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Factors that act as enablers or roadblocks to savings by the poor a study based in South India

Chandrasekhar Balasubramanian[1]

Abstract: *The paper aims to understand the factors which act as either enablers or roadblocks to saving by the poor. Microfinance in India is rapidly growing, focusing however, only on the credit side of finance while not emphasizing Micro-savings. This study aims to understand the factors that people look for in a savings product that would facilitate their regular savings. The study was based on survey research administered to 700 respondents. Principal Component Analysis (PCA) was used to bring out the factors that the poor look for with respect to using the savings services. The paper brings out factors that are important for the poor and those that act as roadblocks in them being able to save regularly. It suggests that liquidity, and ease of reach are important enablers while minimum balance restrictions, inconvenient timings of the institution act as road blocks to regular savings, among other factors. The paper has strong implications for the design of the right financial products for the poor with a customer centric focus. This has a symbiotically benefitting outcome to the poor and the institution which benefits from regular usage in the long run. The paper fulfills the gap in the understanding of factors that are important for the poor to save regularly.*

Introduction

Savings by the poor has both a macro economic as well a micro economic perspective. While policy makers, regulators and the government have focused on the macro aspect, the micro aspect assumes a lot of importance in making sure that the needs and preferences of the customers, the poor in this case, are understood with respect to their with respect to the financial products and service that are offered to them.

This micro approach has a crucial bearing on the microfinance industry, on financial inclusion, on inclusive growth and therefore also on the macro aspect of savings. The approach to savings through savings rate targets that policy makers set will shift the focus towards savings which build assets while not considering households that might regularly save and consume those surpluses (Gersovitz, 1988) (Horioka, 2006) and thereby do not build any measurable assets (Collins, Morduch, Rutherford, & Ruthven, 2009). Household and individual level data can throw light on decision making process at these levels in savings (Karlan & Morduch, 2010). Thus, it would appear that understanding the micro aspect of savings involves an approach that is not stencil made but rather designed specifically for a region and demography.

Wright (2008) argues 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

[1] Assistant Professor Department of Management and Commerce, Sri Sathya Sai Institute of Higher Learning, Muddenahalli campus, Chickballapur district, Karnataka.
Corresponding author: Chandrasekhar Balasubramanian can be contacted at: bchandrasekhar@ssih1.edu.in
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for the industry to shift to a 'market-driven' approach where the industry can innovate and provide products that their customers need.

Literature review and contextual background

The need for a customer centric approach to savings products for the poor

While the government of India has taken efforts to bring in financial inclusion through a wide spread effort to open bank accounts for every individual, close to 90% of these accounts were dormant as of 2012 (Tyler, Ravi, Bhat, Ramji, & Ballem, 2012). Access to a savings account without facilitating and hand holding the saving process does not ensure usage of these accounts. The current Pradhan Mandri Jan Dhan Yojana (PMJDY) scheme of the government of India focuses on financial literacy initiatives in addition to the opening of bank accounts[1]. Under this scheme as also supported by the RBI's notification to nationalized banks[2] there is an emphasis on banks to open over 630 Financial Literacy Centres (FLCs) which will focus on imparting the knowledge of importance of savings, importance of saving early, and the importance of saving with banks, among many other objectives. These efforts are accompanied by heavy expenditures. Reports indicate that the government spent over Rs.1000 million in advertising about the scheme (Dasgupta, 2014). The nationalized banks have spent over Rs.20000 million in opening the bank accounts as on February 2015[3]. These efforts by the government are also complemented by the operations of NGOs like Sanchayan[4] which work towards financial literacy to help people understand the importance of savings and insurance in their lives, apart from acting as facilitators for the same. In this scenario of multi pronged efforts to bring in financial inclusion it is imperative that the savings products offered are in line with what people require so that the efforts bear economically beneficial results.

Options available to save

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, Morduch, Rutherford, & Ruthven, 2009).

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, 1984); (Robinson, 1994). There are also studies which have enumerated the informal avenues available for the poor to save (Dercon, 1998); (Bouman & Hospes, 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 & Morduch, 2005) and Regional Rural Banks.

Determinants of savings behavior

A few studies have been done in Indonesia, Philippines and in few other countries to find the main determinants of saving behavior of the poor (Vogel & Burkett, 1986); (Bouman & Hospes, 1994); (Robinson, 1994). They bring out the following:

The transaction costs incurred in transforming available surplus into a specific savings option or in liquidating it

a. The liquidity of the savings option
b. The real rate of return of the specific option (real interest rates)
c. The divisibility of savings
d. The safety of the savings option
e. Trustworthiness and confidence, especially when formal savings accounts are considered
f. The possibility of locking money away from relatives and friends and
g. The possibility of using savings to gain access to credit or to other services

Across many countries most of the savings determinants have been found to belong to above mentioned categories although priorities vary from region to region. It is a reasonable assumption to hold this as a background and add required new determinants during the attempt to understand the savings determinants among people of the region that this study focused on. What people look for in a saving service offered to them would also depend upon the motive behind the savings. For instance, those with very low and irregular incomes, primarily look to savings to park their occasional excess incomes so that it will act as a buffer during contingencies. If the primary intention behind savings is wealth accumulation, then safety and interest rates are of primary concern. Von (1984), Adams D. W (1978), Adams D. W (1985) and Vogel & Burkett (1986) emphasize that a positive real interest rate is a major determinant in savings decisions.

Robinson (1994) points out that demand for deposit services is determined by a mix of motives and determinants and therefore has to be met with a mix of savings options that can offer varying levels of liquidity and return.

Most of these studies presented so far pertain to various geographic regions. There is scant literature on this subject in the Indian context, with specific reference to the southern states where the Microfinance movement has taken root. In the Indian context of heterogeneity of people's poverty levels, nature of employment and availability of financial services, there is a platform for region specific exploratory studies. This presents an opportunity to make substantial contributions towards bridging the gap in the existent literature by understanding several ground level realities with respect to factors that can act as either enablers or roadblocks in the usage of savings products and services.

Research Question

With the objective of understanding the need of the customers with respect to saving products and their features, the study aims to answer the following research question:

What are the factors from a client perspective that have to be considered in designing the right savings product or service for the poor?

Methodology

The primary characteristics of the savings product and its delivery which act as either enablers or road-blocks in the use of the savings products and services were constructed in the form of 27 different savings product related questions. These questions have been constructed relying on both the literature and also on the pilot study which was done with 50 respondents to understand people's preferences towards savings products, their characteristics and modes of access and usage.

The Principal Component Analysis (PCA) was used to identify 'constructs' or 'factors' from these different savings product related questions. Principal component analysis is used to cluster those variables which have a common loading on the same component. Therefore, PCA helps in situations where many variables are measuring the same underlying construct (either intentionally or otherwise) to reduce them into a smaller number of underlying factors or constructs.

The use of principal component analysis in this study is to understand from the 27 different 'savings product' related questions, the primary characteristics of the product and its delivery which act as either enablers or road-blocks in the use of the savings products and services. These questions have been constructed relying on literature studies (Phipps & Woolley, 2008) (Bertrand, Karlan, Mullainathan, Shafir, & Zinman), consultation with experts from the Microfinance industries in the regions of study and also based on the pilot study to understand people's preferences towards savings products and their characteristics.

Data and Variable definitions

Survey Methodology

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 female participants. The sample size was chosen in adherence to the requirements of various individual statistical tests that were performed[5]. The regions were chosen as a convenient sample while bearing in mind the need for a representative sample. I was able to identify the people to interview with the help of information provided by local microfinance institutions who knew about the income and background of people. 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 responses for analysis, after being cleaned and subjected to tests of reliability. This study 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 are from the southern state of Tamil Nadu in India:

- Pothanur (Near Coimbatore)
- Ramanathapuram
- Marudhamalai
- Ondipudhur
- Karuvalur (Near Avinashi)
- Pollachi
- Perambur
- T.Nagar
- Dharmapuri
- Namakkal
- Red hills
- Mohanur

Variables considered in the study

A list of saving preferences were identified as variables based on previous studies (Phipps & Woolley, 2008); (Bertrand, Karlan, Mullainathan, Shafir, & Zinman); (Vogel & Burkett, 1986); (Bouman & Hospes, 1994); (Robinson, 1994) ; (Moulick, 2008) (Von, 1984); (Adams D. W., 1978); (Adams D. W., 1985); (Rutherford, 1996) and on consultation with experts in the

Microfinance industry and through the pilot study described above. By saving preferences, I mean and consider those factors that can act as enablers to a regular saving behavior by the poor. I had the support several Microfinance institutions in South India and the variables were vetted by the analysts and the field staff who interact with the poor on a regular basis during their regular bi-weekly meetings. The following variables were identified:

- ✓ Distance of institution from home
- ✓ Need for support in filling forms/Help in transaction
- ✓ Dependence on husband for commuting to institution
- ✓ Minimum balance requirements on accounts
- ✓ Timings of the institution
- ✓ Public transport connectivity to the institution
- ✓ Trust on collection representatives
- ✓ Plans suiting expenditure motive
- ✓ Withdrawal whenever required
- ✓ Safety of money deposited
- ✓ Limits to withdrawal during each transaction
- ✓ Safe commuting to the institution
- ✓ Approachable and helpful staff
- ✓ Limits to number of transactions per month
- ✓ Interest on savings
- ✓ Absence of transaction charges
- ✓ Plan designed to instill discipline in saving behavior
- ✓ Accessible ATMs
- ✓ Pre-closure options on FDs
- ✓ Reputation and reliability of the institution
- ✓ Simple processes
- ✓ Representatives to perform transactions
- ✓ Rate of interest on savings
- ✓ Door step services
- ✓ Compromise on interest on savings
- ✓ Absence of minimum transaction amounts
- ✓ Decision of tenure of savings based on interest paid

Findings and Discussions

Interpreting the results of the PCA

After ensuring the pre-requisites of PCA like linearity between variables (tested using correlation matrix and Kaiser-Meyer- Olkin (KMO) measure and Bartlett’s test of sphericity tests), the interpretation from the results of the PCA are presented below:

Extracting components: *The objective of the PCA is to be able to explain the total variance in the data with 27 variables with as few components as possible. An eigen value measures the variance that is accounted for by a component.*

Among the components that have been extracted a decision is to be taken on those that have to be retained. An eigen value that is less than one suggests that the component explains a lesser amount of variance as compared to the variable and hence should not be retained (Kaiser, 1960). The criterion, 'proportion of total variance accounted for' suggests that 60 to 70% of the variance is to be cumulatively explained by the components that are included. Going by these two criterion 8 components which have eigen values that are greater than one and cumulatively explain 61.78% of the variance are retained for rotation. The rotated component matrix is presented below.

Table 1: Rotated Component Matrix

Component -->	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Husband to take to the institution	**0.872**	0.109	0.226	-0.04	-0.04	0.031	-0.03	0.095
Frequent and easy transportation	**-0.83**	-0.02	-0.11	0.332	-0	-0.01	0.008	-0.07
Pre-closure on FD	**0.686**	0.169	0.251	0.298	0.013	0.131	-0.11	-0.06
Safe lone commuting	**-0.54**	-0.1	-0.08	-0.23	0.426	0.096	-0.09	0.044
ATM	**0.482**	0.006	0.023	0.275	0.469	0.009	0.175	-0.14
Simple process	-0.02	**-0.83**	-0.17	-0.06	-0.03	-0.05	-0	-0.03
Trust collection representatives	0.138	**0.799**	0.071	0.064	-0.02	0.009	-0.02	-0.01
Service should be provided near home	0.232	**0.588**	0.375	0.32	-0.17	-0.02	0.039	-0.1
Plan instilling discipline	-0	**0.484**	-0.03	0.002	0.041	0.18	0.233	0.299
Plans suiting maturity	-0.12	-0.16	**-0.78**	-0.01	-0.05	-0.06	-0.05	0.039
Help in transaction	0.341	-0	**0.731**	0.091	-0.07	-0.01	-0.02	0.096
Approachable and helpful staff	0.345	0.347	**0.67**	0.256	-0.01	-0	-0.01	-0.04
Transaction to be done on my behalf	0.045	0.357	**0.438**	0.268	0.302	-0.08	0.183	-0.3
Withdraw whenever required	-0.13	0.114	0.12	**0.828**	0.005	0.073	-0.01	0.088
Institution near to home	0.02	-0.08	0.032	**0.678**	0.209	-0.11	0.041	-0.03
Decision on tenure based on interest	-0.19	-0.28	-0.07	**-0.61**	0.121	-0.1	-0.03	0.046
Timings are convenient	-0.04	0.038	-0.05	0.221	**0.744**	0.076	-0.1	-0.1
Minimum balance	0.053	0.007	-0.03	0.01	**0.716**	-0.2	0.105	-0.08
Depositing money is safer than keeping at home	-0.21	-0.01	0.173	-0.23	**0.65**	0.129	-0.17	0.248
Absence of transaction charges	-0.11	0.127	0.022	-0.05	0.056	**0.665**	0.469	0.224
Rate of Interest paid	-0.09	-0.06	0.184	-0.06	-0.02	**-0.64**	0.025	0.339
Limits to withdrawal	0.174	0.096	0.168	0.154	-0.04	**0.577**	0.009	0.057
Compromise on rate of interest	-0.07	-0.18	-0.01	-0.16	-0.05	**0.568**	-0.2	0.274
Interest on savings	0.111	-0	-0.33	0.069	-0.01	**-0.34**	-0.13	0.11
Limits to number of transactions	-0	-0.11	-0.1	-0.03	0.005	0.043	**-0.71**	-0.08
Reputation and reliability	-0	-0.5	-0.06	0.049	-0.13	0.182	**0.555**	-0.02
Limits to minimum saving amount	0.073	0.088	-0.07	0.042	-0.07	0.026	0.111	**0.808**

Naming the components extracted

The next step is to ascertain whether the variables which load on to a particular component constitute a meaningful group. The variables which load on to the first component center on the accessibility of the financial service which is defined as 'Reach'. However, the variable measuring the pre-closure options on a fixed deposit is more related to the liquidity aspect of the saving than the accessibility. This variable has the second highest loading on this component and hence a subjective decision is taken to group it under that factor.

The second component centers on variables which indicate the nature of the service in terms of the simplicity of the process, ability of the product to instill discipline in saving among the customers, the trustworthiness of the company offering the service, etc. These variables are grouped as a component which is defined as 'Trustworthy Service'. The variable measuring the reputation and reliability of the institution offering the services, being along the nature of the trustworthiness of the service that is offered, although a part of another component, can be grouped under this component. This variable loads second highest on this component.

The third component has variables which measure the extent to which the customer depends on external assistance to be able to carry out a transaction. These variables are grouped under the name 'Dependence for Usage'. One of the variables which measures the maturity aspect of the savings product, although loading on this component, is more logically a part of the next component which measures the liquidity of the instrument and hence retained as part of that. The fourth component has variables which measure the extent of liquidity of the savings product. These variables are grouped under the name 'Liquidity'. The ease with which the institution can be accessed during emergencies to gain access to a locked savings is measured using the variables that have been grouped under this component.

The fifth component has variables which spell out those factors which can turn out as potential hurdles in the regular savings of the customer. They are grouped under the name 'Concerns for savings'. The rotated component matrix indicates one variable which measures the need for the absence of a minimum saving amount during each of the transactions does not load onto any other component but itself. This variable is also a measure of one of the factors that can be a hurdle in the regular saving behavior and hence included as part of this construct.

The last of the components has variables which relate to the interest rates offered on savings and the transaction costs associated with the availing of the services. Transaction costs are a form of negative returns on savings. Therefore, these are grouped under a construct named 'Returns on Savings'. Thus six meaningful construct have been formed out of the rotated component matrix after adjusting a few variables for meaningful congruence with the construct they are a part of, while ensuring that the regrouped variables have at least a second highest loading on the grouped construct.

Conclusions and recommendations based on the factor scores of PCA

The study through the PCA points to important aspects of the savings product and service that should be addressed for poor people to use these products and save regularly. These recommendations are based on the likert scores given by respondents to each of the variables that constitute a particular construct. The construct values have then been interpreted to arrive at the following recommendations.

- The first important issue is that of the reach of the institution that is offering the savings product. In the absence of regulatory permissions, savings mobilization in India under the formal channel can happen only through nationalized banks and post offices. The geographic penetration of these institutions is not satisfactory in rural regions and hence the lack of ease of reach is one the important factors that acts as a deterrent to save. Solutions range from having more rural branches of banks, to expanding the banking correspondent model, to tie ups between banks and NBFCs who could through their rural presence mobilize the savings on behalf of the bank.

- The second aspect of ease of access includes simplification of banking processes which facilitates even illiterate people to use the services. Financial literacy programs can help towards this end. Even simple pictorial illustrations can make the process of a financial transaction more understandable to the poor.
- The third aspect is to leverage the trust that the poor evince on door step services that agents can provide on behalf of a bank. A local store or a member of a Microfinance institution who goes to the people to conduct his bi-weekly micro-credit payment meetings must be permitted within the regulatory framework to act as a business correspondent on behalf of the bank that can mobilize deposits.
- The study also indicates that the women in India are participating in the financial transaction of the household without having to depend on others for their transportation to the institution and they do not indicate any more dependence than men in the use of these services.
- While the poor understand the importance of not liquidating savings regularly in order to allow it to build to a considerable lump sum, their vulnerable and uncertain financial lives makes them want liquidity in the savings product that they would like to use. This suggests that institutions cannot have heavy withdrawal restrictions on the savings of the poor. While this would mean increase in operating costs for the institution, it has to be absorbed by the bank or government in order to promote the saving behavior among poor. In the long run, however, along with financial literacy the poor can be dissuaded from frequent withdrawals by explaining to them the benefits of compounding and the time element in savings and its growth.
- People are not comfortable with minimum balance requirements that are imposed by banks on their savings account. While they are able to accept a transaction fee levied by the bank when the number of transactions in a month exceeds a given limit, they are not comfortable when told that some part of their savings should always remain in their account and not be withdrawn. This again is a matter of needing to be educated on the mutual benefits to the bank and the individual to allow some money to always remain in their accounts.
- The poor do not pay importance to the returns that they get from the savings services. They value convenient, easily accessible, liquidity ensuring services more than the returns that the savings can earn for them.
- Financial literacy efforts and hand holding is a much felt necessity that the field visits revealed. People need to be educated about the importance of long term savings, of interest rates and compounding and of processes involved in the use of the financial products and services. This hand holding is required until they are familiar with the transactional procedures and begin to save regularly.

Although such tailor made savings product, as also the accompanying financial literacy efforts can prove expensive, it is to be looked upon like many of the developmental initiatives of the government. While the government in India spends billions in subsidies for the poor, a relatively small additional spending to facilitate the regular savings behavior among the poor can pay rich dividends in the long run.

Notes

[1] http://www.pmjdy.gov.in/financial_literacy.aspx - accessed on 02.04.2015
[2] RBI notification RBI/2011-12/590 dated 06.06.2012
[3]http://www.business-standard.com/article/finance/banks-spent-around-rs-2-000-crore-for-opening-accounts-under-jan-dhan-yojana-iba-chairman-115020300116_1.html - accessed on 02.04.2015
[4] http://sanchayansociety.org/
[5] The GPower 3.1 software application was used to determine the required sample size for each of the statistical tests that were performed. The total sample size for the study was ensured to be greater than the largest requirement of sample sizes among various statistical tests that were conducted.

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