400 (100%)

Source: Field Survey

In table 3, among the occupation groups, number of sample households under self employment is highest, 27.0 percent of total sample households. Households associated with cultivation as major source of income is found to be 18.25 percent. Agricultural labour is 10.25 percent, daily wage labour 14.25 percent. The govt. salaried is found to be 11.5 percent of total sample households whereas Salaried (Pvt.) is 8.75 percent which is the lowest percentage of sample households.

Distribution of the Sample Households by Age:

Table 4	
Age of Head (in years)	Nos. of households
below 30	15 (3.75%)
30-39	82(20.5%)
40-49	136 (34.0%)
50-59	101(25.25%)
60 and above	66(16.5%)

Source: Field Survey

Table 4 shows that 3.75 percent sample household belongs to the ‘house head age group of below 30’. In contrast, the head of the Households aged above 60 years constituted 16.5 per cent of the total sample households. The highest numbers of households belongs to the age group 40-49 years, followed by 25.25 percent from the age group 50-59 years and 20.5 percent from the age group 30-39 years.

Distribution of Sample Households by Level of Education:

Financial decisions differ as attainment of education. Education level leads to financial awareness and choice of assets. The educational attainment of sample households is as follows.

Table 5	
Level of Education	Nos. of Households
Illiterate	04 (1.0%)
Literate (No formal Schooling)	15 (3.75%)
Primary	46 (11.5%)
Secondary	155 (38.75%)
Graduate	159 (39.75%)
PG/other	21 (5.25%)
Total	400 (100%)

Source: Field Survey

Table 5 shows that only 1 percent of sample households is found illiterate which is the lowest and highest percentage of rural households is graduate(39.75%) followed by Secondary level (38.75%). 3.75 percent of the sample households is found literate (no formal schooling). Percentage of households with primary level education is 11.5 percent and post graduate and other professional degrees are 5.25 percent of the sample households.

Distribution of Sample Households by Size of Family Members:

As saving is Income minus consumption, size of family plays an important role regarding saving capacity of a household. The higher the number of dependents, the higher will be consumption expenditure and the lower will be size of saving and per capita saving.

Table 6	
Nos. of family member in the households	Percentage of Households
1 to 2	1.25 %
3 to 4	34.25 %
5 to 6	47.5 %
7 to 8	15.5 %
9 and above	1.5 %

Source: Field Survey

Table 5 shows that the percentage of sample households with 5-6 members is highest at 47.5 per cent, followed by the family size of 3 to 4 members constituting 34.25 per cent of the sample households. Family size of 7-8 members is 15.5 percent, family size 9 and above is 1.5 percent and lowest percentage of households fall in the family size of 1-2 members.

Determinants of Saving among the Rural Households:

The following multiple regression model is used to determine the determinants of saving among the rural households.

$$S_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 D_{1i} + \beta_7 D_{2i} + \beta_8 D_{3i} + \beta_9 D_{4i} + u_i$$

S_i = S_i is the amount of saving of the i^{th} household, defined as the amount of annual income minus the annual consumption

- X_1 → Income of the Household
- X_2 → The Age of the household Head (in years)
- X_3 → Size of land holdings (in bigha)
- X_4 → Level of education (in years of schooling)
- X_5 → Family size (in numbers)

And,

D_i is dummy variable

Where, $D_{1i} = 1$, if the household head is male and 0 otherwise.

$D_{2i} = 1$, if the household head is salaried and 0 otherwise.

$D_{3i} = 1$, if the household head is married and 0 otherwise.

$D_{4i} = 1$, if the household head is general caste and 0 otherwise.

β_0 is the intercept term

$\beta_1, \beta_2, \dots, \beta_9$ are coefficients and u_i is error term

Table 7		
Dependent Variable: Saving		
Variables	Coefficient	VIF
Intercept	-3899.827	---
INCOME	0.343261***	1.682201
AGE	422.1851*	1.212875
OCCUPATION	32028.77***	1.520083
LAND	1247.583**	1.202211
EDUCATION	569.5091	1.409977
FAMILY_SIZE	-10813.27***	1.227932
GENDER	-5788.623	1.247816
MARITAL STATUS	-10550.32	1.158569
CASTE	7923.455	1.038116
R ²	0.84	
Adjusted R ²	0.83	
F statistic	207.12***	
Note: ***denotes significant at 0.01 level. **denotes significant at 0.05 level. *denotes significant at 0.1 level		

Source: Authors' Calculation

Using ordinary least square method, the relationship between saving and determinants of saving is analyzed. In table 7, The F statistic is found to be significant at 1% level of significance. The analysis shows that income is an important determinant of saving. Age is not a significant determinant of saving but there is positive relationship between age and level of saving. Occupation is a significant determinant of saving. Size of land holding is also statistically significant. Education is found to be insignificant but size of family is a significant determinant of saving at 1% level. And there exists an inverse relationship between size of the household and saving. It is seen from the table that gender, marital status and caste are insignificant as determinant of saving.

V. Conclusion

The study reveals that income is an important determinant of saving behavior of rural households of Sivasagar District of Assam. Apart from income, the other significant determinants of saving are occupation, size of land holding and number of members in the household. Though age is not a significant determinant of saving, but there exists a positive relationship between age of the household head and saving.

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