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ABSTRACT
(within 250 words)

The work in the area of microfinance has concentrated on the issue of transaction costs in delivering the financial services to the poor. However, the mechanisms of reducing transaction costs have been mostly in the area of building trusts within local communities and using trust as an effective surrogate for sorting the twin problems of inadequate information and high cost of transactions.

The paper presents a theoretical framework to study the field of microfinance from this point of view. There has been significant literature both in Economics as well as in Behavioural Sciences in examining the role of trust in organisational settings. This paper postulates that the element could be extended to networks like self-help groups. Eventually, it tries to identify some thresholds where the concept of trust and social capital can be used as a surrogate to reduce transaction-documentation costs and when the costs become indifferent to the underlying trust in exchanges.

Date: 29 August 2002 **Signature of the Author**

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Information Assymetry and Trust:
A framework for studying micro-finance in India

M S Sriram

The edifice of intermediation in financial services sector offers the following services.

1. It helps individuals to plan their differing needs of finance at differing points in time by an intervention that helps to balance. In essence the intermediation offers a mechanism of meeting the demand for finances of a person by the person's own supply. This is done by putting away some money (savings) to be used at a future point in time or using the money in the current point with a promise to replace it in future (loans). In either case - the service of intermediation is usually used to manage the time differences.
2. There are several individuals who have these time differences, and the differences across persons are not uniform. Therefore, there is a case where some persons are savers and have no current needs for money and borrowers, who have a current need for money to be met from future savings, or to be taken away from past savings. Thus there is a demand and supply situation where one could get/pay a price for the difference in timing. This creates opportunities for transaction between people.
3. Since full information about who is willing to supply money and who is willing to borrow is not easily available, there is assymetry. A person might have greater amount of information about the needs and reliability of a small circle of people with whom s/he might have regular dealings. But that small circle might not always be enough to take care of the demand supply gap. So there is a need to expand this pool of people with whom the exchange could be carried out. In case the exchanges are carried out with unknown people, there is further information required before the exchange could happen - will the exchange contracts be honoured? If they are not honoured, how could the contracts be enforced? Who in the larger pool of people needs/can supply money and how reliable are they? This gap invites intermediation.

So, intermediation bridges the timing gap within the person's own cash flows, it bridges the gap between the differing need for money at the same time and bridges the gap on reliability and trust to enable exchanges with unknown people.

Banking and financial service institutions intermediate by providing a bridge for the information assymetry in the market. The institutions get a fee for managing this assymetry and managing the risk arising out of the assymetry - this fee is usually the differential between what they pay for savers and what they get from lenders. In India the intermediation system has emerged in response to some failure of the market.

Firstly, the rural economy is predominantly agrarian. So most of the cash inflow for individuals is seasonal - around harvest time. Even non-farm incomes sometimes tend to depend on agricultural income with smoother peaks - consider annual payments made in the form of cereals and pulses to the washerman and the barber. Though barter transactions may be reducing over a period of time, it cannot be denied the overall availability of cash in the system tends to be seasonal where 70% of the population are dependent on this stream of income. This one time income has to be smoothened out till the next harvest.

This means forgoing current lump sum cash for a future regular cash flow. There are not many outlets for this. Even if exchanges happen without intermediation, the exchanges are fraught with risks because the saver is not sure that s/he would get the inflow when needed. This is because the counter party could also be a creature of the agrarian economy and has seasonal inflows and might not have the liquidity to honor the commitments when it falls due. The second part of the risk is that because of the nature of uncertainty involved with agricultural output - in terms of yield and price, the counter party might just not be able to honor the commitments even if the intention is to honor. Thirdly, the residual amounts available from individuals - either for saving upward or for loan repayment on a periodic basis are very small for any direct exchange between individuals. It cannot go on unless there is some pooling. All these elements - seasonality, uncertainty and scale make these exchanges without intermediation almost impossible.

Institutional Intermediation

Firstly, there have been not many organised avenues or products designed to address the savings needs of the rural people. There are not many savings products that address the seasonal needs of income and regular expenses - saving in lumpsum and withdrawing throughout the year. There have also not been many products that encourage collection of small residual sums on a daily basis. While there have been several attempts in the past like the Syndicate Bank's Pygmy deposits, nothing has been available on a large scale and on a sustained basis. Part of the reason might be the very high transaction costs that might be involved in managing the risk and logistics of handling small savings. So there have been instances where rural people use savings agents to pool in small savings on a regular basis to just collect back the principal at the end of a given time period - thereby not earning any fee for foregoing current cash inflows for future inflows. Rutherford (2000) lists instances where the savers actually make an out-of-pocket payment to get this service.

Secondly on the supply side there has been a lot of attempts made by state run institutions to understand and tap the potential in the market. The success rate of institutional intermediation on the supply side has been varying. The All India Debt and Investment Survey indicates a drastic increase in the role of institutional intermediation in the decades of 60s and 70s and a gradual decline in the past two decades (GOI, 1997). But still institutional intermediation in the debt market still occupies a significant position. However, this intermediation has addressed the issue in a skewed manner - because of schematic, targeted lending programmes depending heavily on externally determined scale of finance and subsidies. The institutional lending programmes have not been designed to foster trust, thereby increasing the transaction costs in the process.

The Role of Trust in Exchanges

Trust has a significant role to play in the various forms of exchanges that happen in the financial markets. There has been some attempts in the past to look at various levels and the scope of trust and its effects on defining relationships in terms of economic exchange (Humphrey and Schmitz, 1996). We would see later, that the lesser the trust, the greater would be the transaction costs. Fukuyama (1995) discusses the matter in great detail in his seminal work on Trust. He says that *"..the communities do not require extensive contract and legal regulation of their relations because prior moral consensus gives members of the group a basis for mutual trust."*

He further argues that *"..legal apparatus, serving as a substitute for trust entails what economists call 'transaction costs'. Widespread distrust in society in other words imposes a kind of tax on all forms of economic activity..."*

Table 2-1 gives a brief description of the various types of institutions and a broadbrush picture of the level of trust and resultant transaction costs. We illustrate the role of trust and/or information and its effect on transaction costs in two different scenarios to take this point further. In most parts we would be talking only about the lending activity of rural institutions because savings products have never been the focus of these institutions involved in financial intermediation in the rural areas. Savings if any has only been incidental.

Firstly we consider the Indian scenario where there was a significant increase in the role of formal institutions following the All India Rural Credit Survey of 1954 to a declining role in the decades of 80s and 90s. This decline of formal lending institutions has seen a concurrent (though not matching) growth of informal self-help groups taking charge of the savings and credit needs of rural India. The overall role of self-help groups is still not as significant as the formal credit, but over the past two decades we have seen a significant growth in this sector.

What explains this change in role? As we can see the early decades exhibited a significant interest of the State in the arena of rural credit. The first fivel year plan had a thrust on agriculture and later at every stage, the state was concerned about how the poor and marginal sections of the population are being serviced in terms of loans. Integrated Rural Development Program was one of the largest poverty alleviation programmes that targeted the rural poor.

Table-1 About here.

The Role of Intermediary Institutions in Fostering or Breaking Trust: Its Impact on Exchanges

In essence the State was intervening in a market which was believed to be seeking excessive return because of information asymmetry and trust. The state-sponsored programmes was a signal of trust in the ability of the poorer sections of the society as being bankable. However there was a huge "subsidy" involved in the programme - both in terms of interest rates which was much lower than the prevailing market rates and a subsidy for the underlying asset bought out of the loan. This was a clear invitation for rent seeking by the channels, leading to corruption. As long as the subsidies continued, there did not seem to be a problem about the transaction costs because the increased leakage was in some way buffered up the State subsidy. However, it certainly was eroding the basic tenet of honouring all the clauses of a contract. This meant that even when there was no information asymmetry, the available information was not used in the best interest of the sustainability of the system. It was an artificially propped up system that was to collapse when the subsidies were removed and the transaction costs became real.

While this erosion of trust was happening in the formal system, there were other systematic breaches in the contracts. The breach of trust was happened in small amounts by small instances of waiver of penal interest. It was followed by instances of waiver of interest on loans and later with the waiver of the loans itself, thereby rewarding and making a clean slate of parties who had breached the trust in the first place and penalising parties who had honoured the trust. This was a sure recipe for erosion of any trust in the system.

However, by the time this happened, the people in general were exposed to institutional intermediation. So with a little bit of intervention, it was possible to the poor to see the necessity for exchanges through mechanisms of intermediation if the transactions had to be sustainable in the long run. Also there had to be adequate compensation for exchanges and self-help groups and other microfinance institutions came in to fill in the institutional gap left by the formal institutions. In the process, it is possible that people who were not exposed to formal institutional intermediation also got initiated in the process.

Figure 1 About Here

The new generation microfinance institutions are essentially addressing the problem on the basis of mutuality - sorting out local demand-supply gaps locally and going out of the local orbit for incremental or residual needs. This model uses the information available to the best possible uses and gets trust as a major factor back into circulation. There are various variations of how information-trust is used in microfinance institutions as we shall see later, but there is no doubt that wherever there is ready information, that is being used to reduce transaction exchanges and costs thereof. Over a period of time, aspects such as repeat transactions and documentation are building up institutional memory.

One of the critical elements in fostering trust and information sharing is the relative degree of certainty that the relationship is going be sustainable over a period of time. If the relationship is going to be terminal, then each of the parties would resort to strategic behavior and would never find a reason to foster trust.

Evidence of using trust to reduce transaction costs are reflected in the level and extent of documentation that is done. In case of several self-help group and co-operative group movements, it is possible that the transaction costs which are kept low initially because of informality and access to information is no longer feasible when the movement grows. The necessary element of growth and formalising the systems is increase in transaction costs and developing mechanisms of institutional memory. In a counter example we see how over a period of maturity the nature and role of intermediation itself could change when the type of information availability changes.

It might be interesting to look at what happens to this relationship in mature societies, where the fiscal discipline has not been affected by external intervention by the state. For this we take an instance of the Desjardins Movement of Canada (Sriram, 2000). In case of the movement, the initial stages started off very much like the model for new generation institutions listed in Figure 2-2. In order to ensure that information about the member/borrower is available in a scenario where the group itself was growing bigger over a period of time, there was a credit committee formed. The members of the committee were expected to have information about the borrowers from their area and therefore bridged the information asymmetry to a large extent. Over a period of time, due to the growth of technology and competition, two things happened. The members started getting several alternative institutional intermediaries to bridge the saving-borrowing gap. So there were channels for savings and borrowings with the maturing market. However, the information at the disposal of the credit committee members started shrinking - because transactions could be done off site, could be done at various outlets and with various agencies. Did it affect the "trust" in the system. Quite the contrary. Now, due to technology, member behavior was available on the machine in the form of credit history and behaviour. So the credit committee was in any case becoming redundant.

Figure 2 About here.

Not only this, there was more happening due to revolution in information technology. Information on alternatives for lending and borrowing was available without intermediation of a bank-like institution. Savers could directly invest in equity. Corporations directly borrowed from the retail market, thereby paying less than what they would pay to the bank and also increasing the yield to the individual savers by doing away with intermediation. In this scenario, borrowing institutions reduced transaction costs due to reduced asymmetry of information. The savers increased their yields by taking on the risks themselves - by diversifying their savings across such institutional borrowers. The trend was towards disintermediation in terms of actual pooling and disbursal of cash. Though there would not be a total withdrawal of institutions in the traditional forms of intermediation, the role was being redefined.

So banking institutions are slowly converting themselves into providers of information and alternative channels. The increase in fee based activities and a concurrent reduction in income from fund based activities is a trend that can be seen very clearly in some of the western models. We thus see a redefinition of roles going on, when the level of asymmetry of information reduces. In a mature model where technology enables storage and retrieval of large data, the function of intermediation could be as represented in Figure-3.

Figure 3 About Here

Trust and Transaction Costs

We can safely say that trust - which could also be a function of increased information has significant impact on transaction costs - particularly related to documentation and delay in procuring the loan. When levels of trust is high, the decisions are taken immediately and the documentation formality will be minimal. That is the reason why we see that the money lender in a village can be rightly termed as an ATM (expanded as Any Time Moneylender!). As institutions get more and more formal, the trust will have to be converted from interpersonal trust to institutional trust - which requires recording, storing and retrieval of information - this might increase transaction costs but would certainly make the transactions sustainable and repetitive in nature.

We also need to recognise the limit to growth within which information and trust could be used on the basis of personal knowledge. If we look at most self-help groups that are formed in the country, we would find a certain amount of homogeneity in them. This is not a matter of setting right the caste system, or ridding the community based divide. It is infact leveraging the current social structure to the maximum extent to reduce information asymmetry and foster trust. However, there is the danger when this is a formula taken up by the State for replication. This would assume that groups could be formed as a result of voluntary contract between individuals who make a rational calculation that co-operation is in their long-term self-interest, and may have the danger of assuming that group formation is not culture-dependent. However, it is said that the most effective organisations are based on communities of shared ethical values (Fukuyama, 1995).

We have seen in the above structures that informal institutions and groups manage close knit groups and communities much better than formal institutions. However the opposite is quite true of formal institutions where memory is based on records and not on the basis of interpersonal transactions. Here the institutions are capable of managing diversity. Infact the strength of formal institutions is essentially because they are able to manage diversity and reduce the covariance risk. This also gives scope for rapid scalability and replicability.

As we see institutions achieving certain scale, the political economy of the activity dictates that they go beyond interpersonal trust and move towards systems and procedures. These are represented by contracts, clauses of the contracts and behaviour arising out of such clauses. As long as the standardised clauses are adhered to, there is systemic trust and the institution goes on. For a salaried person to get a loan for a two-wheeler, it is now not necessary to personally know any lender. With organisational systems procedures and learning, such products are now standardised in urban India. Such phenomenon is to happen in rural India, but it does not seem far off, given the right economies of scale and volumes.

Figure 1: Role of traditional institutions of intermediation

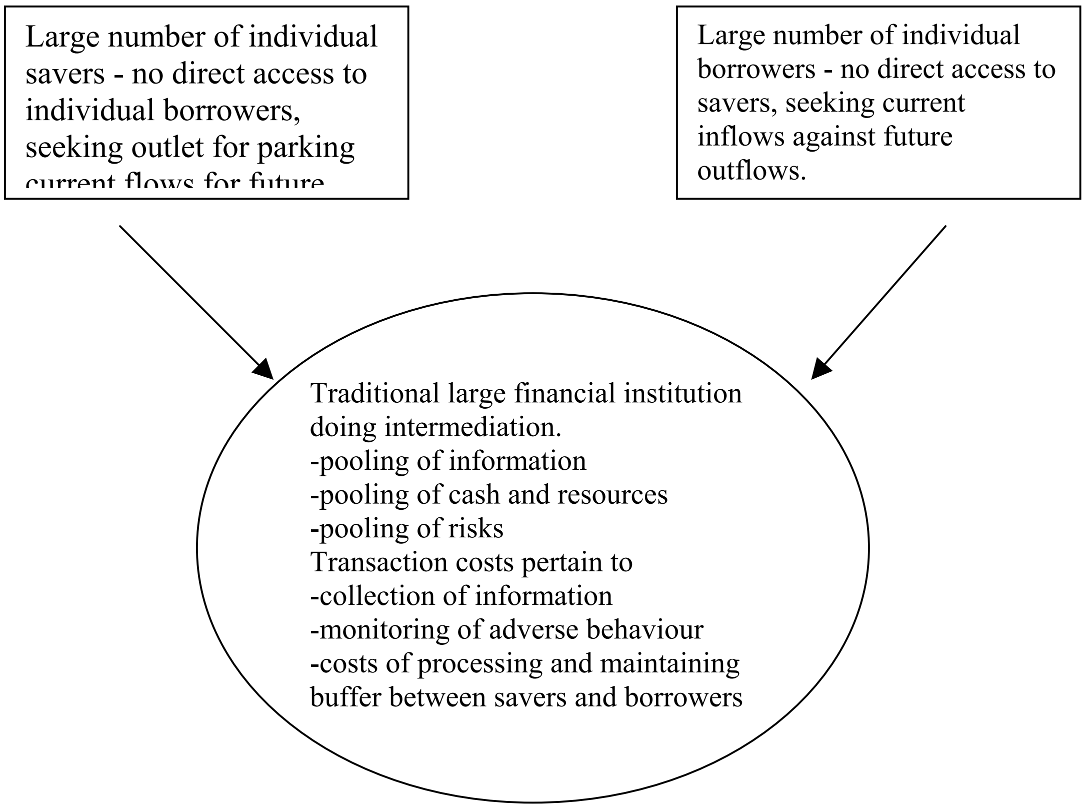

Figure 2: Role of new generation institutions of intermediation - MFIs

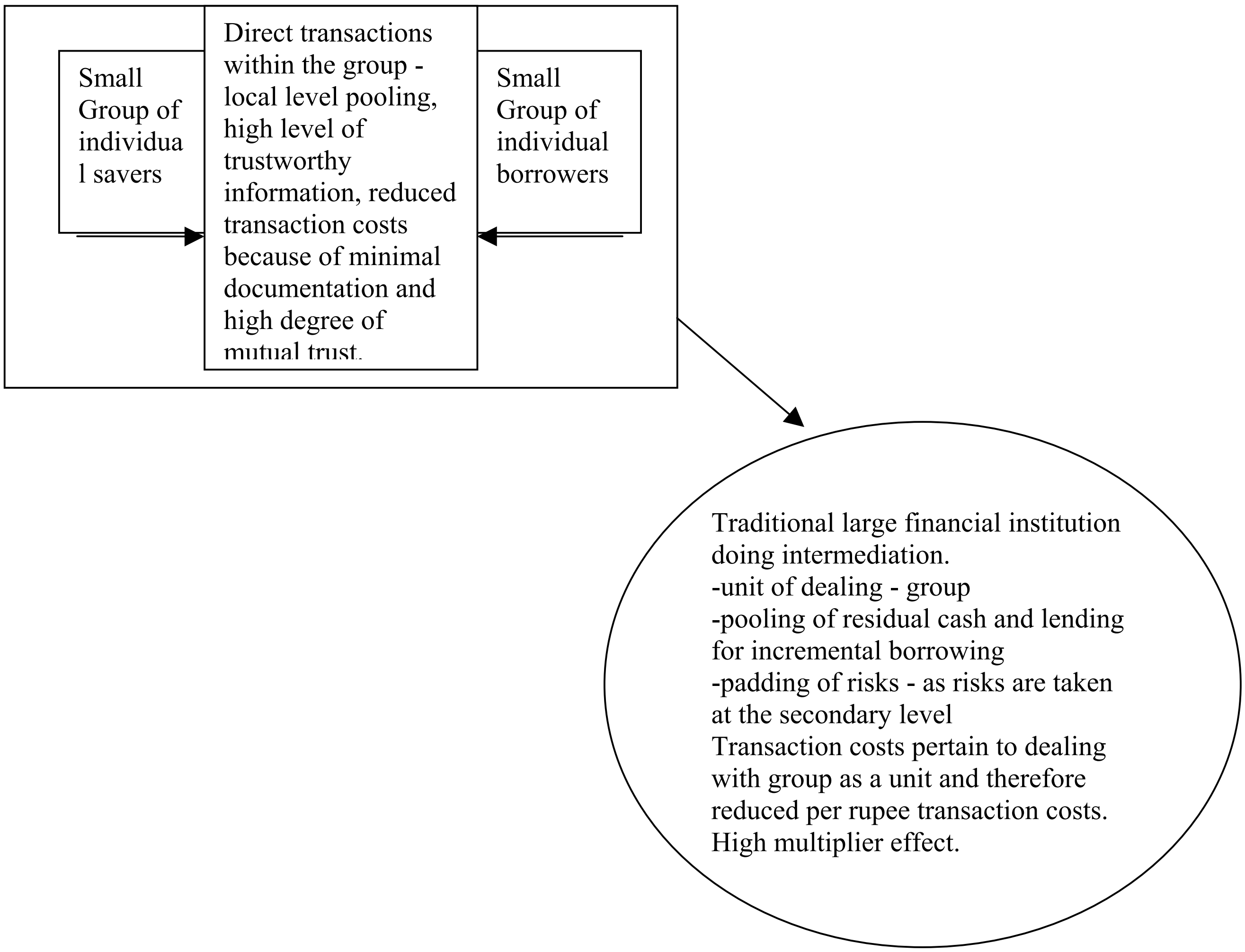

Figure 3 Role of institutions of intermediation in mature societies where technology bridges the information asymmetry gap.

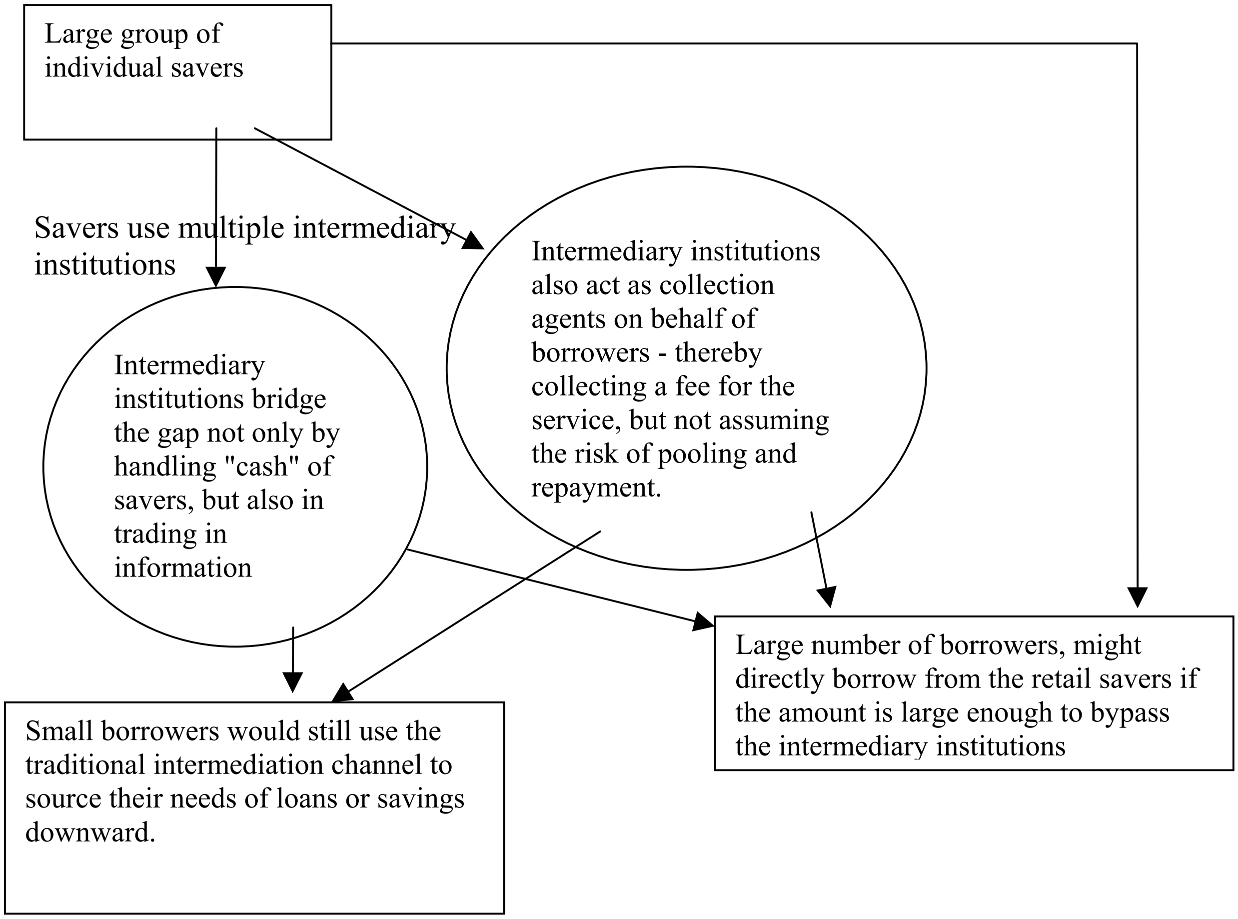

Table 1				
Level of transaction	**Threshold size of transaction**	**Degree of Trust and level of information**	**Documentation and Transaction Costs**	**Effect of breach of trust**
Interpersonal transactions - both the parties are professional intermediaries.	Usually small, consumption smoothening in nature. Usually no costs (interest) or nominal costs involved.	High level of information on the counterparty and therefore high degree of trust	Minimal documentation, usually word of mouth. Negligible or zero out-of-pocket expenses. Negligible processing time for transactions.	Break of relationships - increase in documentation in case of future transactions. However, enough space for condoning non-wilful default.
Interpersonal transactions - but one party is a professional lender/deposit collector, but operating on an informal basis	Threshold higher than informal interpersonal transactions. Interest cost on loans dependent on local conditions and risk profile of the borrower – builds in the cost on inherent risk of non-willful default. Threshold on savings – low.	High degree of information, transactions largely based on trust. Lender is operating in a limited market where information is personally stored without formal recording in books. Very High covariance risk.	Minimal documentation. Negligible or zero out of pocket expenses. Negligible processing time for transactions. Since there is a premium on information (there will be only a few people who know the borrower and also have the resources to lend), interest tends to be high. Flexibility very high.	Drastic action in case of wilful default. In case of non-wilful default, the rent is extracted by a further loan and making the borrower more dependent on this particular source and charging higher risk premium in future transactions.
Transactions with local informal Institutions (Chit Funds, Self-Help Groups	Usually small, restricted to consumption, production effectivisation needs.	High levels of information and trust because of homogeneity and access to each other within the group.	Moderate Documentation - more for the needs of accounts keeping and external reporting than for a decision on disbursal. Low transaction costs, low flexibility because of competing needs of different members. Overall costs vary widely.	If the breach of trust (wilful default) is an isolated case, there would be a tendency to regroup. If the breach is widespread the institution (group) collapses.

Level of transaction	**Threshold size of transaction**	**Degree of Trust and level of information**	**Documentation and Transaction Costs**	**Effect of breach of trust**
Transactions with local formal institutions (co-ops)	Threshold size could be larger given the strength of the institution. Loans could go all the way up to "Diversification Needs" of the customers.	Moderate to High level of information – used effectively in institutions having significant member stake (Agrawal et al, 1994) Used detrimentally where high external 'subsidy' funds are poured in.	Transaction costs have a potential to be low, but are usually not. Information recorded more for external reporting than decision making. Since the funds are cheap, there is excessive rent seeking, therby getting total transaction costs similar to that of informal channels.	Rampant breach of trust in most institutions at both levels - Willful default and breach of trust of individual with the institution. No consequential action on willful default leading to breach of trust by the institution against 'good' borrowers. Effect: rampant sickness in the sector.
Transactions with branches of regional/national level formal institutions	Has the theoretical potential to be high. Infact smaller transactions are usually seen as an obligation.	Level of information is low, because of aspects relating to continuity of the persons at the cutting edge. Degree of trust also low leading to excessive documentation and collateral based lending. However a high degree of trust is usually reposed by the saver when the issue of deposits come up.	Nominal cost of loan is moderate. But documentation requirements, inspection, monitoring the usage - all high. Procedures are inflexible and elaborate to suit internal controls of the lending institution. Usually time consuming. This leads to very high transaction costs (delay or corruption) making it comparable to any other expensive sources in the market.	No effective action on breach of trust by willful default. Excessive documentation makes the transactions impersonal and there is no effective mechanism of converting the documentation into encashable collateral.

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