

Cost Benefit Analysis :Local Saving Group Vs Bank

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1.INTRODUCTION :

India is home to 21 percent of the world's unbanked adults and about two-thirds of South Asia's (Global Findex Database report 2014). Albeit, government also interfere to address flaws and disappointments in the regulated financial institutions. But subsidized government interventions also come out as a failure mainly due to inefficiency in execution and presence of asymmetry information. No doubt, that problem associated with informational asymmetries, moral hazard, and adverse selection is difficult to interpret for the design of specific policies and institutions. Thus, disappointment with the effectiveness of formal financial systems in fostering economic growth has diverted towards reevaluation of the role of informal financial institution as a medium of mobilization and allocation of resources.

2. REVIEW OF LITRATURE :

Bouman, F.JA. (1976) traces the indigenous saving and credit societies in the third world through various literatures available on it. It reveals that rotating credit association is a worldwide phenomenon, appearing in many parts of Africa, Asia both Americas, the Caribbean area, the middle east and even in early Europe. The paper provides the ingredients of ROSCAs success in diverse cultures and also identifies its multi dimension function. It was suggested that in order to build stronger institutions upon traditional form of savings and credit, an idea of traditionalizing modern institution must be cooperated with the idea of modernizing traditional institutions.

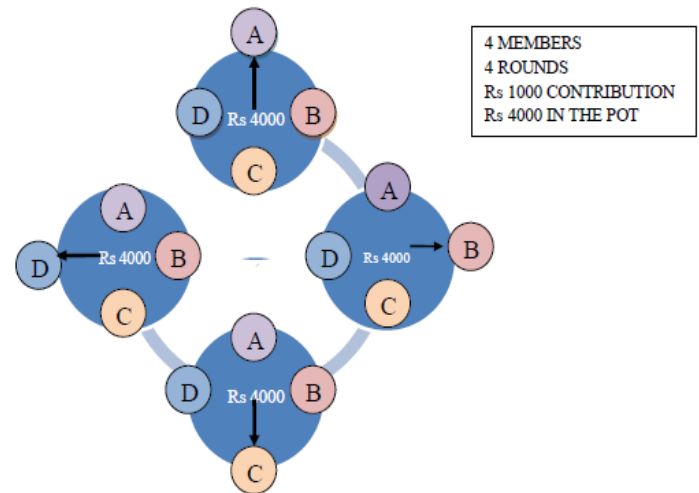
Low, Alaine (1995) conducted a biographical survey of ROSCAs. The major objective of the study was to provide

systematic and up to date literature available on ROSCAs. This survey covers the wide range of literature on these associations regarding various aspects like – its definition, characteristics, geographical spread, membership advantage and so on. The findings of the study revealed that major literature was available in the form of case study, not in the general demise of ROSCAs.

3. ROTATING SAVING AND CREDIT ASSOCIATIONS (ROSCAs):

The term 'rotating credit and saving associations' was given by Geertz (1962) for institutions which have previously been called esusu (small rotating credit associations exist in Africa around the mid 19th century) or have been included in the wider groups of thrift, loan and benevolent associations. But the credit of making this term more famed and mirror image of various indigenous Savings and Credit societies over great part of that broadband of underdeveloped or semi developed countries stretching from Japan on the east through South East Asia and India to Africa,

known by different local names¹ goes to Aderner (1964). According to Aderner "The rotating credit association has been defined



as a group of participants who make regular contributions to a fund which is given, in whole or in part, to each member in turn."

In its simplest form, ROSCAs comprised of four participants, who regularly contribute a pre-agreed amount of Rs. 1000, to a saving pot² each month, will thus eventually receive amount of Rs. 4000 each. After, four months the cycle is closed (fig.1.2).

3.1 Working Process of ROSCAs :

The first collector receives an interest-free loan from all others. While the last in line is only saving money as he extends credit to his fellow members. The others alternate

between debtor and creditor positions. A member saves until he receives the fund, after which he starts to repay a loan in installments. Thus, not only the credit rotates, the saving positions rotate too.

The procedure and methodology adopted from the word kameti and ROSCAs are used interchangeably in this chapter being the first used to refer an institution found in Haryana, and the second to similar institutions all over the world.

3.2 Evaluating Financial Benefits Or Losses Of Joining Kameti

In kameti a participant is predicted to contribute a fixed periodic contribution from the beginning to the end of the cycle. Assuming that the individual will win the last pot (about which the individual will also be 100% definite), s/he will come to be with a saving equal to what s/he'll make a contribution. This individual, nevertheless, have another hazard free and easy option to place or get monetary savings. That's depositing it right into a financial institution periodically. By doing so, he will also be able to get an interest income throughout the time that he hold the money within the bank. If he determined to contribute to kameti, the advantage might be calculated depending on what he's going to do with the pot money he

won from the kameti. But, absolutely, a only financially prompted individual will have to calculate and compute the net amount of money that he can earn from both options and will decide whether to participate or not to participate.

There would be difference between the decision made by those who consider kameti as an saving mechanism and those recall it as a credit mechanism. In both cases, the individual should comprehend the point at which he'll be detached in order that he can come to a decision among the options that he has. Calculating the monetary part here will aid to understand the empirical findings higher. Calculating the financial aspect here will help to understand the empirical findings better.

3.2.1 Kameti as a saving mechanism

Now individual is available with two option that will help to generate earnings on the money whilst he's saving at the same time: both he's going to use bank or he's going to join kameti.

I. No involvement in kameti, put it aside in a bank periodically

This situation is viewed as a standard to evaluate the advantages or loses incurred with the aid of becoming a member of kameti, rather of using bank. As long as the

individual keep on depositing the periodic repayments this alternative is risk free.

In this case, the total money that an individual will have at the end of the n th period can be calculated using the future value of annuity formula.

$$FV_{oa} = PMT \left[\frac{(1+i)^n - 1}{i} \right]$$

Where, FV_{oa} is the future value of annuity
 PMT is value of the periodic payment,

i is the periodic interest rate
(annual interest / number of periods),

n is the number of periods for
annuity contribution

For our case we assume that the individual will save 8,000 Rs every month for 12 months or a year for all scenarios demonstrated below. Given a 6% annual interest rate (the prevailing bank saving interest rate in India), the monthly interest rate will be calculated as $6\%/12$. Thus the Fv of money accumulated at the end of the 12 month will be:

$$= 8000 \left[\frac{(1 + (6\%/12))^{12} - 1}{(6\%/12)} \right]$$

$$= \text{Rs. } 99177.92$$

Of this value 96000 (calculated as $12 * 8000$) is the principal, making the interest income Rs.3177.92. The formula can be modified to find only the interest income as follows:

$$\text{Interest income from annuity} = \{PMT \left[\frac{(1+i)^n - 1}{i} \right] - (PMT * n)\}$$

The periodically accumulated interest is depicted in the following graph.

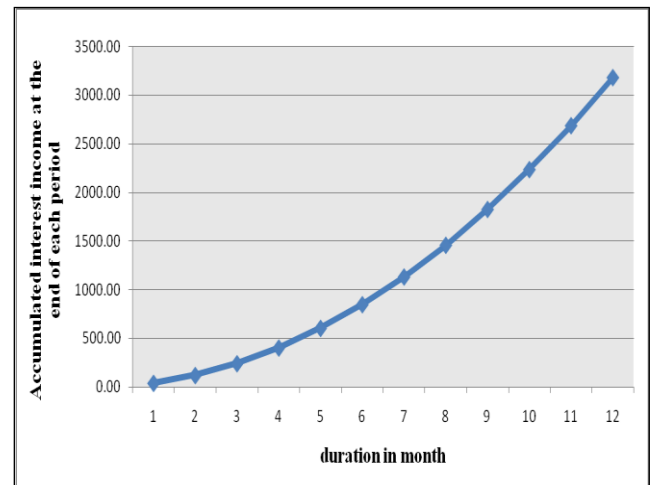


Fig 3.1.1.1 Accumulated Interest

As it is shown in the graph, the accumulated interest will rise at a lower rate at the beginning and rises at higher rate later as the principal as well as compounded interest increases. The accumulated interest income will stand at Rs. 3177.12 at the end of the period.

ii. Involvement in kameti

Having the same amount of money to contribute the same person can also join kameti. The person joins kameti as if he will get the last pot since that is the point where he can be 100% sure about getting the pot (assuming there is no default by members). Consequently, logically he can keep on

contributing the Rs. 8000 periodic contributions regardless of when he will definitely get the pot. Nevertheless, he may get the pot at the first period however he still continue to make a contribution of the periodic payment without touching the pot money he gained. Now the question is what will he do with the pot money? The individual has a options to deposit it in a financial institution right away after he get the pot money at the bank interest rate– in our case 6%

**a) Deposit it in a financial institution
instantly after getting the pot:**

here the individual makes use of both kameti and bank. S/he's going to bring the pot money to deposit in a bank. The interest rate the bank deposit interest rate. As soon as the individual deposited the cash it's assumed that he will not withdraw it until the end of the kameti cycle.

For instance, let us suppose that the kameti has 12 members in which monthly contribution is made. If the individual get the pot at the 3 period, he will deposit it right away and will not withdraw it until the end of the 12 month whilst keep on paying the contribution to the kameti.

This individual joins kameti instead of saving by his own in a bank. If order to

calculate the financial benefit that the individual enjoys by joining kameti, we should know the period that he will get the pot money. The financial benefit (interest income) he enjoyed differs based on the period he gets the pot since the interest is dependent on the time that the money will keep within the bank.

At the beginning of the cycle, however, the individual do not know when he will get it. Therefore, we should calculate the interest income for every possible period. At 6% interest rate compounded monthly, the individual's interest income at the end of the 12 month period given the period where he get the pot money is depicted in the following graph.

As it can be seen clearly from figure, the individual gain will be high if s/he wins and deposits the pot money in a bank in early period. If s/he wins the 1st pot and deposits it immediately, the interest income will be Rs. 5760, while s/he will not have an interest if s/he wins the last pot.

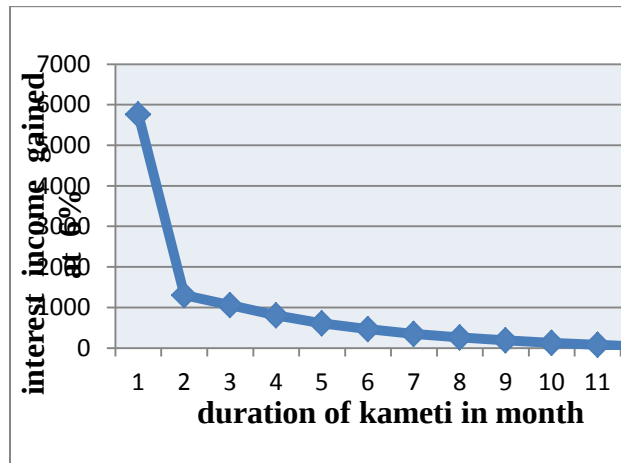


Fig 3.1.1.2 if s/he win the pot & deposit it into a bank account

Now we can compute when the individual will be better off financially if he joins kameti instead of using the bank. It is important to note here is that the gain from the bank if he don't involve in kameti is constant since his deposit is not affected by other parties involved.

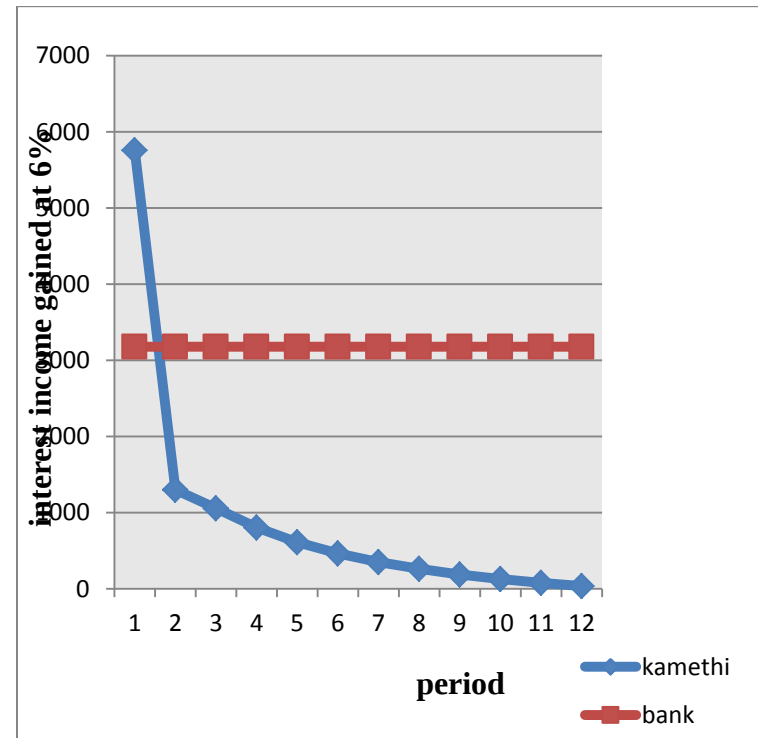


Fig 3.1.1.3 kameti participation vs using bank

from the above graph one can infer that a given kameti participant will be financially better off if and only if he can win the pot at beginning period of the cycle.

4. CONCLUDING THE FINANCIAL ANALYSIS :

The following concluding remark are drawn from the points discussed above :

If the individual is going to deposit the pot money s/he win in a bank at the average bank saving interest rate, the breakeven point is always before the middle. Thus if the individual win before half of the

kameti cycle, s/he will be better off than making an ordinary annuity saving in a bank.

Implications:

- 1 For those who join kameti to be committed or for some other reason and want to take the last pot, the kameti is costing them a value equal to the interest they could have enjoyed by making an ordinary saving in a bank. Net payment to the service they intended to get from kameti, however is equal to:

= (the interest they forgo + the transaction cost they incur in kameti - the transaction cost had they use the bank)

Usually the transaction cost in formal institutions is higher than the informal and hence the net loss after calculating transaction cost will be lower than the interest they forgo.

- 2 For those who use the kameti as a credit mechanism and use the ordinary bank saving as a standard, the net gain they enjoy by joining kameti will be:

= the gain from the investment + the transaction cost in bank - transaction cost in kameti

- 3 For those who use the kameti as a credit mechanism and use bank lending rate

as a standard, the net gain they enjoy by joining kameti will be:

= the interest expense they avoid + transaction cost in bank - transaction cost in kameti

By the same effect of the transaction cost, the net gain from joining kameti will be higher than the interest expense avoided

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