

**A STUDY ON THE EXOGENOUS VARIABLES WHICH
INFLUENCE THE REGULAR SAVING BEHAVIOR OF
THE POOR IN INDIA**

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ABSTRACT

The agenda of financial inclusion has been one of the top priorities of several developing economies. India is pursuing the goal of financial inclusion through several parallel efforts, both governmental and otherwise. Towards this effort, the Microfinance Industry in India is playing a key role of taking credit to the door step of people. However, in all of this rapid growth and expansion of the Microfinance industry in India, financial inclusion has been narrowed down to micro-credit inclusion. The other main pillar of financial inclusion, that is, Savings, has been largely neglected. There are several reasons stated for this, from regulatory to safety issues. However, a key unstated underlying assumption among several bodies has been that the poor cannot save. This is a myth that is being broken with proven facts in several parts of the developing world. Several region specific studies are required to substantiate with evidence, the importance of saving behavior in the lives of the poor. As a subset to this, it is very important for the government, policy makers and the financial industry to understand the factors that would influence the saving behavior of the poor. In the light of this situation, the study through carefully collected primary data, attempts to understand some of the independent variables which affect the saving behavior of the poor in South India.

Keywords

Financial Inclusion, Micro-Savings, Factors influencing Savings, Savings model

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1. Introduction

Amidst growing awareness and realization that the world's poor are excluded from the formal financial systems, Microfinance, amongst many other initiatives has come in to bridge this wide gap. Although Microfinance refers to the entire range of financial services such as savings, money transfers, insurance and production and investment credit, in most of these cases the focus has been on Microcredit, i.e., the extension of very small, frequent loans to a large number of poor clients¹. Many of the proponents of Microfinance beginning with Prof. Mohammad Yunus, started by looking at credit as a major key to solving this immense problem of poverty. They argued that the way out of poverty is not aid and grants, but creating economic enablers which will put the poor on the first rung of the growth ladder. Several institutions globally replicated this model. There were several institutions in India which came up on the same model- SKS, Spandana, SHARE, etc, to name a few. All of these institutions had their focus on Micro-credit. Over the past decade the number of Microfinance Institutions (MFIs) have grown rapidly and these are constituted by both Non-Governmental Organizations (NGOs) and Non-Banking Financial Corporations (NBFCs). All of these institutions focused on providing credit and neglected the other main pillar of financial inclusion, that is, savings. This study tries to understand those factors that influence the saving behavior of the poor in India.

2. Review of Literature

2.1 Savings: The neglected side of Microfinance

Aspects of financial inclusion like savings, insurance etc are largely unattended due to several reasons. **Wright (2008)** observes that Microfinance is the only industry still to adopt a 'product centric' approach of trying to sell to customers whatever is produced. He emphasizes the need for the industry to shift to a 'market-driven' approach where the industry can innovate and provide products that their customers need. What the customers need is not only credit but equally a means to be able to save². The possibility to save money in a secure place while also earning a meager interest can help low-income households to gain control over their income

¹ The definition of poor is normally on the basis of Purchasing Power Parity benchmark set by the Millennium Development Goals (MDG) of the United Nations. People living with an income less than \$2 per day are considered to be poor.

² Rutherford (1997) defines savings as "an act of putting aside a small part of current income in order to accumulate the same into a large sum useful for consumption or for investment purpose at a different time"

streams which can in turn smoothen their consumption patterns. **Rutherford (1999)** explains that savings and credit are two sides of the same coin, differing only by the time period at which the lump sum is obtained. Microcredit is not like project financing where repayments are made from revenues streams that the project would generate upon completion. It is serviced the same way as savings is. There is no difference between the two, except in the timing and the relative costs (interest expenditure, inflationary losses and opportunity costs which drive the urgency for credit). However, savings largely differs from credit in terms of the flexibility and control that one has over one's own money.

2.2 The myth that the poor cannot save

There is an unstated assumption that the poor already being financially vulnerable, will not be able to save. This assumption has played a huge role of a deterrent in the minds of both policy makers and financial institutions from focusing their attention and efforts to the mobilization of micro savings from the poor. More than three decades ago, **Adams (1978)** argued that it is incorrect to assume that the poor cannot save. With evidences from rural saving behavior of many economies Adams showed quite high levels of saving propensities among the rural households. He also argues that this inclination to save is negatively affected by rural financial markets that tend to emphasize on micro-credit and thereby nipping the saving tendencies of the poor. One cannot but agree more on this view of Adams. Especially in the past decade, the growth of Microfinance in India, has had a sole focus on Microcredit, and the potential of the poor to save has remained largely untapped.

2.3 Focus on Women as financial controllers

Although, traditionally in the Indian context, women have had significant roles only indoors, as home makers, the scenario is fast changing now. Women in the Indian society across several socio economic groups are standing up to men on several counts, from education to job to earning a livelihood and more so in managing the financial portfolios of their homes. This last facet of women's role in managing money at home assumes more importance in the case of the poor, where several men in poorer households have shown tendencies of being irresponsible with money. **Karlan and Morduch(2009)** state that while the poor are unable to provide for healthy high calorie food for the family, they seem to be able to spend for alcohol and tobacco. In the

Indian context this is very relevant where men of poor households tend to fritter away money in such irresponsible acts. In the light of this, the role of women in managing money and savings at home becomes highly relevant.

2.4 Importance of the saving component for women

Dupas and Robinson (2009) find through their field studies in Kenya that women are ready to save even in accounts that provide them negative returns on savings. That is, they do not mind using the saving services that did not pay them any interest, but also charged substantial withdrawal fees. They argue that if these women did not have trouble saving on their own, they should not have paid the bank for the right to save. The fact that they save despite these charges suggest that they face much higher negative private returns on their money when they save informally. They also find that in the Kenyan context 87% of people took up the savings account that they offered, and 41% made at least two transactions within the first six months of getting the offer. They also state that while they found evidences that savings access helps the businesses of these women, evidence of the impact of credit on their businesses have not been clearly established.

2.5 Regulatory environment for savings in India

The regulatory environment in India has by far been in disfavor of mobilization of savings by Microfinance institutions with the view of protecting the interests of small savers. The background to this being, that of several instances in the past, where private financial institutions have sacrificed the interests of the vulnerable poor. The regulatory framework now allows only formal nationalized and co-operative banks that come under the ambit of the RBI's regulations to mobilize deposits from the poor. Although broadly, the framework is intended to protect the interests of the poor, the lack of percolation of banks in rural regions, among several other reasons, has severely limited the saving levels of the poor (**Rengarajan, 2011**).

2.6 Saving behavior of the poor- Models of savings

Browning and Lusardi (1996) have reviewed nine models, eight of which were originally put forth by **J. Maynard Keynes (1936)**, in an attempt to explain why people save. The factors that proved influential in saving decisions were precautionary, life-cycle (to provide for anticipated needs), intertemporal substitution (to enjoy interest), improvement (to enjoy increasing expenditure), independence, enterprise, bequest, avarice, and down payment.

The allocation of disposable income is a portfolio decision for the poor. One of the forms it could take is of voluntary savings in the form of cash either at home or with an institution. 'Microsaving' is the term given to the offering of such deposit services which will enable the poor to save and withdraw small amounts of money on a regular basis (**Beverly and Sherraden, 1999**). **Sherraden (1991)** posits that accumulation of assets improves household stability, creates an orientation toward the future, stimulates development of other assets, increases civic participation, and enhances the well-being of offspring.

Even long after non-profit organizations began offering credit services, the poor have had to use informal avenues and their own social networks to save money. A study by Collins et al. documented that poor households in Bangladesh, India and South Africa, struggle to find a savings vehicle that can accommodate small periodic contributions and hence turn to friends, family and informal service providers (**Collins et al., 2009**).

There have been various observations about Microsavings. **Robinson (1992)** states that suitable financial instruments will enhance savings among the poor as it will enable them to manage their irregular cash flows by depositing excess and drawing down on it at times of need. Also, the low level of savings among the poor is attributed to inappropriate deposit facilities and institutional structures (**Von Pischke, 1984; Robinson, 1994**). There are also studies which have enumerated the informal avenues available for the poor to save (**Dercon, 1998; Bouman, 1994**). **Deaton (1991)** points out the difficulties associated with the informal sector. There have been other studies in South Africa by the FinMark Trust that has brought out the ability and willingness of the poor to save. In the Indian context, savings options are available in the form of self-help groups (**Sukhbir, 2008**), ROSCAs (**Beatriz, A and J.Morduch, 2005**) and Regional Rural Banks.

However, there are very few studies to understand what influences the regular saving behavior of the poor and of women in particular. In the Indian context, the heterogeneity of people's poverty levels, the gender bias, nature of employment and availability of financial services, creates a platform for region specific exploratory studies. This presents an opportunity to make substantial contributions towards bridging the gap in literature by understanding those independent variables that can influence the regular saving behavior of the poor.

3. Research objective

To identify the factors which influence the regular saving behavior of the poor.

4. Data sources for the study

The data used for the study has been collected through personal field visits to 12 regions in South India and through personal interviews with over 750 women participants. The format for data collection was a mixed method approach, involving both survey techniques and qualitative semi-structured interviews. The data thus collected yielded 612 valid cases for analysis, after being cleaned and subjected to tests of reliability. This paper will focus on the quantitative insights that have emerged and will be briefly substantiated with qualitative observations. The choice of sites is a mix of rural and semi-urban locations. The sites visited are as follows:

- | | |
|-------------------------------|---------------|
| 1. Pothanur (Near Coimbatore) | 7. Perambur |
| 2. Ramanathapuram | 8. T.Nagar |
| 3. Marudhamalai | 9. Dharmapuri |
| 4. Ondipudhur | 10. Namakkal |
| 5. Karuvalur (Near Avinashi) | 11. Red hills |
| 6. Pollachi | 12. Mohanur |

5. Variables considered in the study

A list of independent variables were identified based on previous studies and on consultation with experts in the Microfinance industry. I had the support several Microfinance institutions in South India and with the help of analysts and the field staff who interact with the poor on a regular basis, several potential variables that could influence the regular saving behavior of the poor were identified. From among the many variables identified, a factor analysis was conducted to arrive at the following six independent variables which could influence the regular saving behavior of the poor.

- | | |
|---------------------------|-----------------------------|
| a. Average monthly income | d. Number of Children |
| b. Level of Education | e. Nuclear/Joint family |
| c. Age | f. Daily/Regular employment |

The dependent variable is a categorical variable which measure whether or not people save regularly. In the process of the interviews, people were made to understand that, by regular savings, it is meant, the process of allocating a fixed range of money towards an account, or fund, for the purpose of accumulation and future use, in an interval that is either weekly, fortnightly, monthly or bi-monthly.

6. Statistical tool and methods employed

Statistical analysis was carried out using the SPSS software. Chi-square tests were conducted to reveal the associations between the independent variables and regular saving behavior. Chi-square association test is a non parametric test useful to establish an association between two categorical variables. The frequency dumping in each cell of the cross tabs allows identification of the association between two types of heterogeneous groups and also the nature of cases in that particular cell. Care has been taken to ensure that in each of the cases the minimum expected count restrictions of the statistical procedure were adhered to.

7. Results and Analysis

Chi-square tests were performed to understand the association between the independent variables and regular saving behavior. The results are tabulated below:

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
2.Age *	612	100.0%	0	.0%	612	100.0%
19.Do_you_save_regularly						
4.Level_of_education *	612	100.0%	0	.0%	612	100.0%
19.Do_you_save_regularly						
5.Family_size *	612	100.0%	0	.0%	612	100.0%
19.Do_you_save_regularly						
6.No_of_children *	612	100.0%	0	.0%	612	100.0%
19.Do_you_save_regularly						
7.Nuclear_Joint *	612	100.0%	0	.0%	612	100.0%
19.Do_you_save_regularly						
8.Daily_Regular_employment *	611	99.8%	1	.2%	612	100.0%
19.Do_you_save_regularly						

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19.Do_you_save_regularly						
6.No_of_children *	612	100.0%	0	.0%	612	100.0%
19.Do_you_save_regularly						
7.Nuclear_Joint *	612	100.0%	0	.0%	612	100.0%
19.Do_you_save_regularly						
8.Daily_Regular_employment *	611	99.8%	1	.2%	612	100.0%
19.Do_you_save_regularly						
9.Average_monthly_income *	611	99.8%	1	.2%	612	100.0%
19.Do_you_save_regularly						

Table 1: Case processing summary of the Chi-Square Test

7.1 Association between ‘Age’ and ‘Regular Savings’

The Chi-square tests to reveal the association between Age and Regular saving behavior yields a Pearson Chi-square co-efficient of 50.245 with an associated asymptotic significance of 0.107. Thus, at 5% significance level, the null hypothesis of Chi-square which claims no statistically significant association between Age and Regular saving behavior can be accepted.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	50.245 ^a	39	.107
Likelihood Ratio	56.761	39	.033
Linear-by-Linear Association	.682	1	.409
N of Valid Cases	612		

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	50.245 ^a	39	.107
Likelihood Ratio	56.761	39	.033
Linear-by-Linear Association	.682	1	.409
N of Valid Cases	612		

a. 40 cells (50.0%) have expected count less than 5. The minimum expected count is .25.

Table 2: Chi-Square test to determine association between Age and Regular Savings

The statistical inference indicates that Age does not influence the regular saving behavior of people. This matches with the qualitative statements of field workers representing Microfinance institutions, and that of staff members of the local rural banks, with whom I interacted. They indicated that the age of the people did not influence their regular saving behavior. They had customers across all age groups who saved regularly, and a similar observation about the accounts of those which were dormant without regular savings.

7.2 Association between ‘Level of Education’ and ‘Regular Savings’

The Chi-square tests to reveal the association between Level of Education and regular saving behavior yields a Pearson Chi-square co-efficient of 9.155 with an associated asymptotic significance of 0.01. Thus, at 5% significance level, the null hypothesis of Chi-square which claims no statistically significant association between Level of education and Regular saving behavior is rejected.

		19.Do_you_save_regularly		Total
		Yes	No	
4.Level_of_education	Illeterate	28	127	155
	High School	73	216	289
	Graduate	55	113	168
Total		156	456	612

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.155 ^a	2	.010
Likelihood Ratio	9.254	2	.010
Linear-by-Linear Association	9.138	1	.003
N of Valid Cases	612		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 39.51.

Table 3: Chi-Square test to determine association between Level of Education and Regular Savings

Therefore, the Chi-square test indicates that Level of education has a significant association with the regular saving behavior of the people. This statistical inference also corroborates with the qualitative findings that emerged during the field visits. Poor women who are literate are more conscious of the importance of regular savings in their lives. There could also be a possibility that being literate helps them easily acquaint themselves with the processes involved in savings, like filling up of bank forms, pass book updation, etc. In many instances people revealed that lack of awareness of these processes can intimidate the poor and thereby dissuade them from saving.

7.3 Association between ‘Family Size’ and ‘Regular Savings’

The Chi-square tests to reveal the association between family size and regular saving behavior yields a Pearson Chi-square co-efficient of 38.465 with an associated asymptotic significance of 0.000. Thus, at 5% significance level, the null hypothesis of Chi-square which claims no statistically significant association between family size and regular saving behavior is rejected.

		19.Do_you_save_regularly		Total
		Yes	No	
5.Family_size	1	0	1	1
	2	4	8	12
	3	25	70	95
	4	61	187	248

	5	33	146	179
	6	17	40	57
	7	12	4	16
	8	4	0	4
Total		156	456	612

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	38.465 ^a	7	.000
Likelihood Ratio	34.768	7	.000
Linear-by-Linear Association	5.290	1	.021
N of Valid Cases	612		

a. 6 cells (37.5%) have expected count less than 5. The minimum expected count is .25.

Table 4: Chi-Square test to determine association between Family Size and Regular Savings

Therefore, the Chi-square test indicates that family size has a significant association with the regular saving behavior of the people. This statistical inference is quite intuitive. A family that is larger in size and being supported by either one or at most two regular or daily wage earning members, find it extremely hard to make ends meet. Amidst these situations a regular saving behavior is not a realistic possibility for them. Primary field visits revealed that several of these poor women, many of them who had a formal school education, understood the importance of saving in their economic lives. However, the sheer size of the number of dependent members of the family that they had to support made it impossible to save on a regular basis.

7.4 Association between ‘Number of Children’ and ‘Regular Savings’

The Chi-square tests to reveal the association between number of children and regular saving behavior yields a Pearson Chi-square co-efficient of 8.138 with an associated asymptotic significance of 0.087. Thus, at 5% significance level, the null hypothesis of Chi-square which claims no statistically significant association between number of children and regular saving behavior is accepted.

	19.Do_you_save_regularly		
	Yes	No	Total

6.No_of_children	0	8	8	16
	1	35	98	133
	2	76	248	324
	3	32	96	128
	4	5	6	11
Total		156	456	612

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.138 ^a	4	.087
Likelihood Ratio	7.221	4	.125
Linear-by-Linear Association	.382	1	.536
N of Valid Cases	612		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 2.80.

Table 5: Chi-Square test to determine association between Number of Children and Regular Savings

Therefore, the Chi-square test indicates that number of children has no significant association with the regular saving behavior of the people. The statistical inference seems a bit counter intuitive. However, interactions with the people revealed that the number of children in the household did not significantly influence their regular saving behavior. Most of the children went to government run schools and therefore did not incur significant expenses. The factor that influences saving behavior more is the presence of adult non-earning members in the house, as elicited by the previous independent variable which showed significant association between family size and regular saving behavior.

7.5 Association between ‘Nuclear/Joint family’ and ‘Regular Savings’

The Chi-square tests to reveal the association between living in nuclear and joint families and regular saving behavior yields a Pearson Chi-square co-efficient of 1.310 with an associated asymptotic significance of 0.252. Thus, at 5% significance level, the null hypothesis of Chi-square which claims no statistically significant association between living in joint/nuclear family and regular saving behavior is accepted.

	19.Do_you_save_regularly
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		Yes	No
7.Nuclear_Joint	Nuclear	94	298
	Joint	62	158
Total		156	456

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.310 ^a	1	.252
Continuity Correction ^b	1.098	1	.295
Likelihood Ratio	1.298	1	.255
Fisher's Exact Test			
Linear-by-Linear Association	1.308	1	.253
N of Valid Cases	612		

Table 6: Chi-Square test to determine association between Nuclear/Joint family and Regular Savings

Therefore, the Chi-square test indicates that living in nuclear or joint family has no significant association with the regular saving behavior of the people. This statistical inference can also be substantiated with qualitative observations from the primary data. Those living in joint families, although living under the same roof, usually have more than one earning member. In most cases, there is an earning member for each smaller unit within joint families and these smaller family units in joint families exhibit traits similar to those of nuclear families. However, in certain rare cases, where the eldest of the joint family being the only earning member of the household, the dependence of several non-earning members had a severe impact on the regular saving behavior, as suggested by the variable, 'Family size'.

7.6 Association between 'Daily/Regular employment' and 'Regular Savings'

The Chi-square tests to reveal the association between having regular or daily employment and regular saving behavior yields a Pearson Chi-square co-efficient of 22.652 with an associated asymptotic significance of 0.000. Thus, at 5% significance level, the null hypothesis of Chi-square which claims no statistically significant association between daily/regular employment and regular saving behavior is rejected.

		19.Do_you_save_regularly		Total
		Yes	No	
8.Daily_Regular_employment	Daily	31	144	175
	Regular	66	222	288

	Both	59	89	148
Total		156	455	611

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.652 ^a	2	.000
Likelihood Ratio	21.671	2	.000
Linear-by-Linear Association	19.867	1	.000
N of Valid Cases	611		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 37.79.

Table 7: Chi-Square test to determine association between Daily/Regular employment and Regular Savings

Therefore, the Chi-square test indicates that being in daily or regular employment has a significant association with the regular saving behavior of the people. This statistical inference is also quite intuitive. Those who are employed with a fixed regular income with little uncertainty about their income, are in a better position to plan their expenses and therefore, their savings. While those employed under irregular and daily wage labor are in a position of high vulnerability of fluctuating income. This leaves them less able to manage their expenses and also their savings.

7.7 Association between ‘Average income level’ and ‘Regular Savings’

The Chi-square tests to reveal the association between average monthly income and regular saving behavior yields a Pearson Chi-square co-efficient of 502.283 with an associated asymptotic significance of 0.000. Thus, at 5% significance level, the null hypothesis of Chi-square which claims no statistically significant association between average monthly income and regular saving behavior is rejected.

		19.Do_you_save_regularly		Total
		Yes	No	
9.Average_monthly_income	<5000	0	81	81
	5000-10000	0	350	350
	10000-15000	149	24	173

	>15000	7	0	7
Total		156	455	611

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	502.283 ^a	3	.000
Likelihood Ratio	554.906	3	.000
Linear-by-Linear Association	368.080	1	.000
N of Valid Cases	611		

a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 1.79.

Table 8: Chi-Square test to determine association between Average monthly income and Regular Savings

Therefore, the Chi-square test indicates that average monthly income has a significant association with the regular saving behavior of the people. This statistical inference corroborates the primary data and also a logical extension of income levels influencing the saving levels. People with significantly higher average incomes have exhibited consistently higher and regular saving behavior as compared to those with lesser disposable income.

8. Summary and Conclusion

Among the independent variables that were subjected to tests for association on the regular saving behavior of the poor, Level of Education, Family size, Daily or Regular employment and Average monthly income levels are the factors that influence the regular saving behavior of the poor women in South India. These conclusions, although seemingly common sense driven and intuitive, nevertheless require region specific understanding and associations of statistical significance, to be acted upon by institutions in the design of customized savings products for the poor. The purpose of these findings is to serve as inputs for further research to explore how a proper design of savings product can be accentuate the saving behavior of the poor.

9. Scope for further work

With the background of variables which influence the regular saving behavior, primary exploratory research on the factors in the design of the savings product that will enhance the saving propensities of the poor can be explored. These two together can be valuable inputs to

both financial institutions and policy makers to extend customized savings solution for the poor, thus making the goal and scope of financial inclusion, more inclusive.

10. References

Adams, D., (1978). "Mobilizing household savings through rural financial markets". In: J.D. Von Pischke, D. A., G. Donald, (Ed.), *Rural Financial Markets in Developing Countries: Their Use and Abuse*. Johns Hopkins University Press, Baltimore.

Beatriz, A., & Morduch, J. (2005). *The Economics of Microfinance*. Prentice Hall India.

Beverly, S.G., & Sherraden, M. (1999). Institutional determinants of saving: Implications for low-income households and public policy. *Journal of Socio-Economics*, 28(4), 457-473.

Bouman, F. (1994). ROSCA and ASCRA: Beyond the Financial Landscape. In F.J.A. Bouman & O. Hospes (Eds.), *Financial Landscapes Reconstructed: The Fine Art of Mapping Development* (pp. 375-395). Boulder: Westview Press.

Browning, M., Lusardi, A., (1996). "Household Saving: Micro Theories and Micro Facts". *Journal of Economic Literature* XXXIV, 1797-1855.

Collins, D., Morduch, J., Rutherford, S., & Ruthven, O. (2009). *Portfolios of the Poor*, Princeton University Press, NJ: Permanent Black.

Deaton, A. (1991). Saving and Liquidity Constraints. *Econometrica*, 59(5), 1221-1248.

Dercon, S. (1998). Wealth, risk and activity choice: cattle in Western Tanzania. *Journal of Development Economics*, 55, 1-42.

Dupas, P., Robinson, J. (2009) Savings constraints and microenterprise development: Evidence from a field experiment in Kenya, *NBER working paper series*, Working Paper 14693

Karlan, D., and Morduch, J. 2010. "Access to Finance." Chapter 2 in Dani Rodrik and Mark Rosenzweig, eds., *Handbook of Development Economics*, vol. 5. Amsterdam: North-Holland

Keynes, J.Maynard. (1936) "The general theory of employment, interest and Money" , London.MacMillan 1936

Rengarajan, V. (2011) Comments on *Microfinance Should Have Started with Savings*. Available from: <http://microfinance.cgap.org/2011/09/09/microfinance-should-have-started-with-savings/> (Accessed 13/08/2012)

Robinson, M. (1992). Rural Financial Intermediation: Lessons from Indonesia, Part One. The Bank Rakyat Indonesia: Rural Banking 1970-91". Development Discussion Paper No. 434. Harvard Institute of International Development.

----- Savings Mobilization and Microenterprise Finance: The Indonesian Experience. In M. Otero & E. Rhyne (Eds.), *The New World of Microenterprise Finance* (pp. 27-54), West Hartford: Kumarian 1994.

Rutherford, S., (1999). *Savings and the Poor: The Methods, Use and Impact of Savings by the Poor of East Africa*. MicroSave research report.

Sherraden, M. (1991). *Assets and the poor: A new American welfare policy*. Armonk, NY: M.E. Sharpe, Inc.

Sukhbir, S. (2008). SHG-Bank Linkage programme: Progress and Prospects. In K.G.Karmakar (Eds.), *Microfinance in India* (pp.115-116), New Delhi: Sage.

Von Pischke, J.D. (1984). Toward an Operational Approach to Savings for Rural Depositors. In J.D. Von Pischke, D.W. Adams & G. Donald (Eds.), *Rural Financial Markets in Developing Countries - Their Use and Abuse* (pp. 414-420). Washington: EDI World Bank.

Wright, G. (2008). *Designing Savings Services: The International Experience*. Paper presented at the Workshop on Financial Inclusion: Strengthening Savings Services to Poor, The Livelihood School, BASIX, Hyderabad, May 02-3 2008.