



Institute for Financial Management and Research

Centre for Micro Finance

Working Paper Series No.30

September 2009

Who are the micro financiers?

A study of social network brokerage in Indian microfinance institutions

Prasanna Kannan

E-mail: pk336@cam.ac.uk I thank the Centre for Microfinance Finance (CMF) at IFMR for hosting me during my field visits and for helping implement my quantitative studies and also my supervisor Prof. Jaideep Prabhu for his guidance. I especially thank Prof. Martin Kilduff for his valuable suggestions and Theresa Chen, Ceren Baysan and Vaishnavi Prathap at CMF for administering the survey. The views expressed in this paper are entirely mine.



Contents

1. Introduction.....	2
2. Literature review and Hypothesis: Microfinance, Social Networks and Brokerage	3
2.1. Microfinance and Social Networks.....	4
2.2. The ‘Broker’.....	8
2.3. Contextualising brokerage into the microfinance setting	11
2.4. Propositions: The Social Pyramid, Brokerage and ‘Tertius Nectens’	16
2.4.1. The Social Pyramid	16
2.4.2. ‘Tertius Nectens’	20
2.4.3. Overall hypotheses	21
3. Research Methodology	22
3.1. Qualitative methods	23
3.2. Quantitative methods	24
4. Results and Findings	24
4.1. Qualitative findings.....	24
4.1.1. Meeting at the Centre for Microfinance, IFMR, Chennai	25
4.1.2. Visit to Microsoft Research Laboratories, Bangalore	26
4.1.3. Visit to the Ragigudda urban slum, Bangalore	27
5. Quantitative findings.....	30
6. Some observations	33
6.1. From qualitative findings.....	33
6.2. From quantitative findings.....	35
7. Conclusions.....	37
8. Appendices.....	39
8.1. Appendix 1: The Context - Microfinance in India.....	40
8.1.1. Historical Overview	40
8.1.2. The effectiveness of microfinance delivery and brokerage	43
8.1.3. Key players in the Indian microfinance domain	44
8.1.4. Current models in use for microfinance delivery.....	48
8.2. Appendix 2: ‘Tertius Nectens’	51
8.3. APPENDIX 3: My notes from the field.....	55
8.3.1. Meeting at the Centre for Microfinance (CMF) of the Institute of Financial Management and Research (IFMR), Chennai, on the 18th of March, 2009.....	55
8.3.2. Meeting with Mahesh, Managing Director of Commonwealth Microfinance (India) Ltd., in Chennai on March the 19th, 2009	57
8.3.3. Visit to Microsoft Research Labs, Bangalore, on the 25th to 26th of March, 2009	58
8.3.4. Visit to IFMR Trust field sites near Thanjavur, 30th of March 2009	61
8.4. APPENDIX 4: Survey administered to SHG members near Thanjavur.....	61
8.5. APPENDIX 5: Detailed quantitative methods and findings.....	65
8.5.1. Detailed methodology: Generating a Cognitive Social Structure (CSS)	65
8.5.2. Data collected by field researcher Vaishnavi Prathap during visit	67
9. Bibliography	70

“When my children cried at night from hunger, I felt like killing myself”, recalled Saraswathi Krishnan who lives in India. Saraswathi’s husband, an unskilled wage labourer, earned very little and often squandered what little he made on alcohol. Eventually, when the roof of their tiny hut was about to collapse, having no jewellery or other assets to pledge for a loan to repair it, Saraswathi sold her seven-year-old daughter into bonded labour to a local merchant for 2,000 Indian rupees (about US\$40).

“My little girl complained to me daily that the merchant abused her. His family would eat food in front of her and give her none, she remembered. Five years later Saraswathi joined Working Women’s Forum, a women’s self-help and microcredit program based in Madras, India. With her first loan she paid off her debt to the merchant, freeing her daughter, who now attends school, and began a small vegetable selling business.

With a second loan she bought her sixteen-year-old son a loom. Previously he would bring home around \$5 per month doing odd jobs for wealthy families. With the loom, he can weave two saris per month, earning him \$25 per month. Now Saraswathi’s vegetable business is thriving as well, thanks to her hard work and the training she has received from the programme. She is glad to be able to give her children opportunities. With the family’s new sources of income, Saraswathi has a sense of pride and security she never before experienced. ‘I will never mortgage my children again; they will be educated. Now I see to it that my husband is good and does not beat me anymore’.”

— Excerpt from the Working Women’s Forum, India, from Daley-Harris (2002)

1. Introduction

The passage on the previous page illustrates the idealised picture often painted of microfinance, particularly micro-lending to the world's poorest. Saraswathi's story is one of many uplifting tales of how microcredit has helped to lift families from extreme poverty, something mere charity could never have accomplished. This is the central attraction to microfinance – that by exporting the Western model of capitalism and an unflinching belief in free markets, we can help to grow what celebrated academic C.K. Prahalad (2006) terms 'the fortune at the bottom of the pyramid'.

The power of microfinance is generally unquestioned by international development scholars¹. However, it is not without its detractors, with many claiming that microcredit does not alleviate poverty (Morduch, 1999; Leach & Sitaram, 2002; Karnani, 2007), although most point to institutional failures, rather than the concept itself (c.f. Robinson, 2002).

It is unsurprising therefore, that most research on the 'microfinance movement' (Karnani, 2007), examines how the successes of individual cases can achieve scalability, and how they can be more widely disseminated to the extremely impoverished. However, few seem to question the true impact of microlending, particularly in one key aspect – in terms of social structure. A question that has been rarely asked within the microfinance literature is whether such initiatives are helping to truly alter the social dynamics in such impoverished regions, or if it simply reinforces existing configurations, particularly with the key intermediaries concerned. The central question of this thesis is therefore the following: who are the microfinanciers, the intermediaries in microfinance programmes, and are they the ones who actually stand to benefit from the phenomenon? Are they simply those who have always held power and influence in such regions, and if so, should we aim to replace them entirely with new schemes and networks, or attempt to co-opt them into participating in such microfinance initiatives?

A crucial tool in examining this question is social network theory, particularly its conceptualisation of 'brokerage'. Social network theory has long examined how certain actors, who act as the bridge between groups of people, stand to benefit from their unique role, and therefore strongly influence those around them (c.f. Granovetter, 1973). Although

¹ See the World Bank Study by Khandker (1998), where they find direct correlations between microcredit and, amongst other things, education and even the circumference of the limbs of children, and their heights

some work has been done in examining the social networks involved in microfinance programmes, little has been done upon this idea of brokerage – of who the key middlemen or women are in this process.

This paper will therefore be structured in the following manner. I will begin with a thorough literature review, where I will examine extant literature on social network brokerage, and attempt to build a theoretical conceptualisation with which to make a number of propositions on the ‘microfinancier’. I will then combine my own field notes – those that I compiled in an extended field trip to India – with other data I obtained through those on the ground, to illustrate the true nature of brokers within the microfinance setting. Finally, I will draw a number of conclusions from my work and attempt to directly address the questions put forward at the outset.

An issue to mention first hand is that due to the unique challenges posed with researching microfinance; only a prolonged exposure within the field can help accumulate the quantitative data that would truly answer the questions in this essay. I will go on to focus upon a particular level of analysis with my fieldwork and it is therefore hoped that this paper will provide a decent platform for a doctoral thesis.

2. Literature review and Hypothesis: Microfinance, Social Networks and Brokerage

For those unaware of the context within which this thesis is based, that of microfinance in India, it is strongly recommended that you refer to **Appendix 1 of this paper**, where the topic is clearly outlined. To not blur the focus of this essay, I will now review social network relevant to the microfinance setting, before building my hypotheses; however, to ignore the special case of India and the historical basis of microfinance in the region, as well as the key institutions involved and the current models for microfinance delivery would be to trivialise the issue. It is to avoid such simplifications that a detailed case study and thorough literature review of the setting is included in the aforementioned appendix.

2.1. Microfinance and Social Networks

As mentioned in the case study (Appendix 1), social network theory has been applied to analysing microfinance programmes. However, the majority of such applications have focussed upon the notion of ‘social capital’, and how this can be used to explain the informal structure of solidarity lending. Moreover, in doing so, the notion of social capital has been blurred within the microfinance literature, although this is a criticism that can be levied at social network scholars as well (c.f. Portes, 1998).

In this section, I will recap the ways in which social network theory has been applied thus far in analysing microfinance networks. In doing so, I hope to expose gaps within the extant literature, and thereby go on to develop my own conceptualisations in the succeeding sections. As Woolcock (1999) mentions, evaluations of group-based microfinance programmes, “have been dominated by concerns with impact assessment, programme replication and financial sustainability”. Few have examined the social network dynamics of such schemes, and even fewer on the notion of brokerage, as I hope to do in this thesis.

As highlighted, the majority of social network analyses of microfinance focus on social capital. As Chloupkova & Bjorn (2002) state, “social capital can be defined in a multitude of ways”, but within the microfinance domain, it is generally used to provide a warm and picturesque background for the ideals of group lending, unlike perhaps, network brokerage or centrality, which may seem ruthless in comparison.

However, much like the social networks field as a whole, the concept of ‘social capital’ has entered a definitional debate within the microfinance literature. Kanak & Iugini (2007) postulate that, “social capital can be split into three connecting strands: bonding social capital, bridging social capital and linking social capital”, with Woolcock (1999) claiming that the poor have little of the latter. Woolcock & Narayan (2000) claim that social capital has four dimensions, “that of communitarian, networks, institutional and synergy”, whereas Olomola (2002) sees it as the sum of the social homogeneity and extra linkages of solidarity groups. Further conceptualisations, such as Mayoux (2001) and Preker et al (2002) are shown in Figures 1 and 2 below:

BOX 1: SOCIAL CAPITAL – FRAMEWORK AND GENDER

DIMENSIONS OF THE DOWN SIDE

Social Capital: A Differentiated Framework

Forms of social capital

- **Rules and norms** which facilitate formation and continuance of associations and relationship
- **actual associations and relationships** between people and groups of people

Dimensions of social capital

- horizontal linkages: involving people of like status and interests
- vertical linkages: linking people of unequal status and complementary interests
- macro-level linkages: rules, norms and associations at the macro level which structure macro-level horizontal and vertical linkages

Figure 1: Social capital according to Mayoux (2001)

Social capital	<ul style="list-style-type: none"> • Community links Between extended families, local organizations, clubs, associations and civic groups
	<ul style="list-style-type: none"> • Network links Between similar communities (horizontal) and different communities (vertical)
	<ul style="list-style-type: none"> • Institutional links To communities' political, legal and cultural environments
	<ul style="list-style-type: none"> • Societal links Between governments and citizens through public/private partnerships and community participation

Figure 2: Social capital according to Preker et al (2002)

Clearly, within the microcredit literature, scholars seemed to have blurred the concept of social capital into illegibility. In the microlending context, it seems to encompass various aspects of social ties which are far more discrete in the network literature (c.f. Scott, 2000). This is an issue I hope to address with my own conceptualisations, but also by building upon the following points that I will now review.

Generally, the definition of social capital in the microfinance domain tends to reflect Putnam's (1993) versions, that of "features of social organizations, such as trust, norms and networks, that can improve the efficiency of society by facilitating co-ordinated actions" This has been used to show how relationships within SHGs provide an 'invisible collateral' for

loans (Ghatak, 2002), can lead to ‘learning spillovers’ (Chloupkova & Bjorn, 2002), and how (as Gomez & Santor, 2002, summarise), “borrowers can utilise their social capital to overcome many of the problems associated with asymmetric information in credit markets (e.g., adverse selection, moral hazard, state verification, and contract enforcement).”

It has also been claimed that microcredit can help to build social capital (or what Anderson et al, 2000 term ‘local common pool resources’) in deprived areas and that solidarity lending can lead to strategic group decision making which leads to improved yields for the poor (Ostrom 1990;1994). As Larance (1998) claims, microfinance institutions both “rely on, and create bridging social capital”, and that these can also cause ‘network externalities’ which help benefit actors in indirect ways, by expanding their networks and improving their ‘social language’ (Deininger & Olinto, 2000, though Rogaly et al (2004) argue that this diminishes with scalability). Bjornskov (2000) goes on to summarise that this is largest at semi-formal institutions, as summarised in Figure 3 overleaf.

Microfinance scholars feel this effect to be key, because, as De Weerd (2005) shows, the poorer section of impoverished communities simply have less dense networks than those around them. This has led to the development of numerous programmes that are aimed at increasing social capital, such as DFID’s ‘social protection’ scheme (c.f. Norton et al., 2000; Devereux 2001a), the World Bank’s ‘social risk management’ programme (Holzmann and Jørgenson, 2000) and numerous organisations’ work on ‘informal safety nets’ (c.f. Devereux, 2001), moves that Molyneux (2002) labels as ‘naive’).

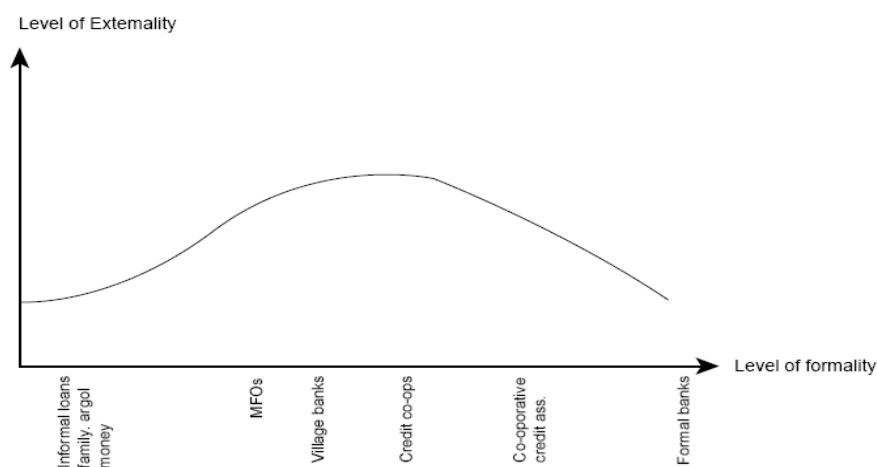


Figure 3: Level of network externalities from bridging social capital compared to level of formality of institutions involved (from Bjornskov, 2000)

These schemes have also been built upon empirical evidence that shows that SHGs act as risk sharing networks, by utilising horizontal associations to lower some information and transaction costs (Stiglitz & Weiss, 1981; Besley & Coate, 1995; Conning, 1998; Morduch, 1999). Karlan (2002) found that members within the same social network tend to have better repayment rates than those that are not, and Allen & Babus (2008) found that successful risk-sharing networks are not correlated with income or occupation, but rather age, social demographics and geographical proximity, the latter of which they postulate to be a direct translation of Granovetter's (1973) 'weak ties' argument.

Such themes have been used by many to utilise social capital as the explanation for the relative stability of SHGs. Many, such as Allen & Babus (2008) claim that self-monitoring of SHGs and peer pressure exerted by group members is an explanation for how repayments are maintained, and therefore constitute a form of 'social collateral', although this explanation is disputed by some (van Baastelar, 2000; Anderson et al, 2002; Silvey & Elmhirst, 2003; Gine et al, 2006).

Copestake (2003), in his report for Oxfam GB, firstly acknowledges that, "the proliferation of networks, in microfinance, as in other fields, constantly outpaces attempts to document, analyse, and rationalise them". He also points out that though networks can be formal or informal, temporary or permanent, and that in the microfinance context, it is important to acknowledge that they can be, "**both horizontal and vertical**", a notion first acknowledged with social capital by Coleman (1988).

The importance of this becomes clear when one considers the 'special relationships' that loan officers and other intermediaries form with SHG members (Ito, 1999). Matin & Hulme (2005) labels this the 'patron-client' relationship in the microfinance setting, and although these are slightly waning under the influence of commercialisation (c.f. Devereux, 1999), such relationships are important, particularly in the Indian subcontinent.

Ito (2003) focuses on such relationships to present her scathing critique of 'social capital' in microfinance, which some regard as the 'missing link' in development, whereby state intervention is substituted with social intermediation to overcome market imperfections

(Grootaert, 1997). This view is supported by Serageldin & Grootaert (2000), who see social capital as the key in overcoming market and state failures to allow group lending.

Ito (2003) however highlights her own fieldwork, which found that the notion of joint liability and social collateral is rarely tested (c.f. Jain, 1996; van Bastelaer, 1999), that the special relationships of loan officer and other intermediaries are perhaps abused for individual gain and that moreover, the power of bank workers leads to a situation where “borrowers’ relationship to them begins to look like a typical ‘patron-client’ relationship prevalent” in much of the subcontinent. She argues that social capital is used in far too a positive light in the microfinance domain, and that it is “too ambiguous and broad to define the type of social intermediation necessary to provide effective financial intermediation” (c.f. Bennett 1998).

Rankin (2002), on the other hand, argues that although, “social capital is not just the sum of the institutions which underpin a society – it is the glue that holds them together – we nonetheless acknowledge that the “capital” in social capital is not innocent” Furthermore, she argues that microfinance, like social capital, coincides with “the recent resurgence of neoliberal economic ideology”, and therefore its network effects must be monitored more closely.

Acknowledging this ‘dark side’ of social capital can lead to some startling findings. Ackerly (1997) and Fernando (1997) find that group self-selection in South Asia leads to the exclusion of the “poorest of the poor”, and that ‘peer monitoring’, a backbone of microcredit policy, can actually lead to conflict and alienation of group members. Rankin (2000) finds similar effects with caste and ethnic identities, which mitigates group solidarity across socio-cultural differences. Rahman (1999) finds that women sometimes use local moneylenders to meet the rigorous schedules of microfinance payments, thereby recycling debt and furthermore, the effect of microcredit on female empowerment seems somewhat dubious, with empirical findings mixed (Goetz and Gupta 1996; Pitt et al, 2006).

2.2. The ‘Broker’

The previous section was a recap of social network theory and how it has been applied in analysing microfinance networks. Relatively few have focussed upon network brokerage;

before recapping these, I would like present a brief review of the concept of brokerage, so that it may become clear why it is central to this paper.

Ever since Granovetter's (1973) seminal paper on the 'strength of weak ties', and even as far back as Simmel's (1950) 'tertius gaudens' (the third who binds), as well as the famous experiments by Travers & Milgram (1969) which helped coin the phrase 'six degrees of freedom', the concept of the 'broker', or an actor that is the key link between disparate groups of people has been one that is central to social network theory. Recent conceptualisations such as Burt's (1992) structural holes and Obstfeld's (2005) 'tertius iungens' have helped strengthen our understanding of the broker, and has helped to highlight their importance to the networks in which they operate. Clearly, the concept can greatly help our understanding of intermediaries in microfinance networks, and so I will proceed to review it carefully before placing it into context.

As Boissevain (1974) highlights, a common view of 'the broker' is of, "a professional manipulator of people and information who brings about communication for profit". Scott (2000) echoes this view by firstly speculating that brokerage is a function of betweenness, before characterising them as, "agents... with a potential for control over others". Coleman (1988) and Podolny & Baron (1997) present a similarly cynical view of brokers by making the claim that brokerage is fundamentally incompatible with social capital. However, brokerage can take various forms, as illustrated in Figure 4 overleaf, and therefore it must be placed in the correct setting before reaching any conclusions on its impact upon networks overall.

A reason for this critical view may be because of the advantageous and privileged position brokers occupy, a fact that has been exposed time and time again in networks literature (c.f. Burt, 1992). Cook et al. (1983) support this empirically by finding that brokerage is a far more powerful position than network centrality, which may actually constrain one's influence. Diani (2005) echo these findings, and postulate that brokers can be crucial in 'movement networks' and can be vital actors in influencing social change. Thurmaier & Wood (2002) find a similar influence of brokerage and their 'picket-fence regionalism' in government agencies, Garton et al (1999) find a similar impact of brokers when analysing the

internet, and Coles (2001) even shows how influential brokerage can be in the setting of highly sophisticated crime networks.

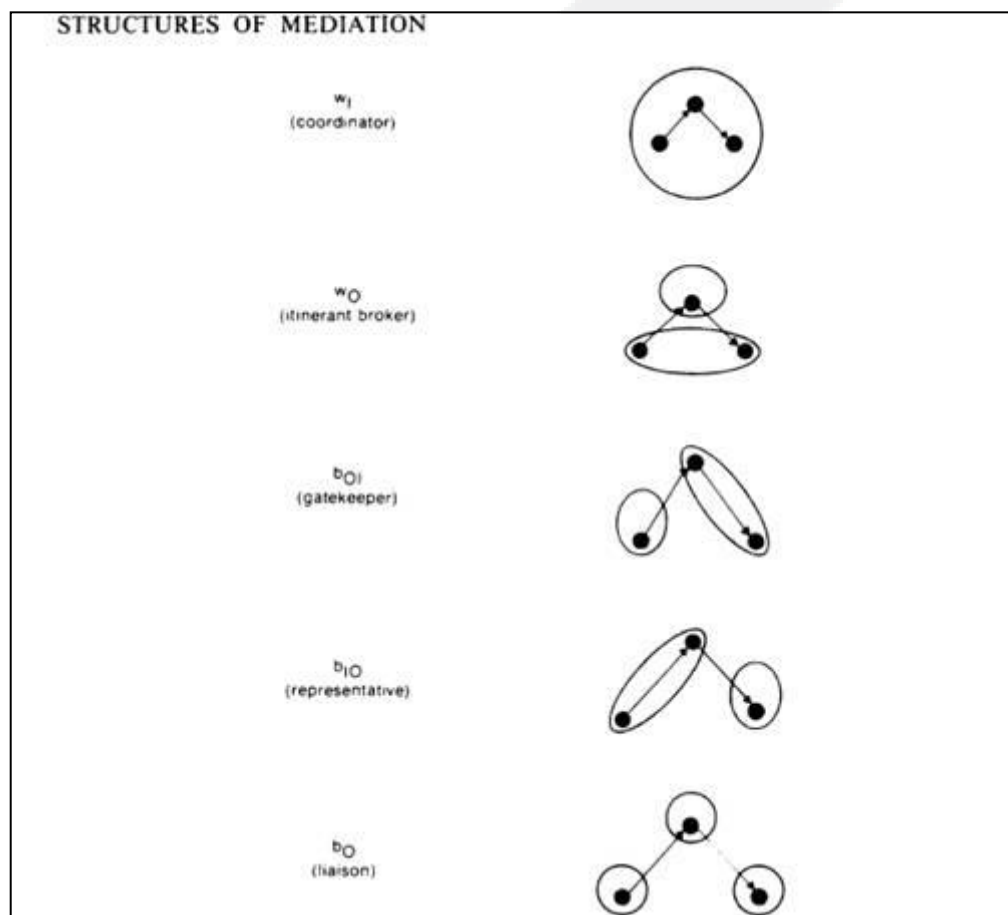


Figure 4: Graphical representation of five types of brokerage relation, reproduced from Gould & Hernandez (1989). Solid points are actors; ellipses correspond to subgroup boundaries. The top point in each triad represents the broker

However, as Oh & Kilduff (2008) point out, although there is much work on the effects of brokerage, there is relatively little on what elevates certain actors into such a position. As Mehra et al (2001) and Ickes et al (2006) further highlight, a forerunning explanation is that there is a relationship between the level of 'self-monitoring' an actor engages in and their probability of attaining a brokerage role. However, as Burt et al (1998) show, there are numerous personality correlates that may explain why some actors become brokers and some do not. This issue becomes even more important in the microfinance context, as hierarchical differences between the poor and intermediaries means that it is even more critical to identify what allows certain actors to attain brokerage where others do not.

Considerably more has been written on the link between brokerage and social capital. However, as Portes (1998) mentions, the concept of social capital has become 'something as a cure all' in networks literature, and has led to a considerable definitional debate (c.f. Foley & Edwards, 1999). Furthermore, the term has also become somewhat blurred within the microfinance literature, where its usage is ubiquitous (see Section 2.1). The general view is that the higher the level of brokerage in a network, the less beneficial it is to all other actors, and therefore, the less social capital generated for the entire network (c.f. Burt, 1997; Oh et al, 2006). This view would indicate that the extent of brokerage should be limited as much as possible within microfinance networks.

However, others such as Bebbington (1997) disagree with this perspective, and claim that brokers can't affect collective social capital, whereas Taube (2004) argues that brokers determine the social capital of the network, as they are the key connecting bridges. Huysman & Wulf (2006) claim instead that the strategic placing of 'socio-technical brokers' can help disseminate knowledge within organisations, whereas Kilpatrick & Falk (2001) and Maloney et al (2004) claim that brokerage and leadership are important factors in maintaining networks. This theme is resounded by Lowndes & Wilson (2001) who postulate that "brokers could help to steer governance" in particular settings, as well as Lusseau & Newman (2004) who found that brokers vital in maintaining cohesiveness of communities, albeit with bottlenose dolphins off the coast of New Zealand.

As seen from the literature reviewed above, there has been little work on why certain actors become brokers, with the focus within related literature generally upon the power brokers hold and how this can be manipulated. There also seems to be a degree of debate over whether brokerage is beneficial to the network as a whole, though the general consensus is that it is not. These questions clearly merit further scrutiny within the microfinance setting and I hope **to develop my own paradigm of brokerage** (Section 3.4) which I feel can help unravel the research questions at hand.

2.3. Contextualising brokerage into the microfinance setting

Now that we have reviewed how social network theory has been utilised in terms of microfinance networks, and the literature relating to the concept of brokerage, what relation does that bear to the central questions of this thesis? The following figure, from an analysis

by Davis et al (2006) on micro-innovators in rural Ethiopia makes it clear. If one observes the networks within which the poor reside, which can be highly complex and disparate, and if we consider the power of attaining brokerage positions, we can see that analysing network brokerage can help unlock which ties are crucial for positive microfinance delivery:

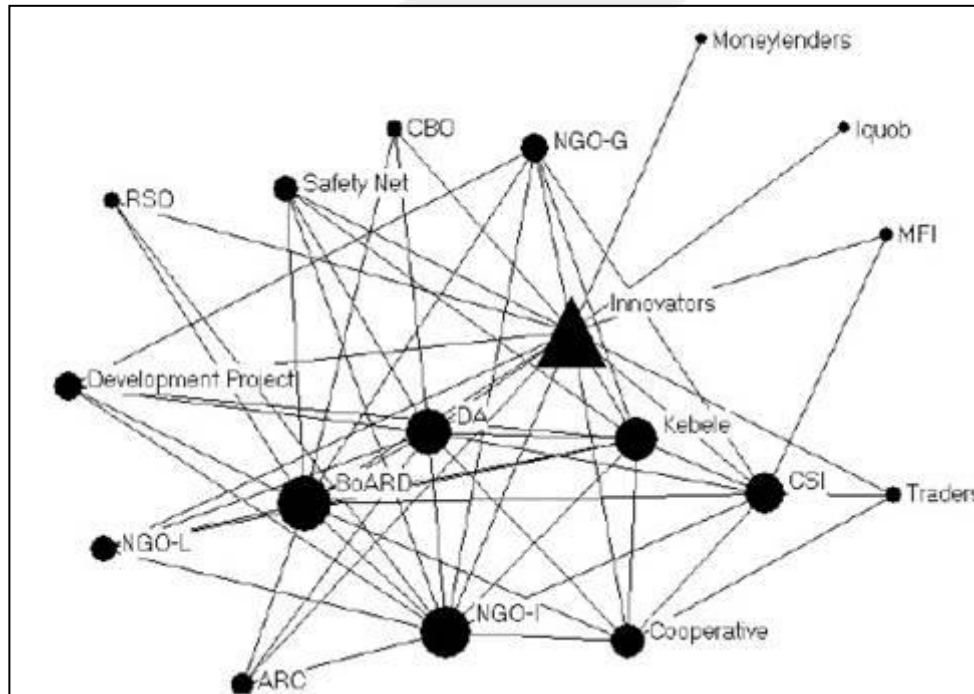


Figure 5: A network diagram of micro-innovators in Ethiopia, from Davis et al (2006)

The notion of brokerage becomes even more important when one acknowledges that the “key strength of indigenous organisations”, their social proximity, must be utilised but with active intermediaries regulating them (Dercon, 2005). Ignoring existing networks could lead to interference and ‘crowding out’ of certain sections of the community.

The issue of brokerage becomes important if one also considers the impact of ‘neighbourhood characteristics’ (c.f. Gomez & Santor, 2002) and even local religious leaders and elders on the success of microfinance programmes (Yunus, 1999). Moreover, as Ito (2003) shows, there have been instances where personal differences and prejudices between individuals seem to have a significant effect (see Box 2, ‘Fatema’s case’, where a woman is refused a loan for no apparent reason, other than differences with the bank manager).

Furthermore, when we consider the fact that the majority of microfinance networks have strengthened autonomously (Reynold, 2006) and the highly diverse nature of the poor’s networks, as illustrated in the table below (from Ruthven, 2002), one can see that the issue of brokerage emerges even greatly into the fore.

Rank	Criteria	Scheduled castes	Other backward castes	Nathpanthi	Muslims	Other	Total
Better off	'Service job', whole family works, contractor or broker, owns property given on rent, has special contacts, in Delhi for many years	2	9	6	2	10	29
Medium	Small contractor, tailor, usually has work, runs own small business, trader with a local market, owner-occupier of hutment, were better off before but got cheated	8	9	10	10	0	37
Poor	Widow/female-headed household, rickshaw puller, no work security, daily wages, drinker/gambler, bad money manager, rag picker, many small children, chronic health problems, poor dependents in the village, under-employed	12	10	8	2	2	34
Total		22	28	24	14	12	100

Table 1: The diverse nature of the poor's networks, both in terms of wealth rankings and ethnic classification (%). Data from the urban slum of Kalibasti, New Delhi (reproduced from Ruthven, 2002)

This diversity in part provides intermediaries with increased leverage, particularly with the influence of the 'traditional elite' that exist even in the poorest of regions and who exploit socio-cultural differences for their own gain (Conning & Kevane, 2002; Platteau & Abraham, 2002; Platteau & Gaspart, 2003). Moreover, field research has identified local patrons who emerge as key brokers upon the arrival of aid programmes (Bastiaensen et al, 2005) and who operate so smoothly that "project promoters did not even notice that the flow of funds destined to the poor ultimately reproduced the local structures of poverty" (c.f. Cowen & Shenton, 1996).

This issue is complicated by the fact that NGOs and other MFOs have to involve highly powerful brokers 'with capable agency' who are positioned along the 'rural-urban interface' but who could therefore easily indulge in 'aid capture' (Lyon, 2000; Krishna, 2001), as "local intermediation cannot be completely controlled by an external intervention" (D'Exelle, 2004). Field research has even found that 'downsized bureaucrats' often occupy such positions, and "even reappear as NGO administrators" (Platteau & Gaspart, 2003). This is

also, in part, due to the “simplistic understanding of power within such approaches [employed by NGOs] – which divides people into ‘lowers’ and ‘uppers’” (Chambers, 1997) and therefore complies with that notion that at the community level, “long-term poverty is socially and politically arranged” (Green & Hulme, 2005).

D’Exelle’s (2004) insightful work on these issues highlights a number of key points: that an important ‘articulation’ is required between external and local level actors, and that this requires utilising both institution design and local social capital (c.f. Klitgaard, 1994; Khwaja, 2000; Krishna, 2001); that even local intermediaries cannot be trusted, as there is no guarantee that they represent local interests (c.f. Galasso & Ravallion, 2001; Conning & Kevane, 2002; Platteau & Abraham, 2002); and that the impact of local power relations and community leaders who, “strategically present their community” to entice microfinance initiatives (c.f. Mosse, 2001), must be carefully monitored. All of these issues point to the fact that there exists a real trade-off between the need for local involvement and unknowingly providing them with the power to subvert the system.

The issue is further complicated by the fact that behavioural changes occur in the minds of brokers upon the arrival of external programmes (Conning & Kevane, 2002), and that while some intermediaries “only occasionally realise mediating tasks”, others act as “specialised development brokers” (Bierschenk et al., 2000; Laurent, 2001; Long, 2001). Many only realise the ‘information asymmetries’ that exist upon the arrival of foreign actors (D’Exelle, 2004), further complicating the task for researchers who hope to understand the formation of brokerage at the local level, which is in itself blurred by vague and overlapping spheres of influence, as identified in Figure 6 overleaf.

A possible remedy to this issue is the use of ‘targeting’ to carefully identify vulnerable groups before providing them with micro-lending (Van de Walle, 1998; Skoufias et al, 2001) and though this process has been studied more carefully in recent times (Alderman, 2001; Galasso & Ravallion, 2001; Raj, 2002), one “can only imperfectly monitor local intermediaries, and therefore the comparative advantages of the use of local brokers might be eroded by moral hazard” (D’Exelle, 2004). As Sen (1995) indicates, targeting is “as much a political and sociological problem as an economic problem”; securing the local elite can be vital to the success of microfinance initiatives, even if it has negative side-effects (c.f. Gelbach & Pritchett, 1997).

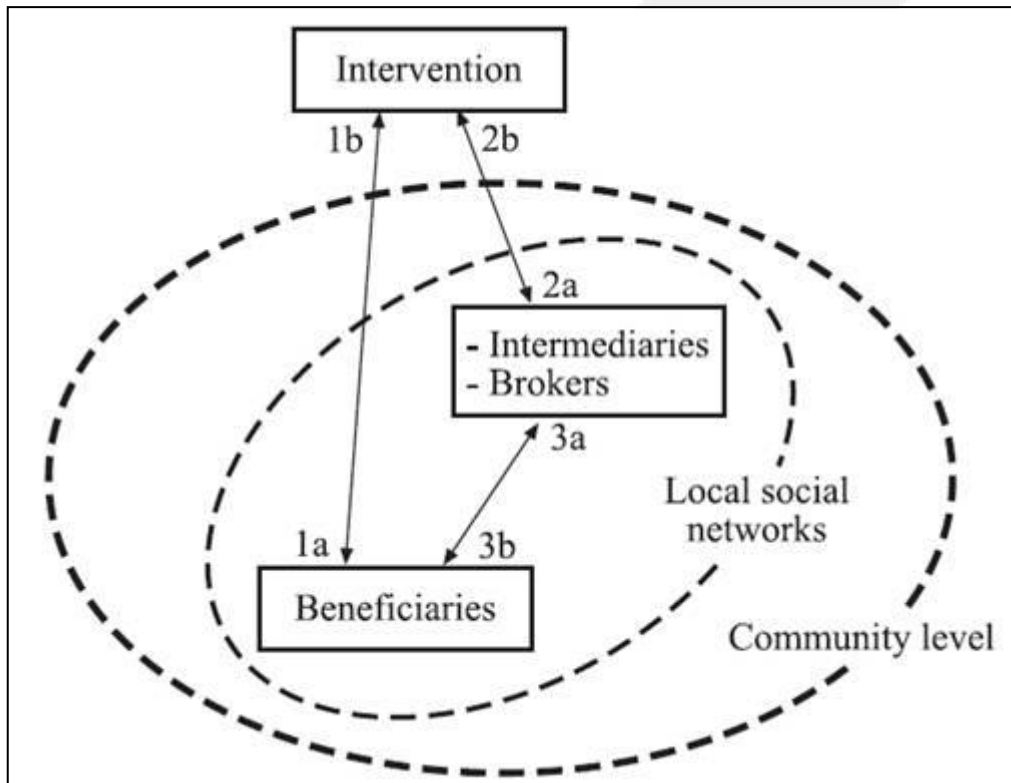


Figure 6: The true complexity of examining brokerage at the local level: overlapping and vague spheres of influence as identified by D'Exelle (2004)

Such issues have been previously considered and are generally accepted as the reasoning as to why microfinance schemes rarely reach the poorest of the poor (Rhyne, 1998; Navajas et al, 2000; Hickson, 2001; CGAP, 2002). Empirical analysis has shown that the poorest brokers tend to have the greatest legitimacy to their local community, but conversely, the greater they employ their brokerage position, the lower becomes their local credibility (D'Exelle, 2004).

The issue is further complicated by cultural differences between 'coordinator elites' who act at the communal level and "act as a counterweight to more cosmopolitan brokers, representing local interests" (Hillman, 2008), the variation of the socio-demographics of local power groups across regions (older women surprisingly made up such a group in an investigation of HIV transmission in rural Southern Africa, from Pronyk et al, 2005), and the fact that in some cases 'relatively honest brokers' simply don't exist due to a widespread and institutional acceptance of corruption (Thorp et al, 2005). In cases, the issue is so fraught that if the involvement of the elite leads to an improvement to the poor, "however small that improvement, the latter tend to be thankful to their leaders: the outcome represents a Pareto

improvement over the previous situation, and this is what matters after all.’’ (Platteau 2004: 227). Moreover, community figures have such entrenched spheres of legitimacy that even questionable corrupt behaviour does not bring them into disrepute in the eyes of their communal neighbours (Titeca & Vervisch, 2008). The situation is so blighted that in certain examples, the poor are willing to remain poor in the short term, and allow local leaders to act maliciously, in order to secure long-term security in what Wood (2003) calls a ‘desperate Faustian bargain’.

The key question therefore becomes the following: **how can external interventions optimise both the use level and the concentration level of local brokerage, without comprising the overall goals of a microfinance initiative?** It is in the hope of answering this question that I now present my own conceptualisations of brokerage within the microfinance setting.

2.4. Propositions: The Social Pyramid, Brokerage and ‘Tertius Nectens’

2.4.1. The Social Pyramid

Now that I have undertaken a thorough review of microfinance and its context in India, the existing application to social network theory and the concept of brokerage, I will now put forward my own paradigms and propositions, which I will then go on to test empirically. I will begin using a simplified model for society as my basic unit of analysis: that of a very hierarchical structure, that which is akin to a social pyramid. Such models have been used previously in studies of poverty, as shown below:

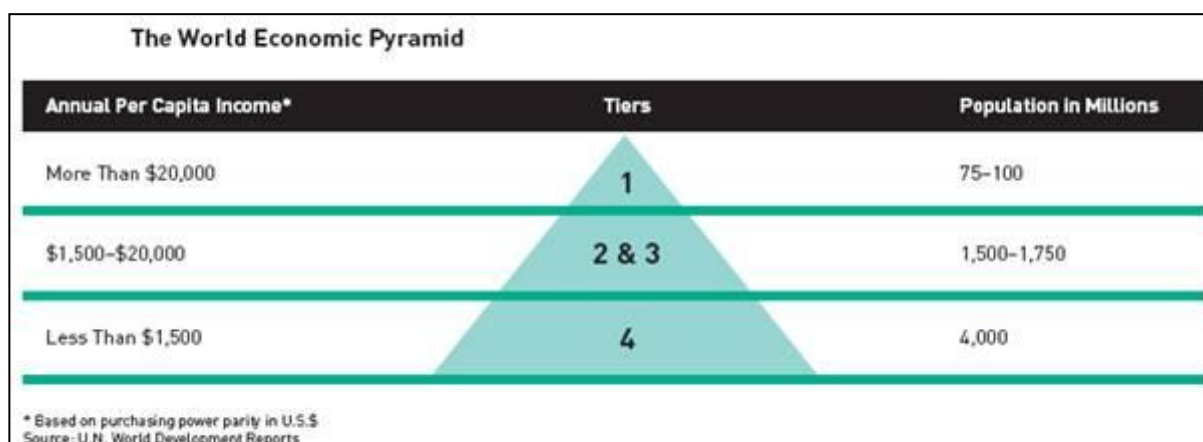


Figure 7: The ‘world economic pyramid’, as put forward by Prahalad & Hart (2002)



Figure 8: The poverty pyramid, which can be seen as an expansion of the Tier 4 section in Fig. 13. Reproduced from Remenyi (1994)

By using this extreme case, where we see wealth ordered in a strictly hierarchical fashion, we see that there are essentially two directions of analysis: in the **horizontal and vertical planes**, a distinction that Ito (2003) found empirically to be key aspects of the poor's networks, particularly in patron-client relationships.

It is therefore important to dissect the differences in relationships along the horizontal and vertical planes for different regions of the strict social pyramid presented, when moving from the 'top of the pyramid' (TOP), through the 'middle of the pyramid' (MOP), to the 'bottom of the pyramid' (BOP) (c.f. Prahalad, 2006). I therefore begin with the following propositions, which essentially acts as an initial corollaries upon which all further propositions are based:

Proposition/Corollary 1a: In the horizontal plane, as wealth is identically distributed, it will be individual characteristics (i.e. personality traits), not circumstantial ones, that are the key determinant of network structure.

Proposition/Corollary 1b: As wealth and other related, circumstantial variables are non-equally distributed in the vertical direction, it is the structural aspects of networks (**particularly leadership**) in the horizontal plane that translate into relational aspects of networks in the vertical plane.

The reasoning for the above is hopefully logical, especially for the extreme distribution of wealth in society that I have assumed. With this in mind, I also make the following distinction:

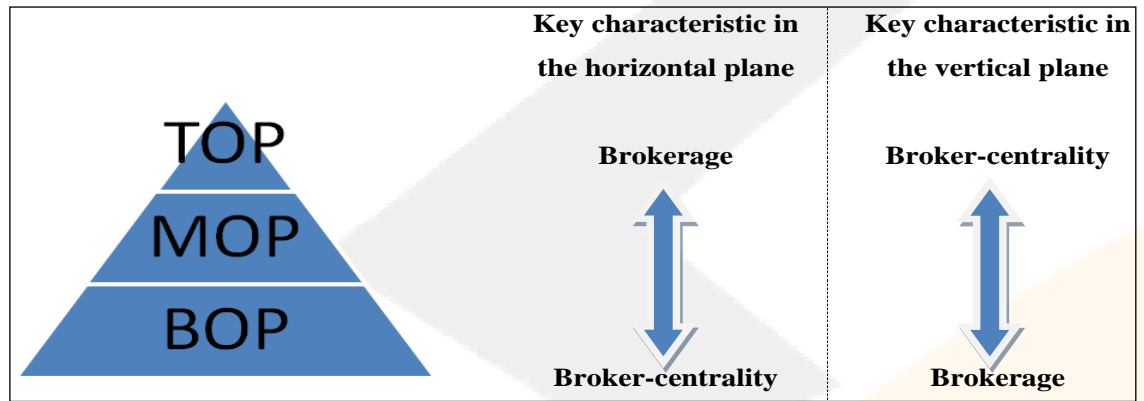


Figure 9: The important determinants of relationships in the horizontal and vertical plane across the social pyramid

Although the discussion, up till now, has been predominantly concerned with brokerage, the concept of centrality is also an important network characteristic, and simply refers to the extent to which an actor is central to a network. It has therefore been shown that broker-centrality is an important quality that influences leadership (c.f. Diani, 2005), and we can see why if we look at a hypothetical horizontal network at the BOP, such as an SHG:

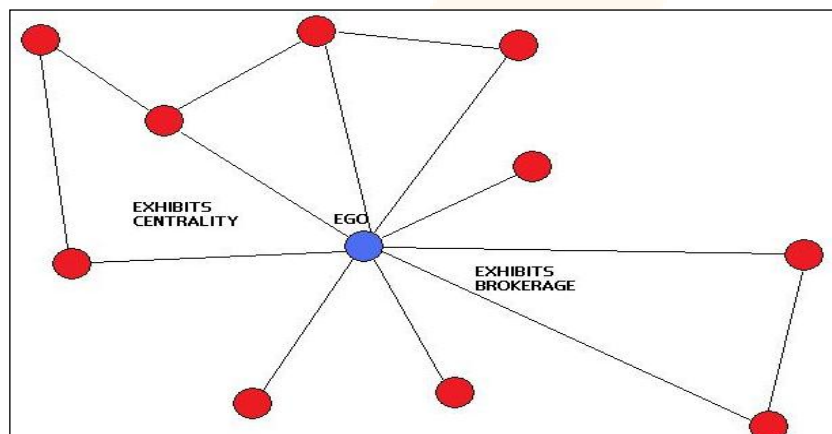


Figure 10: A hypothetical horizontal network at the BOP, such as an SHG

Because of the high number of actors involved, and the relatively high connectivity between actors (which would be expected of an SHG), simply being a broker is not the most ideal position to occupy within the group. As observed in the figure, and in empirical analyses, when ‘ego’ (the actor under scrutiny, using the terminology of Kilduff & Tsai, 2003) exhibits ‘broker-centrality’ (i.e. exhibits both centrality and brokerage), is when he or she exerts the greatest influence upon the group. Similarly, for the TOP:

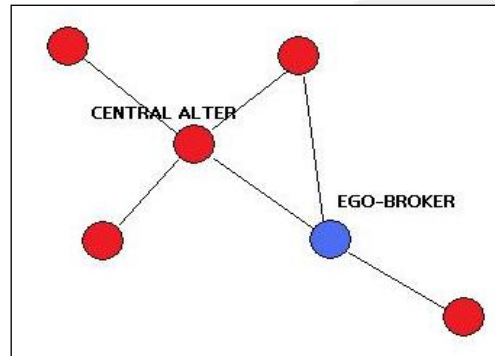


Figure 11: A hypothetical horizontal network at the TOP, for example, the heads of an NGO

At the TOP, we can see that being the central ‘alter’ (actors related to the ego, again as used by Kilduff & Tsai, 2003), is not necessarily ideal as in the BOP case. Due to the small number of actors involved, certain ties are essentially ‘redundant’ (c.f. Granovetter, 1973; Burt, 1992), and therefore, centrality is not as useful as with larger networks. Instead, we see that the ego-broker highlighted will be more influential in the network, due to his or her ability to draw in a disparate actor into the smaller horizontal social structure, thereby securing greater control of the power distribution within the network.

To see how the inverse is true in the vertical plane, let us first consider the vertical network near to the BOP:

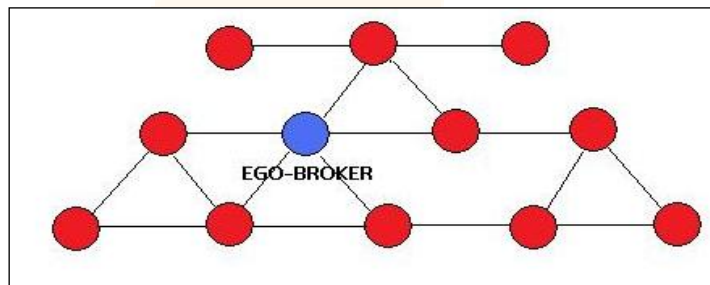


Figure 12: The vertical network near to the BOP

Again, we can assume a high level of connectivity in the horizontal networks at each level, and a high number of actors. We see therefore, that although there are some ties between actors at different hierarchical levels in the network, it would be the ego-broker, who is the key bridge between different horizontal planes, who would stand to benefit most from the network structure. Considering the same for the TOP:

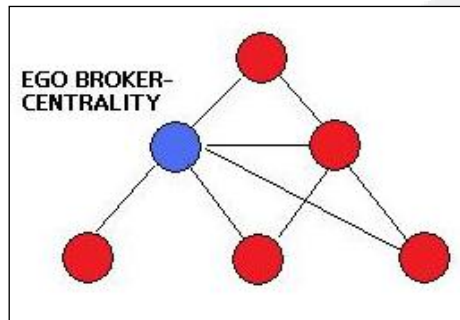


Figure 13: The vertical network near to the TOP

Again, at the TOP, there are relatively fewer actors, and there are again, redundant connections. However, in this case, the hierarchical levels are not so disparate in nature. As they are near to the TOP, they are of a similar standing (in terms of wealth and other related circumstantial factors), and the network is thus bound to be influenced far more by **power relations**. Therefore it is ego broker-centrality, or the ability to influence the tight network at the TOP by drawing in any disconnected actors as well as having leaders ‘revolve around you’, thereby consolidating power within the social configuration, that I claim would be of most benefit (c.f. Diani, 2005).

It is with these assumptions in mind that I make this second proposition, which essentially codifies the distinctions made across the social pyramid in Figure 9:

Proposition 2: Near to the bottom of the pyramid (BOP), network broker-centrality in the horizontal plane is the key determinant of brokerage in the vertical plane. Near to the top of the pyramid (TOP), it is brokerage in the horizontal plane that is the key determinant. Similarly, near to the BOP, it is brokerage in the vertical plane that is the most envious position to occupy, whereas it is broker-centrality near to the TOP.

2.4.2. ‘Tertius Nectens’

‘Tertius nectens’ is a phrase derived from Latin, in the vein of Simmel (1950) and Obstfeld (2005) and translates into the following: ‘the third who binds’. It is my conceptualisation of the behavioural aspects of brokerage, particularly in a micro-entrepreneurial context, and is an important theoretical extension to this thesis. It is a description of how brokers will be inclined, both consciously and perhaps subconsciously, to utilise certain social tools at their disposal to further secure their position. The principal proposition of the tertius nectens inclination is that, particularly at a micro-entrepreneurship level, brokers will do whatever possible to guard their positions for the long-term.

However, I felt it was beyond the scope of my field research to investigate this concept directly. Nonetheless, I will build upon it indirectly to build my general hypotheses (in the following section) for brokerage and its impact on microfinance in India – and for this reason, I detail it carefully in **Appendix 2** of this paper. It is hoped that were this paper extended to the PhD level, the concept of *tertius nectens* would play a more prominent role in my hypotheses.

2.4.3. Overall hypotheses

Armed with my conceptualisations of brokerage in terms of the poor, and the notion of ‘*tertius nectens*’, what claims can we now make upon the state of microfinance in India? As shown previously, one has to consider the horizontal and vertical components of brokerage as well as the way in which brokerage positions can be secured for the long term, when *tertius nectens* is successfully employed.

These themes connect well with the question put forward by Ruthven (2002): “professional moneylenders – are they heroes or villains?” Clearly, they are still highly active in the Indian subcontinent, even with the ‘microfinance revolution’ (Bansal, 2003), and they would often have occupied brokerage positions as shown previously (Patole & Ruthven, 2001). Their convenience, lack of social obligations and the fact that, as one slum-dweller puts it, “when I go to the monelender, it is between him and me – I give my relatives no reason to talk”, makes them key actors even today.

Furthermore, when considering the unique status of microfinance in India, which Devereux (2001) claims will lead to, “a growing range of intermediate forms [which] will occupy the institutional space” between large NGOs and publicly funded initiatives and the urban and rural poor, the framework used for microfinance delivery becomes all the more crucial. Should the ‘highly skilled project-policy brokers’ that Mosse (2001) feels are essential for effective microfinance delivery, be entirely new entrants to the field or drawn from the informal financial sector already available to the poor? These central questions, I feel, to have the following answers, when one considers brokerage, the social pyramid, and *tertius nectens*:

Proposition 3a: The use of intermediaries who act as key brokers in the delivery of microfinance is crucial and unavoidable, even though it is fraught with potential downsides.

Their local socio-cultural knowledge is invaluable to the success of any microfinance initiative.

Proposition 3b: However, when such brokers are new entrants to the network, and attempt to wrest brokerage away from existing brokers, such as informal moneylenders, they will find this a difficult process, depending upon the level of tertius nectens secured by the extant broker.

Proposition 3c: This process could lead to the breakdown of the network and the formation of new social structures that can prove unstable and ineffective. Moreover, if the new entrants were to leave, the network structure would revert to the previous configuration. Therefore, the ideal approach is to adapt the existing network as carefully as possible to new microfinance initiatives, and therefore work with informal moneylenders in delivering a diverse and variable microfinance package.

I went on to partly test these claims through field research, whose methodologies I will now detail.

3. Research Methodology

To investigate the propositions made, I undertook field research in India with a number of tutors at the Judge Business School, including my supervisor Jaideep Prabhu, Navi Radjou and Chander Velu. I embarked on this trip on the 16th of March, and we visited a number of locations in India, including members of an SHG in an urban slum in Bangalore. My aim during the trip was to **evaluate the network effects of brokerage at the SHG level** (i.e. near to the bottom of the pyramid). This was due to the constraints on resources and time during the MPhil, as I hope to investigate my full set of hypotheses during the course of a PhD. I hoped to use a **combined qualitative-quantitative approach** during my trip, as I felt this would give a compelling account of the issues outlined.

Unfortunately, my trip was cut short when I was involved in a serious car accident in which I broke my leg, on the 30th of March. I was on my way to conduct an 8 hour field survey of some rural microfinance initiatives near Thanjavur, in the southern state of Tamil Nadu. Unsurprisingly, this abruptly curtailed my research objectives during the trip.

However, I managed to conduct some of the quantitative aspects of my work which I was unable to do due to the accident, through the help of contacts at IFMR, for which I am very grateful. Therefore, the research presented splits into two areas: my own qualitative observations during my field trip, and the quantitative work I managed to procure later on. This section is thus a brief recap of the methods used.

3.1. Qualitative methods

During my field trip, I and my tutors were hosted at a number of organisations in Southern India. Due to non-disclosure agreements (NDA), I cannot reveal the exact nature of all the organisations in question. However, the overarching theme in all these meetings was the notion of the ‘bottom of the pyramid’ (c.f. Prahalad, 2006), and the impact of development programmes, technology and micro-entrepreneurship in India. A number of organisations directly involved in microfinance were also visited, and I managed to pose my questions to a number of experts within the field. Although these did not constitute formal interviews, they did follow the traits of semi-structured interviews as outlined by Creswell (2002).

During the trip, I also had the chance to partake in field visits, one of which will feature prominently in this thesis – a visit to an urban slum in Bangalore. In that particular visit, I had the chance to meet numerous SHG members as a guest at their homes. The slum-residents were mostly Tamil, my own ethnicity, and therefore I was able to pose a number of questions to them in their native tongue. These followed more of an interview format than our other visits and my field notes from the time could be considered ethnography, as they constituted uncontrolled participant observation (c.f. Richardson, 2000).

I recorded my field notes upon paper, rather than recording the conversations held. Although these would have allowed careful transcripts and analysis to be generated (c.f. Flick, 2006), I felt that the use of a recorder would have perturbed our hosts. Moreover, the note-taking was not as formal as some scholars recommend (Becker & Geer, 1958), partly due to my inexperience as a researcher in the field. Due to the accident, these are also somewhat incomplete; I was en route for an 8 hour rural field trip when the incident occurred, which could have proven invaluable to the thesis. My notes therefore are my own positivist account of my observations, and I have attached any of my findings I feel relevant to this thesis in **Appendix 3**.

3.2. Quantitative methods

My aim during my field research was to combine a dual lens, and utilise both qualitative and quantitative observations networks brokerage at the SHG level. Unfortunately, due to the aforementioned accident, I was unable to oversee the quantitative survey during my time in India.

Luckily, I was able to administer the test (albeit not in person) through contacts made at IFMR as mentioned previously. My survey was administered to a number of members in a rural SHG of 12 members in Aalakudi, near the town of Thanjavur, in Tamil Nadu.

The purpose of the test was to gauge individuals' perception of the social network within the SHG and to compile these to form an aggregated map of the network. Details of this method, and the 'Cognitive Social Structures' (CSS) formed are outlined in Kilduff & Tsai (2003) and in detail by Hanneman & Riddle (2005)²; the exact method used on UCINET, the social mapping software I utilised and a copy of the survey itself, as well as a detailed breakdown of the results, are all attached in **Appendix 4**.

I designed the survey such that it was bilingual, and it also contained a number of questions that attempted to gain a greater understanding of how brokerage and intermediaries affect those at the SHG level. It was given to 7 respondents of an SHG that had 12 members, and the results of this study, as well as my quantitative findings, are presented in the following section.

4. Results and Findings

4.1. Qualitative findings

During my field research, I had the chance to meet with numerous academics and professionals involved with microfinance in India, and learnt many things, particularly context-specific knowledge that I would not have otherwise. It was only by visiting those on the ground that I understood the practical challenges of microfinance delivery and how the issue of brokerage impacts upon this. A detailed account of my field notes is attached in

² An online textbook published at <http://faculty.ucr.edu/~hanneman/nettext/>

Appendix 3, but in the interests of academic focus, the following are a brief summary of my findings:

4.1.1. Meeting at the Centre for Microfinance, IFMR, Chennai

The Centre for Microfinance (CMF) is an institution founded by the Institute for Financial Management Research (IFMR) in Chennai, whose mission is to “improve the accessibility and quality of financial services for the poor through rigorous research, knowledge dissemination and evidence-based policy for MFIs”³. With my colleagues, I had the opportunity to meet with Justin Oliver, the Executive Director of the Centre, Theresa Chen, Programme head for Credit and Savings, and Doug Johnson Programme Head of the Sector Wide and Policy Analysis unit. The following are brief points that summarised some of the interesting themes that came out of our discussion:

- ***The need to use ‘super-local ambassadors’ (SLAs):*** The centre highly praised the use of local actors who are highly embedded within their respective networks in certain microfinance initiatives. They felt that such SLAs were vital in building trust in local communities, therefore reinforcing the fundamental requirement of intermediaries who will naturally occupy highly powerful brokerage positions.
- ***Trade-off between societal impact and scalability:*** The responses, particularly from Justin Oliver, seemed to confirm that there was a genuine trade-off between the level of poverty alleviation of MFOs and their scalability. A particular example cited was that of SKS and what was termed its ‘Starbucks model’ of microfinance.
- ***The power of existing institutions/networks:*** The explanation given for Andhra Pradesh’s startling success in microfinance initiatives was that there were existing networks and institutions pervaded by the government even before the dawn of modern microfinance. The responses seem to highlight the value of exploiting existing networks than to establish new ones from entirety.
- ***The nature of NGO intermediaries:*** Comments made likened intermediaries between NGOs and SHGs as essentially “electing a board of directors” of the microfinance initiative. This simply serves to highlight the power of intermediaries and their brokerage advantages.
- ***Cultural and legislative issues:*** State-level legislative barriers were highlighted. Moreover, cultural distinctions were made between North and South India, and the

³ Source: <http://ifmr.ac.in/cmfi/about.html>

claim that there was a greater connotation for social indebtedness in the latter, which may explain the relatively higher level of success of such programmes in the South. This notion clearly lends itself to studies of social networks.

4.1.2. Visit to Microsoft Research Laboratories, Bangalore

Microsoft's Indian research laboratory in Bangalore, one of six worldwide, "is engaged in cutting-edge basic and applied research in multiple fields in computing, information technology, and related areas"⁴. Sections of the lab focus more directly upon the BOP, and we met with various members of these departments during a two day visit to the centre. The following are some of the interesting points discussed:

- ***Link between level of poverty and brokerage:*** *By far the most interesting discussion was with Nimmy Rangaswamy, a researcher who is studying the nature of social networks in urban slums in Mumbai. Her work looks at how brokers are important in the proliferation of technologies within these slums. Her findings reflected how corporations were willing to deal with intermediary agents and thereby treat the slum's network as a 'black box' with which they had no involvement. The network, she finds, therefore has a legal and formal channel, and then an informational gap into the informal and illegal network of the slum, as shown in Figure 14 overleaf. Interestingly, her findings also suggest that brokers are more likely to relinquish some of their network power when their communities themselves are more impoverished. She postulates this may be because in extreme cases of poverty, slum residents develop a 'sense of extended family' with fellow dwellers, than in less impoverished cases.*
- ***The 'Matthew Effect':*** *Nimmy went on to agree, that in highly impoverished regions, key brokers seemed to experience what Merton (1968) termed the 'Matthew Effect', and "that the rich get richer as the poor get poorer".*
- ***The power of self-selection/pre-selection:*** *This theme, as to how external actors are restricted in which intermediaries they can deal with, came up often. Certain actors self-select themselves as brokers, due to their own motivations and aspirations; but at the same time, certain actors are pre-selected, due to the particular requirements of external actors, especially educational characteristics.*

⁴ Source: <http://research.microsoft.com/en-us/labs/india/about.aspx>

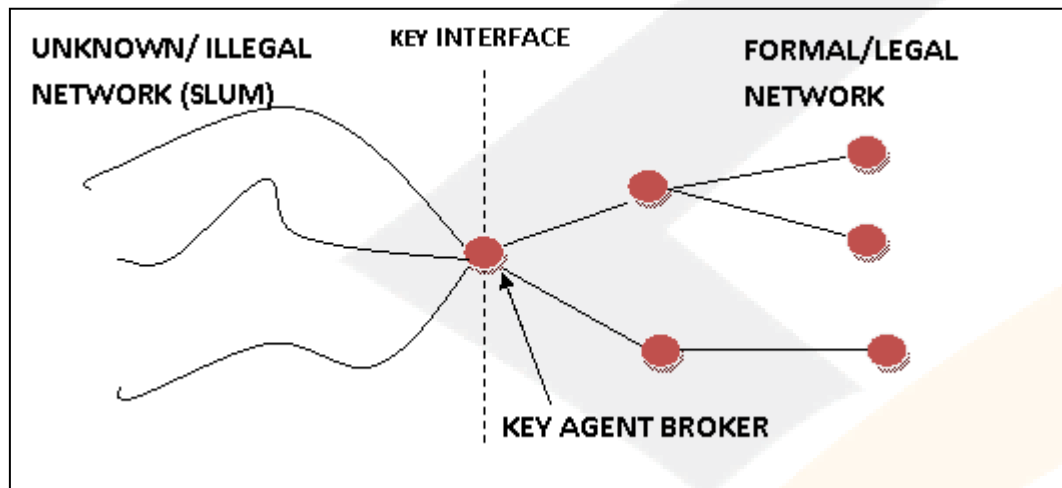


Figure 14: The power of brokers and network interface in urban slum case

- **The importance of leadership and rhetoric:** The need for powerful leaders who set a particular ethos and agenda for microfinance initiatives was identified, as this would reverberate through the network chain. Rajeev Chavla and the 'Bhoomi' programme in Karnataka were cited as an example.
- **Institutional failures:** The failure of various programmes was due to "lots of birth and death processes" and their short term outlook. Again, this is a reflection of governmental failures.
- **"Technology can only empower existing movements":** This interesting point highlighted the need for ground-swell for the success of microfinance programme, and linked the notion of social movements into the discussion.
- **MFIs as an arbitrage between the informal and formal finance available:** A point covered in the literature review, but worth noting here.

4.1.3. Visit to the Ragigudda urban slum, Bangalore

Undoubtedly the most important of my qualitative findings were generated during my day-visit to the Ragigudda urban slum in J Nagar, Bangalore. Here, I met and had extended conversations with four SHG members, as guests in their homes. Our group was accompanied by a PhD student at UC Irvine, who was studying the slum extensively.

The SHG was run and organised by an NGO, whose representatives on the ground were a group of nuns as part of a Christian mission. Two 'sisters' interacted heavily with the SHG, and were key in their organisation. Most of the SHG members work as servants or maids with

richer patrons in nearby neighbourhoods, and generally work mostly in the mornings. The visit was very insightful in observing qualitatively the network dynamics involved. However, before I do so, here is a brief description of the four women who I talked to:

Pushpa: 30 years old, mother of two daughters (aged 12 and 10 years) and one son (8 years). Claims that SHG vital for women, as their “husbands are useless”. Like many of the other slum-dwellers, she moved to Bangalore from Tamil Nadu upon marriage at the age of 16. Her husband is an unskilled labourer, who is often away from home finding work. Her home is small, but relatively well equipped with basic electronic appliances.

Indra: Richest of the slum-dwellers. Her home is large relative to all others, and she even owns a television. Has one son, who is 9, and her husband plays in a band that performs at weddings etc.

Pooja: Younger sister of Pushpa and thus has similar personality traits. Two young daughters, her husband is also an unskilled labourer. Her home is slightly less well-off than Pushpa’s.

Chandra: Clearly the poorest SHG member. Her home is tiny in comparison to her neighbours, and she has no possessions bar a stove, pots and pans, and small trinkets. Has two small daughters; her husband (it seemed) was a renowned alcoholic within the slum, who did not contribute to the family’s income.

My own observations can be summarised as the following:

Pushpa: She was the most charismatic of the women we visited and was highly enthusiastic of the SHG programme. She firmly believed that microcredit was helping female empowerment, and was highly grateful to the NGO for their help. She saw the SHG initiative as the way out of poverty for her children, and cited it as the main reason they could afford schooling.

Indra: Not as enthusiastic of the SHG initiative, but grateful for the assistance of the ‘sisters’ with the community as a whole. Her lack of interest may stem from the fact that she claimed that there were cousins and other family members who were employed in more skilled areas from whom she could borrow money.

Pooja: Shared a similar enthusiasm for the SHG programme as Pushpa, her sister. Believed strongly in the aims of the NGO, and also cited that the ‘sisters’ helped them with disputes they had with patrons over payments, and with any problems they had with their husbands.

Chandra: Very quiet and introvert in comparison, particularly with the Pushpa/Pooja sisters. Seemed ambivalent towards the SHG, and claimed that she “didn’t have time for meetings”.

However, seemed to be an avid supporter of Pushpa, and therefore shared a mild enthusiasm for the initiative, even if it was forced.

The NGO, unlike some other microfinance initiatives, rotated the group leaders for the SHG on a weekly basis; moreover, two SHG members had to make a cross-city trip to the NGO's offices, and this responsibility was also rotated weekly. The aim behind this seemed to ensure involvement from all SHG members, and to ensure the group operated as cooperatively as possible.

All four of the members cited 'Madame Jenny', the head of the group of nuns who worked at the slum as an inspirational figure, and heaped plenty of praise upon her. All also claimed that they had informal sources credit available to them if needed. However, as highlighted in the discussion section of this thesis, my observations were contrasted interestingly by the PhD student who had extensively studied the slum.



Above (clockwise from top left): Some images from our visit to the Ragigudda slum, a panorama of which is shown, myself and some of the slum children, and our group in Chandra's home

5. Quantitative findings

As mentioned in the methodology section previously, a survey was given to 7 respondents in an SHG of 12 members in Aalakudi, near the town of Thanjavur in Tamil Nadu. Before detailing the results, I would like once again to thank the CMF at IFMR, and Vaishnavi Prathap in particular, for administering the study in my stead.

Using the CSS method aforementioned and detailed carefully in **Appendix 4**, I was able to combine the individual members' perceptions of the social network of the SHG to form an aggregate of the social structure, as shown in the network diagram below:

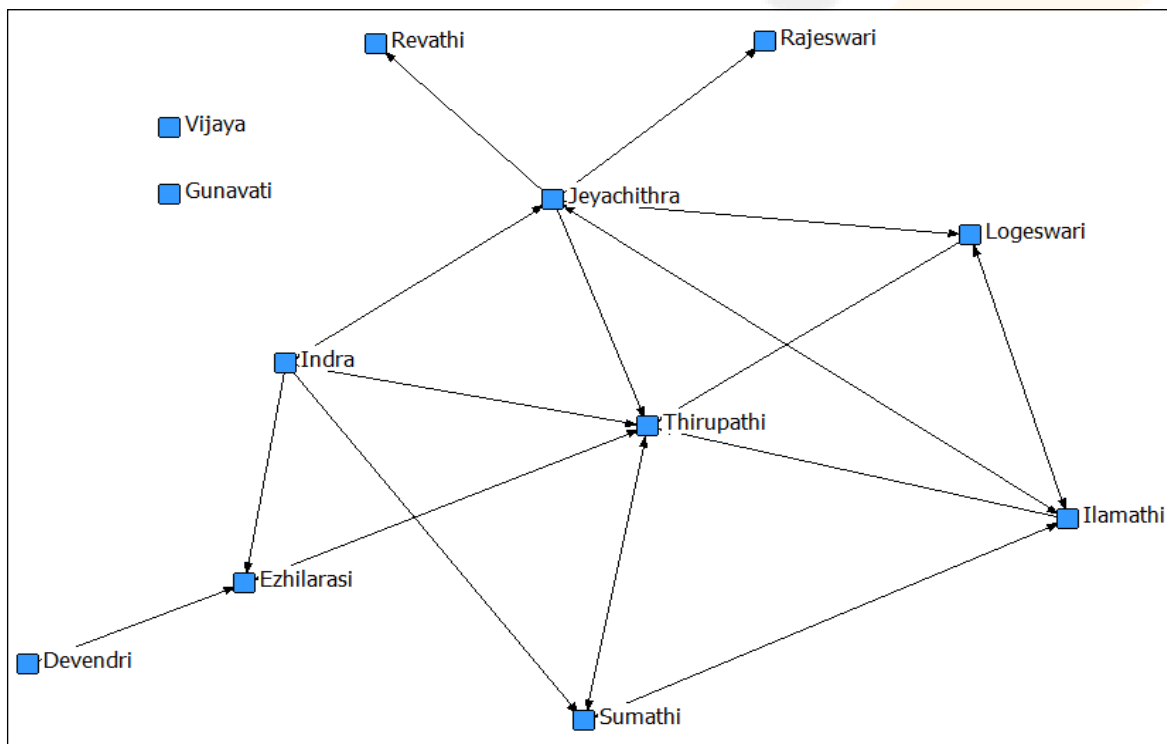


Figure 15: The Cognitive Social Structure generated by the Union LAS method in UNICET⁵

From the diagram shown, we can see even with the naked eye that Thirupathi seems to be the most central actor, and also displays a certain degree of broker-centrality. These assertions were also measured quantitatively by the UCINET's sister program NETDRAW, as shown in Table 2 (directional characteristics are ignored for simplicity):

⁵ Borgatti, S.P., M.G. Everett and L.C. Freeman (2002) "Ucinet 6 for Windows: Software for Social Network Analysis", Harvard: Analytic Technologies

SHG MEMBER	CENTRALITY MEASURES					BROKERAGE MEASURES				
	Degree	Betweenness	Closeness	Harmonic Closeness	Eigenvector Centrality	Density	EffSize	Constraint	rConstraint	Hierarchy
Thirupathi	6	10	48	7.5	0.501	0.467	4.375	0.436	-0.436	0.033
Ezhilarasi	3	16	49	7.3	0.439	0.333	2.625	0.463	-0.463	0.202
Ilamathi	3	5	50	6.5	0.361	0.667	2.857	0.492	-0.492	0.005
Sumathi	3	8	53	5.7	0.225	0.667	2.3	0.512	-0.512	0.112
Jeyachithra	2	0	52	5.8	0.325	0.267	5.125	0.313	-0.313	0.11
Logeswari	2	1.5	51	6.3	0.386	1	1.625	0.657	-0.657	0.086
Indra	1	0.3	54	5.5	0.306	0.5	2.9	0.491	-0.491	0.091
Rajeswari	1	0	57	4.4	0.108	0	1	1	-1	1
Revathi	1	0	57	4.4	0.108	0	1	1	-1	1
Vijaya	0	0	144	0	0	0	0	0	0	1.00E+38
Gunavati	0	0	144	0	0	0	0	0	0	1.00E+38
Devendri	0	0	61	3.8	0.055	0	1	1	-1	1

Table 2: Centrality and brokerage measures for each SHG member as calculated by NETDRAW

The above table displays both centrality measures and brokerage measures as shown, details of which can be found in Burt (1992) and Scott (2000). The names of the SHG members are arranged according to degree centrality, the simplest measure of centrality. Clearly, according to most measures, Thirupathi is the most central actor; closeness is essentially an inverse measure of centrality (c.f. Borgatti, 2005), which is why it seems out of place with the other data.

As for the brokerage measures, there is little variation across the board. Thirupathi seems to display similar levels of brokerage to others, where there is little to choose between the top five most central actors. With this in mind, it seems that Thirupathi displays broker-centrality, which was postulated as the key variable for vertical brokerage. To further investigate this, a number of questions were also posed to the respondents (a copy of the survey is attached in **Appendix 4**), which generated the responses shown overleaf:

Name	Logeswari	Thirupathi	Indra	Jeyachithra	Ezhilarasi	Sumathi	Ilamathi
Age	26	35	40	32	45	33	32
No. of dependants	4	2	3	2	4	3	4
How long have you lived in this area?	26	18	19	32	40	17	32
Opinion of SHG	Helpful	Savings, friends	We invested money in cattle- good return; equal shares	Helpful for savings		Happy with arrangement	Members trust me
Informal sources of credit?	Yes, for farming	Yes	Yes	Yes	No	Yes	Yes
Leaders?	Ilamathi, Thirupathi	Ilamathi	Ilamathi	Ilamathi, Gunavati	Ilamathi	Ilamathi	Ilamathi
SHG members live near you?	Yes, on the same street	Yes, next street	Yes	Yes, on same street	Yes	Yes, on the same street and next	Yes, on same street
Family in nearby villages?	No	Yes	Yes	No	No	Yes	Yes
Family in urban areas or banks/MFIs?	No	No	No	No	No	No	No
Description of home							
Personality	Quiet	Sociable, shows leadership qualities	Shy	Introvert, but friendly			Extrovert; influences the group; commands respect
Any other comments							

Table 4: Responses from general questions posed to SHG members

The field researcher who coordinated the survey, Vaishnavi Prathap, also made the following observations:

- *The women of the SHG all live on two streets and the survey was administered in a meeting at a half-constructed house in the neighbourhood.*
- *That their homes are modest, with some homes having thatched roofs, while others had concrete ceilings, but that there was little to differentiated one home from another.*
- *The SHG was formed by unknown intermediaries, that it has been in existence for 14 months, and that it began with a Rs. 60,000 loan which was invested in the purchase of cattle.*
- *That Ilamathi was elected leader at the time of SHG formation, and that although Thirupathi seemed to be the one to give instructions and to persuade fellow members to cooperate with the field researchers, Ilamathi, as elected leader, was the one who represented the group at official meetings, handled negotiations and the one liable for any problems if investigated by the parent organisation.*

- *That it was Ezhilarisi and Sumathi's daughters who helped to fill in their surveys, as they were not present at the time. Thirupathi claimed that the two had limited interaction with the group due to their day-jobs recurring at certain points of the week.*
- *That the SHG was making regular repayments with a fair degree of ease and that the group seemed fairly stable. Also, that many of the SHG members had been in other SHGs before, and that they were all registered with an MFI.*

6. Some observations

6.1. From qualitative findings

Although my observations at the Ragigudda slum were interesting, I later found out my ethnographic account was riddled with issues, as highlighted by the comments of the PhD student on my findings:

Comments from Nithya Sambasivan, Phd student at UC Irvine:

Nithya confirmed that I was right in suspecting Pushpa as a key broker within the SHG. Pushpa has high horizontal broker-centrality as well as vertical brokerage, so much so that Nithya termed her as the “gatekeeper to the NGO” within the slum. Moreover, she and her sister Pooja have formed a powerful coalition which has great influence within the SHG and the community as a whole. It transpired that Pushpa had even prepared the slum for our visit, a behavioural aspect that D'Exelle (2004) observed with patrons of impoverished communities.

Moreover, it became evident that Indra's apathy towards the SHG programme was in part because she and Pushpa were bitter rivals. Indra was well-off compared to the average slum resident and this was resented by a majority of the community; Pushpa was generally well-liked, and therefore their antagonism was an interesting manifestation of the politics within the slum. It also transpired that Indra no longer works, and she clearly lied to us about this fact. The source of her relative wealth was a mystery within the slum, and this caused further bitterness towards her.

However, the ‘Hawthorne effects’ (c.f. Langsberger, 1958) of my ethnography became far clearer when contrasting my views with the PhD student's. It became obvious that the SHG members' frequent mentions of ‘Madame Jenny’ was simply a ploy to present the NGO in as

good a light as possible; in effect, the slum residents were on their 'best behaviour', as it were, on our visit.

Our visit also neglected aspects that only a long research stint could have uncovered; an example of this was religious issues that were hidden under the surface. A sizable Muslim minority were not allowed, by husbands and elders, to take part in the SHG. This 'social exclusion' was an interesting aspect that was not evident on the day; unsurprisingly, Pushpa had attempted to befriend those communities as well.

Clearly such issues were at play in our other visits as well, and that we were guided in much of what we saw. However, in terms of my research objectives, **the Ragigudda case supported my hypotheses**. At the SHG level, or near to the BOP, clearly it was individualistic characteristics that were essential in establishing a strong position within the local network. Pushpa and her sister had the personalities, particularly the enthusiasm, that endeared them to their neighbours and fellow SHG members. Even though they were less off financially than Indra, and were more recent arrivals to the slum, they had secured greater control of the network, which lends further weight to my first set of hypotheses.

My second proposition, that broker-centrality at the horizontal level at the BOP would translate into vertical brokerage seemed also to be justified. As Nithya mentioned, Puspha was the NGO's 'gatekeeper' to the slum. Her strong network position (of broker-centrality) seemed to be the key reason for this; although her personality and other traits were also important in establishing vertical brokerage, as postulated by Proposition/Corollary 1b, these were required in establishing her strong horizontal position in the first place, and therefore can be considered a secondary factor in the light of the structure of her horizontal network.

Finally, the NGO was utilising the existing network within the slum by liaising with Pushpa, and this may be an aspect to why the SHG seemed relatively stable and successful (having run for a number of years). These lend some support to my last set of hypotheses, as utilising the existing network structure seems to have lead to a fairly stable relationship between the local network and outsiders. Furthermore, although my conceptualisation of tertius nectens could not be directly tested, it was evident that Pushpa had secured a key brokerage position on the interface between SHG and NGO. She certainly had a strong hold on the network, and it was likely that this would be a difficult position to usurp, as predicted by tertius nectens.

Clearly, qualitative field work on social networks has its limitations. Structuralists, would argue that it cannot truly analyse the network at hand, although many scholars are now criticising such an approach for its simplistic perspective and banality (Emirbayer & Goodwin, 1994; Salanick, 1995). The Ragigudda urban slum is an interesting case that perhaps lends a more descriptive veneer when compared with traditional approaches to social network analyses (c.f. Kilduff & Tsai, Ch. 4).

However, to ignore the quantitative aspects of network analyses would also be myopic, which is why the CSS surveying of the Thanjavur SHG was undertaken. The conclusions that may be drawn from the results of that particular survey will now also be detailed.

6.2. From quantitative findings

The most puzzling finding generated by the quantitative analyses was what field researcher Vaishnavi Prathap termed, ‘the Thirupathi-Ilamathi paradox’. How could Thirupathi, the actor who exhibited the greatest level of broker-centrality, not be the leader of the group? Almost all the respondents listed Ilamathi as the leader, and this seemed to go against much of the logic of social network theory (c.f. Burt, 1992; Borgatti, 2005; Diani, 2005).

However, as recounted in the results section, Ilamathi was elected leader at the group’s formation, and the fact that she was older and has lived in the area for her entire life, unlike Thirupathi, who moved there 18 years ago, may help to explain this. Moreover, although Thirupathi’s character was listed as ‘sociable’ and ‘friendly’ by the field researcher, Ilamathi, it was claimed, ‘commanded respect’ and was in some senses, quite intimidating. This perhaps throws light on interesting personality correlates that may have a greater impact on leadership in the SHG than other cases (e.g. Snyder et al’s 1983 work on self monitoring).

Furthermore, the difficulties and the backdrop in which the experiment was conducted may also help to explain the observed discrepancy from social network theory. Here is a direct quote from field researcher Vaishnavi Prathap of the difficulties faced:

- *“I didn't really have doubts about the survey, but executing it on-field proved quite challenging! I think maybe because of the nature of what we were asking (the relationships within the group) all of them were very reluctant to co-operate. The fact*

that I couldn't meet them privately in their homes and we had to do it like a meeting, probably added to their discomfort.

- *"[The SHG members] seemed reluctant to fill in the matrix, insisting that they were all friends. Responded better when asked 'who is her special friend?', or 'who does she talk to most/go to market with' etc.*
- *"[The SHG members] were also very watchful about including names of members who were not present- saying it would lead to fights. I also got the feeling that they were more willing to pick just one name, after which I had to goad them for more names under the same column.*
- *"They took some time to warm up to the idea of the matrix. At first shot they started putting crosses against every name, which is when we had to change the style of questioning (mentioned above)*
- *"They were deeply suspicious of my intentions, and why we're asking these questions. They say they haven't had any arguments so far, and if those present commented on those absent, it could lead to trouble."*

The fact that the survey was done with other members present, particularly the 'intimidating' and official leader, Ilamathi is clearly the biggest limitation of the survey. Whether the responses would have been different if the survey was administered in private remains to be seen, but this could not be done simply because such an opportunity is difficult to organise out in the field.

Clearly the numerous difficulties for executing the survey shed some doubt on its findings, although such observations have been made of the CSS method in other settings, such as MBA students in the Western world (Kilduff 1990). It is hoped that the CSS formed, by taking the consensus of the responses, would eliminate any biases, and present a valid view of the SHG's network. However, the quality of the data is reflected by the two disconnected actors formed by the CSS (Vijaya and Gunavathi), which seems to be an unlikely reflection of the true network, considering that SHG members meet on a weekly basis.

The test itself could perhaps also been simplified, in light of the difficulties faced in administering it; it may have been more effective to build a CSS with unidirectional ties, thereby halving the size of the multi-relational matrix needed for the subsequent analyses. However, I simply followed existing techniques outlined by network scholars (such as

Hanneman & Riddle, 2004), to ensure that my quantitative methodology was sound. In hindsight, it may have been better to adapt the study to the microfinance setting more carefully.

Moreover, there clearly needs to be a greater investigation of the issue, and the survey would have to be administered to numerous SHGs before drawing definite conclusions from the data. The fact that just only around half the SHG members were present when the survey was administered further complicates the problem, as this can make it difficult to draw inferences upon members not present; however, such a partial form of surveying is often considered a valid line of enquiry by numerous network scholars (such as Kilduff & Tsai, 2003).

However, the above limitations do not entirely negate the study; a number of interesting indicative points can be drawn from the results, especially when combined with my own observations in the field. The limitations mentioned above were primarily due to the strain on resources that a prolonged investigation would have taken, particularly for an MPhil thesis; but even with the preliminary findings recounted, I am able to draw a number of interesting and insightful conclusions overall, as detailed overleaf.

7. Conclusions

What conclusions therefore, can be drawn of my propositions on brokerage, and on the objectives of this thesis as a whole? My aim was to investigate brokerage in microfinance institutions in India, and to identify who are these ‘microfinanciers’, the key intermediaries within this context. In this thesis, I built a number of theoretical constructs, to try to postulate how brokerage will vary across the ‘social pyramid’, and what impact such variations could have on microfinance delivery as a whole (Section 3.4).

Empirically, I went on to combine a dual lens and to utilise a qualitative and quantitative approach in the field (Section 3), to attempt to dissect the problem at the SHG level. This particular level of the social pyramid, i.e. near to the BOP, was chosen as an initial point from which I could test my hypotheses.

The results (Section 4), seem to both support and to question my propositions. My own qualitative findings seem to sustain my theory that broker-centrality in the horizontal domain would be the key factor for attaining vertical brokerage at the BOP, as illustrated by Pushpa. However, the quantitative findings are somewhat surprising; although Thirupathi is the actor with the greatest broker-centrality, it is Ilamathi, the official leader elected at the formation of the SHG, who is still considered the head of the group.

Clearly this throws up a number of new questions; firstly, it seems that the life cycles of SHGs and how this influences power networks would have to be more carefully considered; secondly, the fact that Ilamathi has lived in the community all her life compared to Thirupahti may also not be a coincidence, and perhaps points to embeddedness within the local network as another key issue; however, the most important point of all is that the fact that Ilamathi's highly extrovert and commanding presence in comparison to Thirupathi seems to indicate that other behavioural factors, and not just the ones that establish favourable network configurations (such as self-monitoring), are also key at the SHG level.

As Lyon (2000) suggests, it seems that the behavioural dynamics of groups at the BOP may perhaps be as critical a factor as network configuration, as to who is considered as the leader of the group. In particular, from the findings, it seems that the issue of motivation is crucial; perhaps incorporating theories on the issue, such as need theories or cognitive dissonance theories (c.f. Maslow, 1943; Festinger et al, 1950), that explain why certain actors have the desire to attain leadership of the group, and therefore vertical brokerage, may be an interesting extension of my postulations. Moreover, theories analysing the behaviour of groups (c.f. Lewin, 1948), or frameworks such as the 'Motivation-ambition-opportunity' construct from behavioural psychology (c.f. Hallahan, 2000) may also help to form a more coherent understanding of what occurs at the SHG level.

Furthermore, an observation I made on my field trip, and from the findings as a whole, is a characteristic that I would like to encompass by the '**pre-selection/self-selection model**'. It seems that intermediaries and brokers are often pre-selected by actors further up the hierarchy (e.g. loan officers or NGO representatives) based on certain qualities, such as the level of education, or other skills and actor possesses. However, this also requires the actor to 'self-select' themselves as brokers; this simply framework therefore presents an interesting juxtaposition of concepts from the social networks sphere, and more behavioural psychology,

and is perhaps an additional line of inquiry that could be followed to truly understanding who the ‘microfinanciers’ are.

Additionally, the survey and my own findings show that almost all SHG members questioned still use informal sources of credit and even moneylenders in conjunction with microlending programmes. This seems to indicate that what is happening in the Indian microfinance context is more a form of **network arbitrage** between the informal financial sector and the competing microcredit domain, and rather than conflicting directly, they are merely substitutes for one another. This issue also needs further scrutiny before definite conclusions can be made.

Clearly, a number of criticisms can be levied at this thesis - the scarcity of data in particular - but it can also be argued that the paper is built upon quite an abstract theoretical basis. However, these criticisms would have to take into account the true difficulty of studying the issue of brokerage in the microfinance setting and would somewhat belittle the resources needed for its study. A prolonged exposure within the field would be required to completely answer the questions posed within this essay, and it is hoped that this thesis therefore provides an interesting platform upon which a more detailed investigation may be built.

However, even with the difficulties of isolating the intermediaries involved, it is hoped that this thesis makes some interesting contributions. Most crucially, there has never been – to my knowledge, at least – as direct an application of social network theory within the microfinance setting, particularly in terms of mapping out the actors involved. Even with its flaws, my findings – especially my quantitative results – have demonstrated that a more critical network lens, rather than soft applications of social capital currently used, can draw out interesting insights of the issues presented. I therefore end on the following note: that this paper has, at least in some small way, shown that social network theory can help improve microfinance delivery, and that it will hopefully be more fully utilised in years to come.

8. Appendices

Within these appendices are contained a number of theoretical sections which could not be included in the thesis, including a careful account of the key players and the models used for microfinance delivery currently in India and perhaps more importantly, my conceptualisation

of ‘tertius nectens’. It also contains in detail my qualitative field notes and the quantitative findings of my survey, which was administered by members of the Centre of Microfinance (CMF) at the Institute of Financial Management and Research (IFMR), Chennai.

8.1. Appendix 1: The Context - Microfinance in India

8.1.1. Historical Overview

The concept of microfinance, particularly microcredit, is neither new nor innovative. In particular, schemes now termed as ‘rotating savings and credit associations’ (RoSCAs), which are communal pools of money that are democratically assigned to those who need it most, have been around for centuries. While they are termed as ‘chit funds’ in India, they have been prevalent in other regions under the guise of ‘tandas’ (Mexico), ‘tontines’ (West Africa) and ‘arisan’ (Indonesia). Indeed, the celebrated writer Jonathan Swift is credited with founding one of the earliest microfinance institutions, the ‘Irish Loan Fund System’, which made small loans to the poor with little collateral in the early 18th century⁶. However, the evolution of microlending in India, and particularly the South Asian region as a whole, has been pivotal in bringing the issue to the fore of international development.

Without question, the success of Grameen Bank in Bangladesh has been the major torchbearer and has helped to usher in a new age of microfinance. Literally translated as the ‘Bank of the Villages’, the initiative started off as a research project headed by Dr. Muhammad Yunus in 1976, when he was affiliated with the University of Chittagong. Heralding from humble beginnings, the bank has now disbursed almost \$7 billion since its inception, and is currently lending around \$715 million to the rural poor in Bangladesh⁷. The organisation and its founder were also awarded the Nobel Peace Prize in 2006, and stand as a seminal case illustrating microcredit’s power. It is unsurprising that numerous organisations began to replicate Grameen’s model in the subcontinent, and India in particular (c.f. Morduch & Rutherford, 2003; Nair, 2005).

Before focussing upon the status quo, it is helpful to examine the historical timeline of banking services for the poor within India. After the dust has settled following the nation’s protracted struggle for independence, an influent Reserve Bank of India (RBI) report in 1954

⁶ Source: CGAP

⁷ Data reproduced from www.grameen-info.org

highlighted the pressing need faced in extending banking to the impoverished section of society. This led to the establishment of a large network of rural cooperative credit banks in the 1950s, which were then subjected to a massive nationalisation drive under the reign of Indira Gandhi in 1969. This drive, where commercial banks were obligated to open rural branches, meant that during 1973-1985, bank branches in rural areas grew at 15.2% each year, a rate that was twice that of its urban counterparts. This, Babu & Srivastava (2005) highlight, means that there exists a vast formal banking system for the rural poor, amounting to 32,000 rural branches of commercial banks and regional rural banks (RRBs), 14,000 co-operative bank branches, 98,000 primary agricultural credit societies (PACS) and a post office network that has 154,000 outlets which are meant to aid the rural population with numerous financial transactions.

Clearly, in the India's case (as illustrated in Figure 16), it is not the lack of a formal banking system for the rural poor that is the problem, but instead, the fact that the formal system remains inaccessible to them, mainly because they don't constitute eligible clients even in the eyes of the rural bank manager (c.f. Basu & Srivastava, 2005). Moreover, cultural norms and perceptions mean that many rural clients are untrustworthy and unsure of using formal banking, and are often actively discouraged by the community in doing so (c.f. Ananth et al, 2004; Kanak & Iugini, 2007).

In particular, inaccessibility to formal banking is intertwined with existing prejudices and barriers within society. As Kropp & Suran (2004) highlight, women are particularly vulnerable, and it is thus unsurprising that numerous microfinance initiatives have attempted to both provide them with much needed credit, but to also empower them in the process (c.f. Ross & Savanti, 2005). It is this aspect that has led to a key innovation within microfinance that emerged from the subcontinent – that of the 'Self-help group', or the SHG.

Pioneered by Grameen, but also by other innovative microfinance organisations such as SEWA Bank in Gujarat, the SHG is simply a group of women from a local community, who meet on a weekly basis while an outside representative (such as a loan officer) is present. During such meetings, the SHGs discuss various issues relating to finances, and also routinely save or repay money, depending upon the microfinance services the use. This 'solidarity approach' is decidedly democratic, and has gone on to become the most common

end-user for most microfinance services, particularly in the Indian subcontinent (c.f. Daley-Harris, 2005).

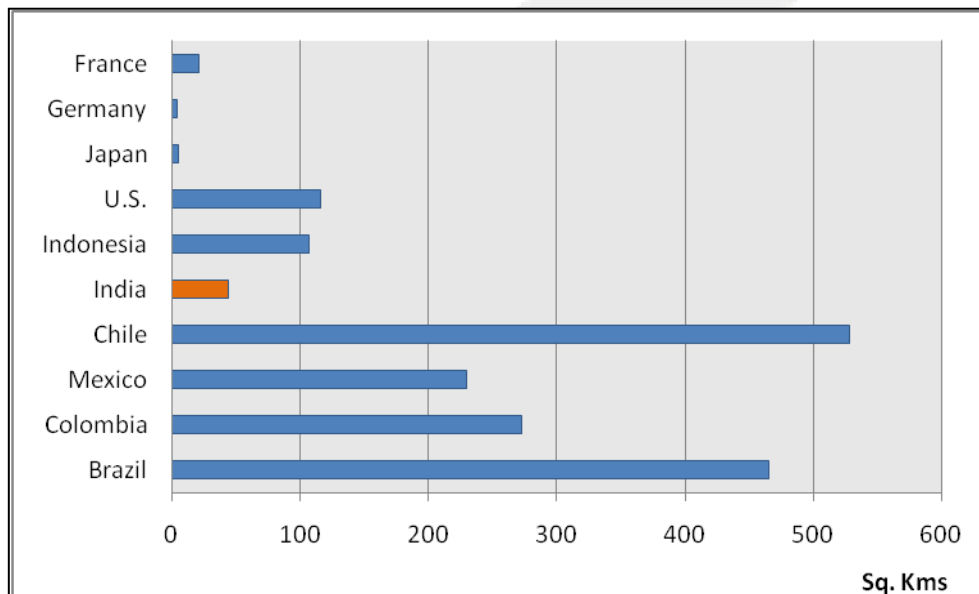


Figure 16: International comparisons of geographical area covered per branch⁸

By the 1980s, the rural financial system in India was virtually in collapse, under the face of heavy governmental regulation and adverse market conditions. Thus, in the early 1990s, India undertook a vast liberalisation of its banking system under the guidance of the International Monetary Fund (IMF) (c.f. Bansal, 2003). This liberalisation also led to the development of a new scheme for microcredit delivery, the SHG-bank linkage model. In 1992, the National Bank for Rural and Agricultural Development (NABARD) of India launched a small pilot programme, where 500 SHGs were linked to commercial banks through the help of NGOs. NGOs act as key mediators between the two factions, and help to translate the more unstructured repayment and often personalised practices of the SHG into the more formal procedures that banks are used to dealing with. The SHG-bank linkage programme now involves more than half a million SHGs, and is seen by many as the ideal pathway for microfinance in India, due to its ability to marry the large and adept formal rural banking sector and the massive but unmet demands within the rural community (c.f. Fouillet & Augsburg, 2007).

⁸ Source: World Bank (Brazil), "Access to Financial Services", 2003

8.1.2. The effectiveness of microfinance delivery and brokerage

Clearly (as detailed in Appendix 1) the second model of SHG-bank linkage, where NGOs acts as mediators between SHG and the formal banking system, would seem to be the most effective method in terms of poverty alleviation. Issues such as corruption and exploiting the poor, one would hope, would not afflict NGOs, considering their positive mission. However, the motivation for this paper is the following: microfinance delivery in India is not succeeding entirely, and it is my belief that **the process can be vastly improved by studying these intermediaries, and the relationships that they facilitate.**

The reasons for why microfinance has not succeeded on the same scale as Bangladesh (with Grameen Bank) and Indonesia (with Bank Rakyat) are manifold, and linked to the inherent complexities of India, the largest democracy in the world (Basu & Srivastava, 2005). This relative failure is evidenced by the fact that the informal financial sector still continues to serve large sections of both the rural and urban poor. Some, such as Jones et al (2003), postulate that informal agents “like pawnbrokers, offer advantages to poor clients in terms of speed, minimal paperwork, small and multiple loan provision, and embeddedness in local culture”. Moreover, even though the high quality of financial services from NGOs and other microfinance institutions (MFIs) in India is recognised, their combined outreach, a decade earlier at least, was less than 0.5% of the population (Thorat, 1999).

This conflict between the formal and the informal reappears in many studies, such as Murdoch & Rutherford (2003), who feel that informal moneylenders still offer a level of convenience and flexibility to the poor that is unmatched by the formal banking system. Some, such as Arun (2004) and Basu & Srivastava (2005) blame rigid governmental regulation that constricts the adaptability of NGOs and other organisations, with the latter stating that “[the Indian] government has an important role to play in creating space and a flexible architecture for [microfinance] innovations”.

Others lay the blame on MFIs themselves, and their lack of financial sustainability (Ananth et al, 2004), their lack of understanding of the needs of the poor and issues, such as seasonal variability (Ross & Savanti, 2005) and their lack of infrastructure and employee incompetency (Parikh, 2006).

However, a clearer picture emerges if one considers who are helping to form SHGs in India, or to rephrase the question, who are the Self Help Promoting Institutions (SHPIs)? Table 3 below answers this query and paints an interesting picture as to why microfinance schemes, particularly SHG-Bank linkage programmes, may be more inefficient than hoped:

SHPI	NGO	Bank	VVV	Govt. agency	Individual Agent	No SHPI
Numbers promoted by 31.3.2002	136000	80000	2000	242000	Not known	Not known
Percentage	30%	17%	1%	52%	n/a	n/a

Table 3: NABARD study on SHPIs, showing who are helping to form SHGs, from Harper (2002)⁹

The table above paints an interesting picture that contrasts with the findings of Bansal (2003). Although NGOs are primarily responsible for linking SHGs with the formal banking system, the majority are being formed through government agencies, which are unsurprisingly riddled with corruption. Moreover, there is no data on individual agents who are helping to promote SHGs for individual gain, although these people are certainly in existence (c.f. Harper, 2002). The discussion therefore returns to the intermediaries involved. Clearly, there needs to be a greater understanding of who these ‘microfinanciers’ are. Moreover, as Matin & Hulme (2005) surmise, “in a society where patron–client relationships are central to economic life, social networks and a household’s position within wider social structures are important factors in accessing public benefits”. It is with all of the above that I concluded that the process of **microfinance delivery would benefit from adopting a more social networks perspective, particularly in studying the intermediaries, or ‘brokers’**.

8.1.3. Key players in the Indian microfinance domain

Figure 17 below clearly illustrates how complex the picture can be when one tries to views the current microfinance landscape in India. Therefore, in this section, I present a brief summary of the key players and stakeholders involved:

⁹ Note that the study ignores professional individuals who promote SHGs as part of their livelihood, and SHGs that form independently, although both exist. VVVs refer to Volunteer Vahini Clubs, which are all-male farmers’ associations

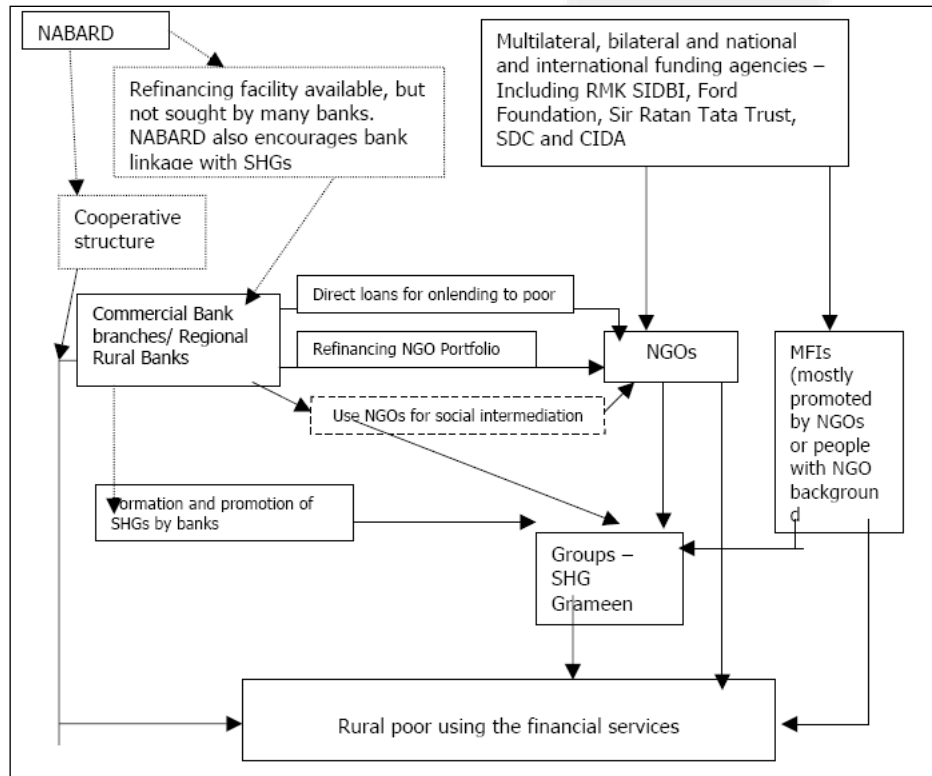


Figure 17: The complex overlap between the key players in the Indian microfinance setting

The Reserve Bank of India (RBI): The central bank of India. Regulates the Indian banking system, and as such, has passed a number of guidelines as to what constitutes ‘microfinance’, and which institutions qualify as such (c.f. Sriram & Upadhyayula, 2002).

National Bank for Rural and Agricultural Development (NABARD): Acts as the facilitator of the RBI’s policies towards rural areas. Is an, “apex development bank with a mandate for facilitating credit flow for promotion and development of agriculture, small-scale industries, cottage and village industries, handicrafts and other rural crafts.”¹⁰ As well as providing refinancing to lending institutions in rural areas, NABARD also acts as a coordinator in the operations of rural credit institutions. Instrumental in the development of the SHG-Bank linkage programme aforementioned (c.f. Harper, 2002).

¹⁰ Source: www.nabard.org

Commercial Bank branches/Regional Rural Banks (RRBs): Vast network of rural branches that offer banking services to the poor, and often referred to as the ‘formal banking system’. NABARD hopes to convert many of these into ‘Self-help promoting institutions’ (SHPIs), in line with its SHG-bank linkage model (c.f. Bansal, 2003).

NGOs: Non-governmental organisations, of which India has in the order of millions¹¹. Numerous NGOs, such as SEWA in Gujarat and PRADAN in central India, have been highly influential in crucial evolutions of microfinance delivery. Their not-for-profit mission makes them an ideal mediator for SHGs, and they are thus seen as a key link by NABARD for SHG-Bank linkage.

MFIs: Microfinance institutions, which are often supported by NGOs. They are often distinguished from NGOs however, as many such as SKS and Equitas in South India are aiming to become financially sustainable, an aim not often reached by the former. Often “enjoy better local knowledge and proximity”, and often operate a level below large national NGOs (c.f. Hardy et al, 2000). However, the difficulty in distinguishing ‘MFIs’ from ‘NGOs’, particularly in India, is illustrated in the ‘microfinance egg’ shown in Figure 18 overleaf.

SHGs federations: A fairly recent strategy pursued by NABARD, to federate groups of SHGs and thereby give them greater autonomy, but also as an exit strategy for NGOs and other mediators after building up SHGs in a particular region. Their viability and effectiveness is still under debate (c.f. Nair, 2005). Often termed ‘apex organisations’ or ‘Mandal Samakhyas’ in certain regions of India, their organisational structure is illustrated in Figure 19 overleaf.

¹¹ Source: www.indianngos.com

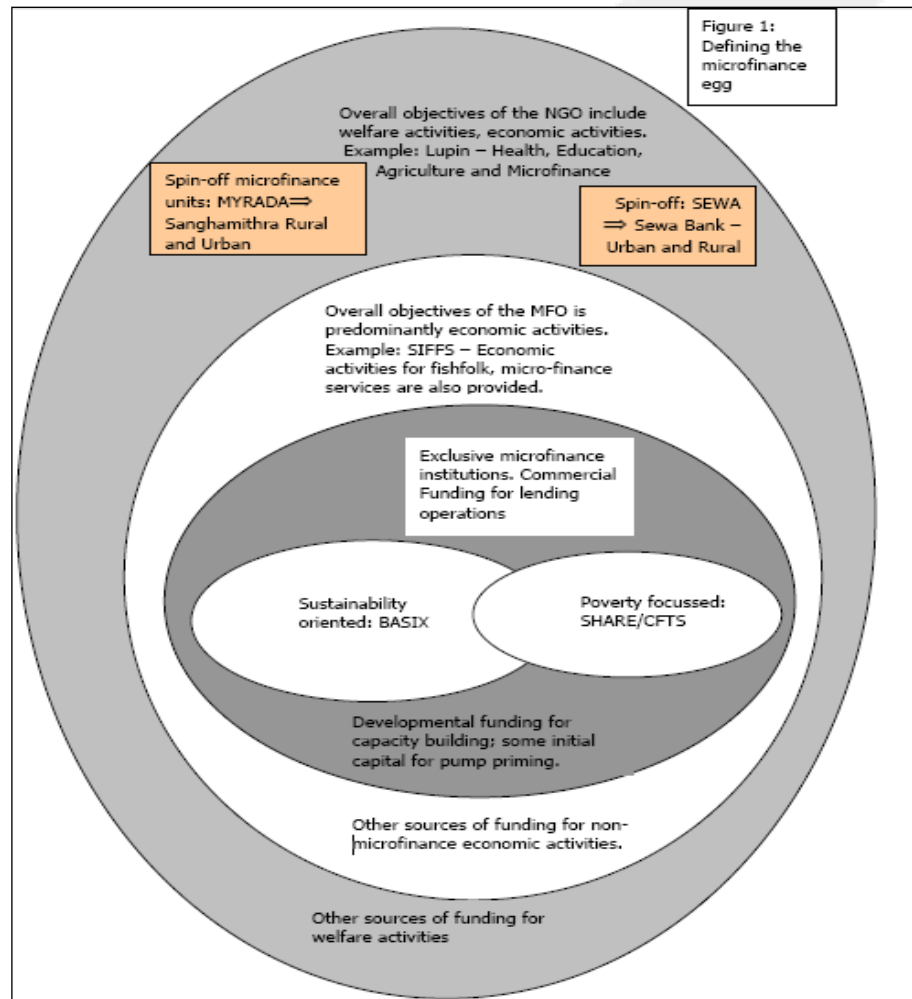


Figure 18: ‘Deconstructing the microfinance egg’ (Reproduced from Sriram & Upadhalaya, 2002)

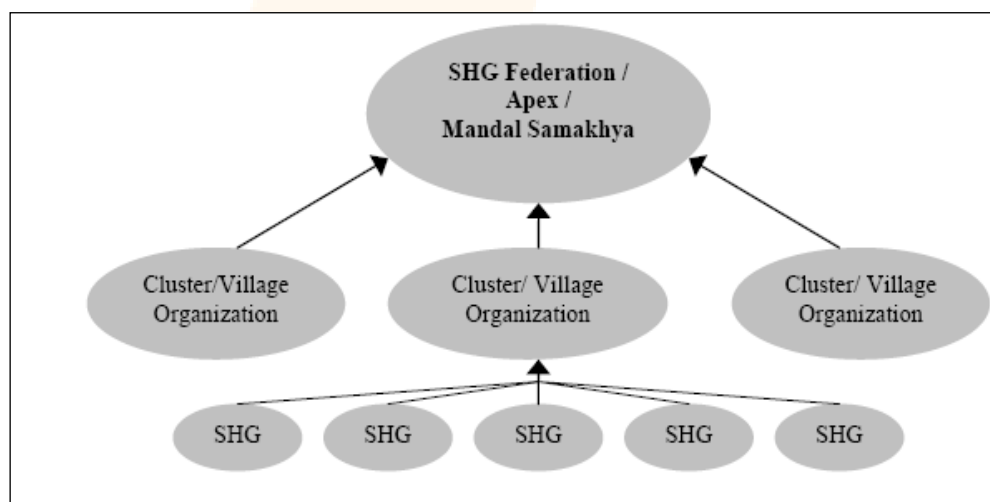


Figure 19: The typical configuration of an SHG federation (Reproduced from Reddy & Manak, 2005)

SHGs: The classic ‘self-help group’. Microfinance programmes in India and the subcontinent rarely lend to individual borrowers, and instead use the group

model pioneered by Grameen. Has an average size of seventeen, meets on a regular basis and facilitates solidarity lending, which thereby eliminates the need for collateral. Often the basic unit of analysis in microfinance studies (c.f. Fouillet & Augsburg, 2007).

RoSCAs/'Chit funds': The precursor to modern microfinance programmes in India and the subcontinent as a whole. Have been in existence since pre-colonial India, and are still active today. Communities make small timely contributions, which are usually dispensed to those determined to have the greatest need. The scheme even operates at an organised level, and is regulated by the Chit Funds Act, 1982.

Moneylenders: Often considered the 'informal finance' available to the poor (Jones et al, 2003). Informal financing for the poor can range from loans from neighbours and family members, but the term is generally used for professional moneylenders who tend to charge extortionate rates relative to MFIs/NGOs (Tiwari & Fahad, 2004; Karani, 2007). Generally considered to be a part of the problem, and not the solution – **whether this is truly the case is a central question within this paper.**

8.1.4. Current models in use for microfinance delivery

As detailed within the historical overview, the most common form of microfinancing in India now operates through the SHG-bank linkage paradigm. This, amongst other measures, have ensured that rural borrowing is now drawn more from formal services than in preceding decades, although informal moneylenders still play a large role, as shown in Table 4 from Bansal (2003):

Year	Institutional				Non-Institutional		Others*
	Banks	Cooperatives	Government	Total Instnl.	Relative/Friends	Moneylenders	
1951	1.1	4.6	3.1	8.8	14.4	68.6	8.2
1961	0.3	10.4	6.6	17.3	5.8	60.9	16
1971	2.4	20.1	6.7	29.2	13.8	36.9	20.1
1981	28.6	28.6	4	61.2	9	16.9	12.9
1991	29	18.6	5.7	53.3	6.7	15.7	24.3

*"Others" includes non-institutional sources other than friends and relatives and moneylenders, e.g., traders, agriculturist money lender, landlord, etc.

Source: All India Rural Credit Survey and All India Debt and Investment Surveys (AIDIS)

**Table 4: Share of rural household debt by source of credit, All India, 1951-91
(percentages)**

However, with the often complex overlap between the various microfinance organisations in India, as aforementioned, it is unsurprising that there are numerous models for microfinance delivery even within the SHG-bank linkage construct (Parikh, 2006). However, one can narrow down these models into three principal forms, as detailed by Bansal (2003):

- **Model 1: Bank-SHG-Members:** The bank itself acts as a self-help group promoting institution (SHPI).
- **Model 2: Bank-Facilitating Agency-SHG-Members:** Facilitating agencies such as NGOs, government agencies, or other community-based organizations help to form SHGs, and then aid them in forming relationships with local banks.
- **Model 3: Bank-NGO-MFI-SHG-Members:** NGOs act both as facilitators and microfinance intermediaries. First they promote groups, nurture them, and train them, and then they approach banks for bulk loans for lending to the SHGs. It could be argued that this method is greater in terms of poverty alleviation, but many MFIs operating under this model find it difficult to be financially sustainable.

The relative use of each model is shown in Table 5 below. We can see from this that the overwhelming majority use model 2, that where facilitating agencies such as NGOs and other related organisations act as intermediaries between SHGs and banks. This therefore, would seem to be the obvious unit of analysis in terms of SHG-bank linkage models.

Model	SHGs		Bank Loans	
	Number of linkages	Percentage of total	Amount (Rs in millions)	Percentage of total
1	13561	14	339.79	18
2	65636	70	1339.95	69
3	15448	16	250.10	13

Table 5: The relative usage of each model, as detailed by Bansal (2003)

However – and this is an important point to note – the models and statistics detailed above still only relates to the formal banking system available to the rural poor. As shown by Figures 20 and 21 below, the penetration of the SHG

paradigm varies hugely from region to region, and therefore the above cannot be considered representative for India as whole.

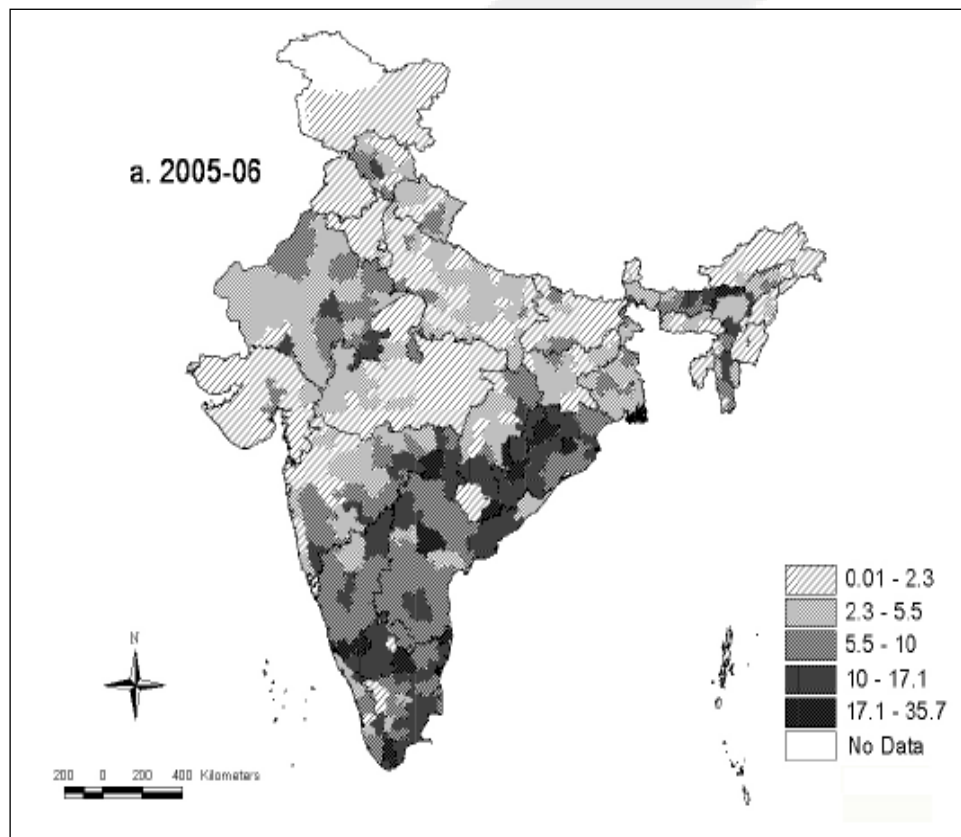


Figure 20: District distribution in relative share of SHGs (measured by natural break percentage, reproduced from Fouillet & Augsburg, 2007)

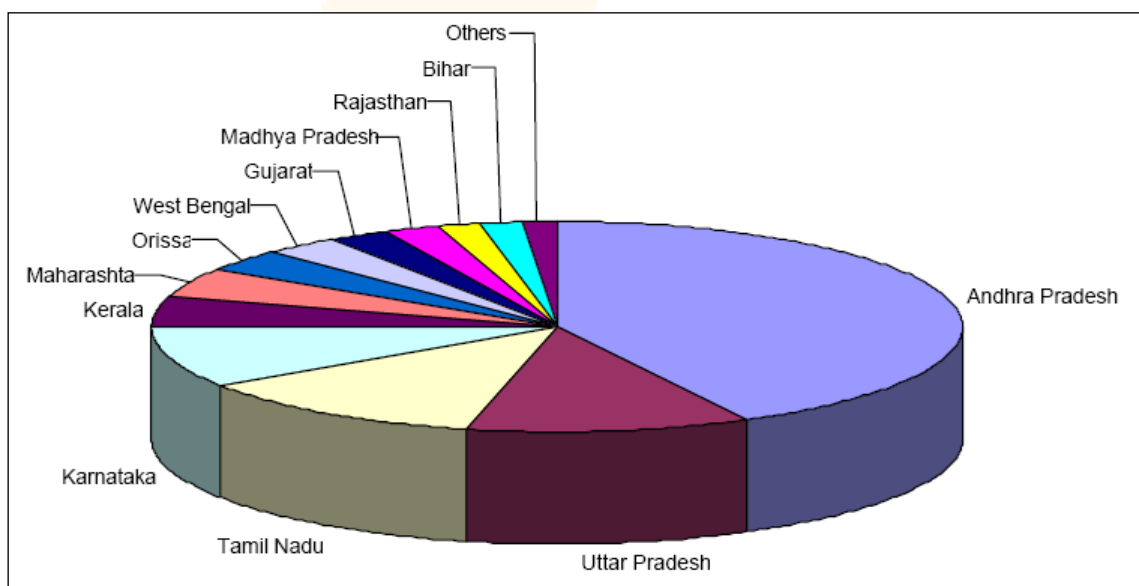


Figure 21: State-level variation of the SHG-bank linkage model, reproduced from Chakrabati (2005)

Clearly, when considering India as a whole, it is difficult to generalise across all regions. As evidenced from the above (especially Figure 21), South India and in

particular, the state of Andhra Pradesh, have been where the SHG-bank linkage model has attained the most success and penetration. The reasons for this are numerous yet simple: the state has better institutional support, and has developed microcredit programmes earlier than the rest (Bansal, 2003).

In any case, as Fouillet & Augsburg (2007), state wide variations can be explained away by considering the great variation in state level government in India, as well as cultural and societal variations in different regions. What is interesting to note, however, is the district level variation as highlighted in Figure 20. As Fouillet & Augsburg argue, India seems to be witnessing ‘microfinanciarisation’, that is, the build up of institutions supporting SHGs, in a fairly random pattern. What determines those regions that gain the opportunity to formal credit and those that don’t? Could this be determined in part by the intermediaries that operate in these regions? These are only some of the questions that invoke the concept of brokerage, and were an important starting point for the points made in this thesis.

8.2. Appendix 2: ‘Tertius Nectens’

The following is a description of my conceptualisation: the ‘tertius nectens’ inclination, a framework to explain the behavioural aspect of brokerage, and how this will affect the long term structure of said broker’s networks.

Tertius nectens is a phrase derived from Latin, in the vein of Simmel (1950) and Obstfeld (2005) and translates into the following: ‘the third who binds’. It is my conceptualisation of the behavioural aspects of brokerage; to further elucidate this concept, I present the minute network overleaf, composed of merely three actors, A, B and C:

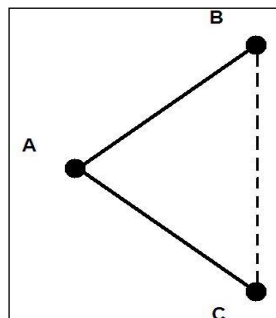


Figure 22: A simple triadic network, comprised of actors A, B and C

The figure shows a simple triadic relationship, which I will use as my basic unit of analysis. I will analyse this triad by imposing the following basic assumptions: that in this example, at the birth of the network, the actors have no prior relationship with one another and that they are aware of and are free to interact with one another. The figure therefore represents a possible outcome over time of the interactions between the actors, and the subsequent network configuration. The resultant triad is one where actor A has strong ties with B and C, and that B and C has a weaker tie in comparison.

This does not violate Granovetter's (1973) principle of the 'Forbidden Triad', as B and C may have a weak relationship as shown. Moreover, in the context of this paper, I am viewing network relations from a more micro-entrepreneurial rather than a friendship perspective. For example, A could be a moneylender who is connected to B and C, who are two members in the same village, but who have no tie with one another. In such a case, the concept of the forbidden triad would not necessarily hold, as A would not have to feel discomfort over B and C's indifference with one another in the face of A's stronger relationships.

The diagram thus serves to provide an explanation of my concept of *tertius nectens*: that the current network configuration is more constrained in nature (than it necessarily has to be) due to the fact that B and C have chosen not to form a strong relationship with one another, thereby having to rely more greatly on A. It is therefore in A's interest to maintain this status quo, and furthermore, ensure that the stronger ties (between itself and B and C) become stronger, thereby making B and C more reliant on A, and vis-a-vis, ensure that the weaker tie (that between B and C) become weaker, thereby making B and C more distrustful of one another, and again, more dependent on A.

Clearly, in a micro-entrepreneurial case, we can clearly see that such a strategic outlook from Broker A would be highly beneficial to him or her. It is with this in mind that I make the following proposition:

Proposition 1: When a triadic relationship exhibits strong ties between an ego-broker, and its alters, and the alters exhibit a relatively weak tie with one another, the ego-broker will engage in *tertius nectens*, whereby it will attempt to (actively or

passively) strengthen its own ties while breaking up that between its alters. It will thus attempt to be the 'third that binds', thereby constraining the network configuration and securing its own dominant position.

To explore the next unit of analysis relating to this essay, I will employ the following figure, that of a dual triad, where broker A is now also the bridge between two identical triads:

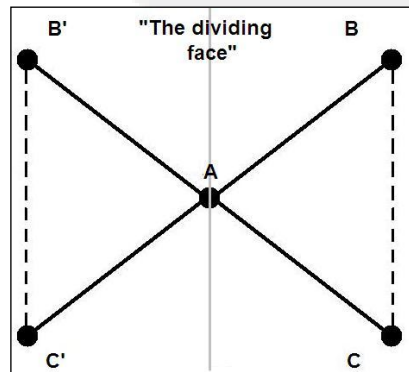


Figure 23: Dual triad structure to illustrate 'the dividing face'

Tertius nectens, the inclination to simultaneously strengthen and divide ties, will work at the next level of analysis in the method shown within the figure. Here, a basic dual triad is shown, one that is essentially two versions of the simple triad outlined in Figure 22. In this network configuration, Broker A is now the bridge between two overlapping triads, where all relationships not engaging with A are weak in nature. In the microfinance setting, this could be a key intermediary bridging the divide between two NGOs (B' and C') and two village communities (B and C).

Although this may seem to be an extreme case of a network configuration, which may not often evidence itself in real life, I once again stress that any oversimplifications made during my analyses are done to promote the generalisability of my hypotheses. It is with this in mind that I make the following proposition:

Proposition 2: When a ego-broker is the bridge between two overlapping triads, where all its relationships with its alters are strong, and those between its alters are weak, tertius nectens dictates that the ego-actor will attempt to build a 'dividing face' (an intangible barrier, that is used either actively or passively) to ensure that its constituent sets of alters cannot and do not interact with one another. It will thereby

protect its own position as the ego-broker, subsequently constraining further the network structure.

What therefore occurs when the aims of the ego-broker in Figure 23 (as dictated by *tertius nectens*) have been successful, as shown in Figure 24 below:

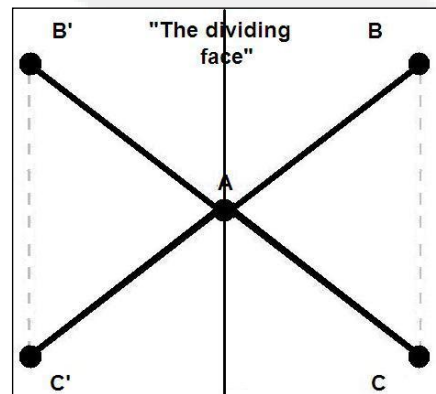


Figure 24: Dual triad structure where ego-broker A has been successful in employing tertius nectens

As seen in Figure 24, the ego-broker A has now succeeded (this may be over an extended period of time), through its inclination of *tertius nectens*, to separate the two triads using a 'dividing face' and to further strengthen its own ties, and simultaneously weaken further those of its alters. Following Proposition 2, this dual triad presents the ego-broker's expression of *tertius nectens* near to its full, with the extreme example being one where there are no ties whatsoever between its constituent alters. It is with this in mind, that I make the following propositions:

Proposition 3a: The more successful that an ego-broker is in utilising *tertius nectens*, the more it will constrain its constituent alters, and thus the entire network configuration as a whole.

Proposition 3b: The more constrained the network configuration, the greater the dependency of alters on the ego-broker; therefore, the more likely that ego can defend its brokerage position from new entrants.

Proposition 3c: Therefore, in networks where *tertius nectens* has been employed successfully, any alterations to the network structure will be fought strongly by the existing broker.

8.3. Appendix 3: My notes from the field

As mentioned within the thesis, the following are a detailed summary of the notes I compiled while out researching in the field, during the 16th and 30th of March. Due to non-disclosure reasons, I have chosen not to transcribe any of my notes which mention information sensitive to the organisations involved. The major findings that could be drawn from my notes are discussed in Sections 4 and 5 of my thesis; the following are meant to be for reference purposes only:

8.3.1. Meeting at the Centre for Microfinance (CMF) of the Institute of Financial Management and Research (IFMR), Chennai, on the 18th of March, 2009

Those present at the meeting from the Judge Business School:

- Jaideep Prabhu, Jawaharlal Nehru Professor of Indian Business and Enterprise; Director of the Centre for India & Global Business (CIGB)
- Navi Radjou, Executive Director, Centre for India & Global Business
- Prasanna Kannan, MPhil ISO student

Those present from the CMF of IFMR:

- Justin Oliver, Executive Director of the Centre for Microfinance
- Theresa Chen, Programme Head for the Credit & Savings Team
- Doug Johnson, Research Associate

Transcript of hand-written notes from the meeting:

- *Jaideep and Navi mention the recently launched Centre for India & Global Business at the Judge Business School, and its aims in studying microentrepreneurs and microinnovation. Kiranas, e-chopas, telecentres and other small retail outlets are mentioned as examples.*

- *Jaideep expresses his interests in working with the CMF on field experiments, or the opportunity to work on longitudinal data already compiled. The discussion then moves towards the microfinance realm.*

- *Justin mentions some of the CMF's work, including recent work on loan officers (i.e. the intermediaries) with SEWA Bank in Gujarat.*

Point made that the agent-based model of SHG-bank linkage only legalised in 2006, and pioneered by FINO, an offshoot of ICICI bank.

- *The discussion moves towards the question of whether the microfinance can be scaled up for India as a whole. SKS, Equitas and Share are some examples cited "of many that are scaling up successfully".*

- *Non-banking MFIs in Hyderabad, the "centre of microfinance in India", also cited*

- Justin comments that they succeed by “keeping organisational costs really low by being as inflexible as possible” – alludes that the impact on poverty alleviation and the financial sustainability of MFIs may have a direct trade-off
- Details given on Equitas model: Loans of Rs. 10,000 to 15 SHG members, over 100 weeks, with an annual interest rate of 22%, which works out to repayments of Rs. 255 on a weekly basis. 15 minutes after the SHG meeting, an Equitas employee logs payment details and this is transferred through mobile telephony to headquarters.
- The SKS model referred to as the “Starbucks model” by both Justin and the founder of the programme himself.
- The point is made that as many MFIs are derived from NGOs, or their models for microfinance delivery, there is generally a reasonable focus on poverty alleviation.
- The discussion moves towards the topic of microcredit versus microinsurance, a topic put forward by Jaideep. However, Justin in particular, was sceptical of its effects due to issues of ‘trust’, ‘learning’ and understanding the needs of the local community.
- The idea of ‘super local ambassadors’ (SLAs) are mentioned, with Dr. Mohan’s Clinic, a medical service targeting the poor, mentioned prominently. The notion that such SLAs are deeply embedded within their communities and therefore can easily build trust and more easily understand the difficulties faced by clients touched upon.
- Point made that MFIs in India mainly use the SHG model and there is always a group leader, some of who received specialist training for this.
- Details given of the CMF: branched off from IFMR, which is a business school, the centre was founded in 2004, specifically for field testing. The CMF partners with various microfinance institutions in the country, with roughly half its focus on randomised control trials with carefully controlled variables, and the other half on shorter projects and case studies.
- Currently undertaking a 15 year study for a leading US university. Have various links with Ivy League business schools.
- The CMF has some funding from trusts, but is composed mainly of academics.

At this point, we are joined in the meeting by Shreyas, who is the head of a government contracted land record programme in Karnataka. Due to NDA reasons, not all of my notes will be included here:

- *'The spoken web' model important for such programmes, as the rural poor are not yet familiar with mobile telephony.*
- *The programme has 500 centres at the 'hubli level', or groups of 40 villages, which amounts to around a 1000 households, all within a 7-8 kilometre radius.*
- *The centres mainly offer government services, but also micro-insurance and other financial services.*
- *Centres also have a 'small enterprise finance centre', which offers loans between 2 to 25 lakhs – but these clearly target a more affluent sector of the population than those analysed within this thesis.*
- *Each district has a district manager, who must apply through HR departments in nearby cities and town. Interesting as such intermediaries are essentially **pre-selected and self-selected**, in terms of their awareness of such opportunities and whether they have the required qualifications for such a role.*
- *The programme has been trialled in coastal Karnataka, and has thus far proved a success.*

At this point, I discussed my research question individually with Doug Johnson, who has worked for numerous years in India in microfinance initiatives in both Tamil Nadu and Uttar Pradesh.

- *The fact that Andhra Pradesh has huge programmes for SHGs that predated microfinance seen as a vital reason for the success of microfinance in the state. - Points to the need for institutional intervention for such initiatives to work.*
- *The notion of 'indebtedness' is a lot higher in the Southern states.*
- *The MFI – employee – village and NGO – 'Board'/Governmental level – SHG models are contrasted, with pros and cons for both.*

8.3.2. Meeting with Mahesh, Managing Director of Commonwealth Microfinance (India) Ltd., in Chennai on March the 19th, 2009

Again, for NDA reasons, much of my notes have not been transcribed. Here is a brief summary of the portions of the discussion relevant to this thesis. The same members from the Judge Business School from the IFMR meeting were present at this meeting.

- An overview of the current project headed by Mahesh, which aims to provide commercial banking services for the poor, was detailed. The scheme is currently headed in Thanjavur, a city in a rural section of Tamil Nadu.
- The discussion then moved towards microfinance; the power of 'interactive voice recognition' (IVR) software, 'point-of-sale' (POS) devices and mobile telephony firstly mentioned.
- Equitas model firstly highlighted; Mahesh claimed that the model is inefficient as the collection and dispersion of money for MFIs are very difficult, due to liquidity issues and the need to physically collate monies. The use of card based services seen as a way to lower the transaction costs of MFIs and therefore their financial sustainability as a whole.
- FINO's 'a little world' model, trialled by ICICI bank, ACCION mentioned as competitors.
- Mahesh sees India's vast post office network, 28,000 of which are in Tamil Nadu alone, as an unused resource for microfinance delivery.

8.3.3. Visit to Microsoft Research Labs, Bangalore, on the 25th to 26th of March, 2009

During this two-day visit, I had the chance to meet with various people working in different sectors relating primarily, and unsurprisingly, to technology at the micro level. However, issues directly relating to microfinance and my research focus were touched upon, and it was through the Research Lab that the opportunity to visit the Ragigudda urban slum was attained. The following are there transcripts of my notes which relate to my research focus.

1st Meeting, morning of the 25th, with Kentaro Toyoma, Assistant Managing Director of Microsoft Research India (MSR India):

- The discussion began with a focus on telecentre/kirana shop style services. - Numerous services, such as Bhoomi, Akshaya centres and Comak were mentioned. A key point raised was that the technologies were available to the poor, but the problem was more one of governmental inertia.
- The Bhoomi case was highlighted in particular. The importance of Rajeev Chavla as a leader, and his clear aim to reduce corruption at the local level were stated as key factors. The Bhoomi projected essentially rendered the 'village accountant'

obsolete; however, the success of removing this previous broker/intermediary was because an **entirely new system ‘cannabilised’ the old system**, through digitisation.

- The importance of **‘self-selection’** was also highlighted. Institutional intermediaries, including governmental organisations, were more willing to work with those “who knew everyone in the village”, as such microentrepreneurs were more qualified as bridges to rural communities than others.

- Institutional failures, how lots of government projects are “declared successes in the short term”, and how there are a “lot of birth and death process” were cited as key barriers to overcome in the region.

- Dhristi and NCG were highlighted as government projects for rural development that failed early on due to corruption and the fact that they were seen as drains on funding.

- Poor organisation of projects also highlighted; lack of clear social aims, lack of upstream capabilities and connectivity noted as reasons for failure of projects. The fact that rural development focuses on too many aims also seen as an issue. The fact that technology can only empower existing movements also highlighted.

- The lack of government cooperation also mentioned. They are generally unwilling to allow independent studies of project and were resistant to surveying. However, even biased studies seemed to show institutional failures. The importance of rhetoric also noted.

- There seemed to be a need to undertake **taxonomy of brokers**. However, the idea of self selection came up once more, as well as the fact that they needed to identify stakeholders and manage relationships with all parties, something that perhaps requires certain social skills and education.

2nd Meeting, morning of the 25th, with Indhrani Medhi and Aishwarya Ratan (Research associates) also present:

- The ad-hoc processes by which technologies are disseminated highlighted. A lot of this is due to ‘political demagoguery’ which is the root of various programmes, which are therefore simply an appeasement of rural interests or a symbolic measure.

- At the district level, there is a lack of understanding and a lack of resources for researchers to do extensive field studies of what works.

- *The conversation moved onto mobile banking, particularly the M-Pesa case which Aishwarya has researched extensively. Although this is not directly related to this thesis, I attach my notes nonetheless.*
- *“Interfacing to the illiterate a key issue”. G-Cash in the Philippines, M-Pesa in Kenya and Ecko in South Africa highlighted as key innovators.*
- *Importance of agents also highlighted in this example, as they are key mediators of the mobile banking process. Cultural variations seen as a key hypothesis for lack of success of business models across nations.*
- *However, found with field research in Kenya that agents generally play a positive role rather than abuse the power that they have. The reason for this seems to be related to social capital, the fact that agents are generally from the local community, and therefore have to focus on long-term relationship management.*

3rd meeting with Nimmi Rangaswamy, and Associate researcher, afternoon of the 25th of March:

- *Nimmi is conducting research on urban slums in Mumbai, as highlighted in Section 4 of the thesis.*
- *The discussion began with chit funds, which as reviewed elsewhere in this paper, are small RoSCAs of around Rs. 5 a day, and feature prominently in slums. Cultural issues were also highlighted, and the fact that the poor tend to see a large discount factor for money. Research done has also shown that numerous assumptions and tradeoffs that MFIs assume are not always true.*
- *The conversation turned to the issue of scalability of MFIs; the Grameen/Pradhan models, it was pointed out, see the SHG model as a form of empowerment, rather than just a financial service. The point was made that the poor have access to credit, and that MFIs are simply a form of arbitrage.*
- *It was felt that there was too much focus on successful MFIs, which become “the centre of the universe when something works”.*
- *Nimmy highlighted some interesting issues in terms of brokerage in slums, which have been discussed in detail within the thesis, as shown by Figure?*
- *The conversation ended with Nimmi commenting on how many microfinance initiatives still seemed unable to reverse the ‘**Matthew effect**’ – which sociologist Merton (1968) termed as the “rich get richer and the poor get poorer”.*

8.3.4. Visit to IFMR Trust field sites near Thanjavur, 30th of March 2009

- I then travelled to Thanjavur, to go on an 8 hour rural field trip with the IFMR trust to various villages in the area.
- I took the place of researcher Deepdha Umapathy on the day, and embarked on what proved to be an ill-fated trip – our car was involved in a serious road traffic accident in which I suffered a broken tibia and was hospitalised for 10 days.
- Undoubtedly this curtailed some of my research goals, and my field notes end at this point in time, albeit incomplete.

8.4. Appedix 4: Survey administered to SHG members near Thanjavur

The following is a copy of the quantitative survey administered to the SHG members by Vaishnavi Prathap in Thanjavur. I designed it to be able to form adjacency matrices with which to build a cognitive social structure, or a collated view of the social network, as detailed in Kilduff & Tsai (2003). The instruction sheet for field researchers, the cover sheet with questions, as well as the matrix itself, are enclosed below:

Instruction Sheet (வழிமுறைகள் தாள்)

The purpose of this study is to map out the social network of a SHG

சுய உதவி குழுவின் சமூக கட்டமைப்பு எவ்வாறு செயல்படுகிறது என்பதை அறிவது தான் இந்த ஆய்வின் நோக்கம்.

- *Ideally, all members of the SHG will be surveyed, but responses from around a quarter of them can still give a good indication of the network*

சுய உதவி குழுவின் உறுப்பினர்கள் அனைவரும் ஆய்வு செய்யப்படுவார்கள். ஆய்வில் பங்கு பெருகின்ற உறுப்பினர்களில் கால் பகுதியினர் தருகின்ற தகவல்களே கூட கட்டமைப்பை பற்றிய விபரங்களை தந்துவிடும்.

- *The survey works in the following manner: each respondent is asked to map out the network as they see it, and all responses are correlated to give an overall picture of the network*

இந்த ஆய்வு கீழ்க்கண்ட முறையில் செயல்படுகிறது. ஆய்வில் பங்கு பெருகின்ற ஒவ்வொரு உறுப்பினரும் இந்த கட்டமைப்பை பற்றி என்ன கருதுகிறார்கள் என்று கேட்கப்படுவார்கள். பின்னர் அவர்கள் அனைவரின் கருத்துகளும் சேகரிக்கப்படும். அவைகளை ஒன்றோடொன்று தொடர்புபடுத்துவதன் மூலம் கட்டமைப்பின் முழுமையான வடிவம் தரப்படும்.

- This 'mapping' is done by asking each respondent which members have close ties with one another. For example, consider a group with three members, Anna, Betty and Carl

இந்த ஆய்வில் பங்கு பெருகின்றவர்களிடம் எந்தெந்த உறுப்பினர்கள் நெருக்கமாக உள்ளார்கள் என்று கேட்பதின் மூலம் இந்த முகப்பு செய்யப்படுகிறது. உதாரணமாக ஒரு குழுவில் உள்ள அன்னா, பெட்டி, கார்ல் மூன்று பேரை எடுத்துக் கொள்ளலாம்.

- Each member will be asked to fill in the following matrix in this fashion. If two members have a close tie, a cross is entered into that box. If not, it is left blank. Note the dark boxes as each member cannot have a close tie with themselves (numbers explained below):

ஒவ்வொரு உறுப்பினரும் கீழே உள்ள கட்டங்களை எந்த முறையில் நிரப்ப வேண்டும் என்று கேட்டுக் கொள்ளப்படுவார்கள். இரண்டு உறுப்பினர்கள் நெருக்கமாக பழகினால் ஒரு பெருக்கல் குறி அந்த கட்டத்தில் இடப்படும். இல்லையென்றால் காலியாக விடப்படும். ஒவ்வொரு உறுப்பினரும் தன்னுடைய பெயரையே நெருக்கமாக பழகும் உறுப்பினராக குறிக்க கூடாது என்பதை கருப்பு கட்டங்கள் உணர்த்துகின்றன (எண்கள் கீழே விளக்கப்பட்டுள்ளன):

	அன்னா	பெட்டி	கார்ல்
Anna		1	
Betty	2		
Carl			

- Each column represents the ties that person has with other members. For examples, column 1 is who Anna is close to. Column B is who Betty is close to. So the square 1 above indicates whether Betty is close to Anna. Square 2 indicates if Anna is close to Betty. Note: Usually, the ties will reciprocate, **but this is not always the case!**

ஒருவர் மற்றவர்களுடன் வைத்துள்ள நெருக்கத்தை நெடுவரிசை குறிக்கின்றது. உதாரணமாக முதல் நெடுவரிசை அன்னா யாருடன் நெருக்கமாக உள்ளார் என்பதை குறிக்கும். அதே போல இரண்டாவது நெடுவரிசை பெட்டி யாருடன் நெருக்கமாக உள்ளார் என்பதை குறிக்கும். எனவே மேலே உள்ள கட்டம் ஒன்று பெட்டி அன்னாவுடன் நெருக்கமாக உள்ளாரா என்பதை விளக்குகிறது. இரண்டாவது கட்டம் அன்னா பெட்டியுடன் நெருக்கமாக உள்ளாரா என்பதை குறிக்கிறது. குறிப்பு: வழுக்கமாக நெருக்கம் மாறுபடலாம். ஆனால் எப்பொழுதும் அப்படி நேர்வதில்லை.

- So the following could be a set of responses for the fictional network:

கீழே தரப்பட்டுள்ள தகவல்கள் ஒரு கற்பனையான கட்டமைப்பு

Anna's response:
response:

Betty's response:

Carl's

அன்னாவின் தகவல்கள்

பெட்டியின் தகவல்கள்

கார்லின் தகவல்கள்

	Anna	Betty	Carl
Anna			
Betty			X
Carl		X	

	Anna	Betty	Carl
Anna		X	
Betty	X		X
Carl		X	

	Anna	Betty	Carl
Anna		X	
Betty	X		X
Carl		X	

- So, as you can see from the above, Anna sees no relations between herself and the others, but sees Betty and Carl as being close. Betty and Carl disagree, and both feel that Betty and Anna are also close. Using these three responses, we can map a correlated network diagram.

மேலே உள்ள தகவல்களின் படி அன்னா தான் மற்றவர்களுடன் நெருக்கமாக இல்லை என்றும் பெட்டியும் கார்லும் நெருக்கமாக உள்ளதாகவும் பதிந்துள்ளார். ஆனால் பெட்டியும் கார்லும் இதை மறுத்து பெட்டியும் அன்னாவும் நெருக்கமாக உள்ளதாக பதிந்துள்ளனர். இம்மூவரின் தகவல்களின் அடிப்படையில் நாம் அவைகளை சம்பந்தபடுத்தி ஒரு கட்டமைப்பு வரைபடம் வரையலாம்.

- The same procedure should be done for the SHG. Attached is a matrix that is big enough for an SHG of up to 20 members. The procedure can be repeated by simply writing the names of the SHG members along the rows and columns. There is also a cover sheet before it with some general questions for each of the respondents.

இதே நடைமுறை சுய உதவி குழுவிற்கு செய்யப்படவேண்டும். இத்துடன் இணைக்கப்பட்டுள்ள கட்டங்கள் வரையப்பட்டுள்ள தாள் இருபது உறுப்பினர்கள் அடங்கிய சுய உதவி குழுவிற்கு போதுமானது. சுய உதவி குழுவின் உறுப்பினர்களின் பெயர்களை நெடுவரிசையிலும் குறுக்கு வரிசையிலும் எழுதுவதின் மூலம் நடைமுறையை மீண்டும் மீண்டும் செய்யலாம். ஆய்வில் பங்கு பெருகின்ற உறுப்பினர்களிடம் கேட்கப் பட வேண்டிய பொதுவான கேள்விகள் அடங்கிய முதல் தாளும் உள்ளது.

Cover Sheet (முதல் தாள்)

Questions for respondent (பங்கு பெருகின்ற உறுப்பினர்களிடம் கேட்க படவேண்டிய கேள்விகள்:):

Name of respondent/பங்கு பெருகின்றவரின் பெயர்:

Age/ வயது : _____

Number of dependants/ : சார்ந்துள்ளவர்களின் எண்ணிக்கை,

How long have you/your family lived in this area?

நீங்கள் அல்லது உங்கள் குடும்பம் இந்த பகுதியில் எத்தனை ஆண்டுகளாக வாழ்ந்து வருகின்றீர்கள்?

What is your opinion of the SHG?/

சுய உதவி குழுவைப் பற்றி உங்கள் கருத்து என்ன?

Do you still use informal sources of credit (family, moneylenders etc.)?

முறை இல்லாத இடங்களில் கடன் பெறுகின்றீர்களா (வட்டிக்கு பணம் கொடுப்பவர், குடும்ப உறுப்பினர் போன்றவர்கள்)?

Who would you say is/are the group leader(s) of the SHG? (If answer is there are no leaders, prompt them to specify. Can state up to three names) Why do you think this is the case?:

சுய உதவி குழுவின் தலைவர்/கள் என்று யாரை குறிப்பிடுவீர்கள்? (பதில் இல்லை என்றால் குறிப்பாக சொல்லும் படி தூண்டவும். மூன்று பெயர் வரை குறிப்பிடலாம்) அவர்கள் தலைவியாக இருக்க காரணம் என்ன என்று நினைக்கிறீர்கள்?

Do any of the SHG members live near to you?:

சுய உதவி குழுவின் உறுப்பினர் யாராவது உங்கள் அருகில் வசிக்கின்றார்களா?

Do you have family or other close ties with anyone in neighbouring villages/areas? If yes, details:

அருகில் உள்ள கிராமங்கள் அல்லது இடங்களில் குடும்பத்தினர் அல்லது நெருக்கமானவர்கள் உள்ளனரா? அப்படியென்றால் விபரங்கள் தரவும்:

Do you have any family in urban areas, or working in any banking/microfinance related fields?:

உங்களுடைய குடும்பத்தை சார்ந்தவர்கள் நகரங்களில் வசிக்கின்றார்களா? வங்கி அல்லது நுண்ணிதி போன்ற இடங்களில் உங்கள் குடும்பத்தை சார்ந்தவர்கள் பணிபுரிகிறார்களா?

Questions for the surveyor

ஆய்வு செய்பவருக்கான கேள்விகள்:

Brief description of their home and location, relative to rest of village:

ஆய்வு செய்யப்படுவர்களின் வீடு, இடம், கிராமத்தில் உள்ள மற்றவர்களுடன் அவர்களுக்கு உள்ள உறவு பற்றிய சிறிய குறிப்பு:

The personality of respondent: extrovert/sociable, or quiet and introvert?:

பங்கு பெறுபவரின் மனோபாவம்: சகசமாக பழகுவவர், அமைதியானவர் அல்லது மற்றவருடன் பழகாதவர்?:

Any other comments:

வேறு கருத்துகள்:

8.5. APPENDIX 5: Detailed quantitative methods and findings

8.5.1. Detailed methodology: Generating a Cognitive Social Structure (CSS)

In this section, a detailed account of precisely how I generated the CSS is mentioned for reference. I began by inputting the matrix responses into a DL spreadsheet format, through a simple editor available in UCINET, thereby forming the ‘adjacency matrices’ as detailed by Kilduff & Tsai (2003). I then used the ‘Join’ tool to combine these into a three dimensional ‘multi-relational matrix’ as described by Hanneman & Riddle (2005).

I then proceeded to use the ‘CSS’ tool available to generate cognitive social structures; a number of methods were used, including the Intersection-LAS method, but the unison method was decided upon due to the subsequent network diagrams plotted using NETDRAW. Details of both procedures are detailed below, as mentioned in the Help function of UCINET itself are detailed below:

DATA>CSS

PURPOSE Combines a number of different relations or cognitive "slices" of the same network into a single pooled network. These may either be a number of views of the whole network or the view of the whole network through all ego centered networks.

DESCRIPTION The input is a set of k adjacency matrices, each of the form $A(i,j)$ stacked into a three-dimensional matrix, $A(i,j,k)$. This form is useful for cognitive social structures, where k refers to the perceiver of a relation from i to j . This routine compresses this 3-D matrix into a two-dimensional matrix, $A'(i,j)$ using one of two methods. One is to compute the element-wise sum over the k matrices: $A'(i,j) = \text{SUM over } k \text{ of } A(i,j,k)$. This matrix can be dichotomized around a threshold to produce a "consensus" structure.

Alternatively, one can produce a "locally aggregated structure" (LAS) by setting $A'(i,j) = A(i,j,i) + A(i,j,j)$. In other words, the value of a given cell in the aggregate matrix is a function only of the perceptions of the two individuals involved, not the whole group. This matrix can also be dichotomized.

PARAMETERS

Input dataset:

Name of file containing any set of matrices representing the same network. Data type: Valued graph. Multirelational.

Method of Pooling graphs (Default = Slice)

Choices are:

Slice. Take an individuals view of the network. This simply extracts a single matrix from the structure.

Row LAS. Construct a matrix which uses each respondents row as a row in the data matrix. The result is that each row of the data corresponds to the respondents perception of that row.

Column LAS. Construct a matrix which uses each respondents column as a column in the data matrix. The result is that each column of the data corresponds to the respondents perception of that column.

Intersection LAS. Construct a matrix with a connection between i and j if both i and j agree that such a connection exists.

Union LAS. Construct a matrix with a connection between i and j if either i or j state that such a connection exists.

Median LAS. Construct a matrix with values $A(i,j)$ which are the median of i 's value of the i,j connection and j 's value of the connection.

Consensus. The consensus takes the sum of all the respondents and then dichotomises the sum.

Average. The average of all the respondents view of the network.

If the users choose either Slice or Consensus then the following parameters will be highlighted.

(For Slice Method) Which informants slice? (Default = 1)

Number of actor to be the informant

(For consensus method) Threshold value (Default =0.5)

Threshold value for dichotomising the aggregated matrix.

Output dataset (Default = 'Pooled')

Output file that will contain pooled graph .

LOG FILE Pooled graph adjacency matrix.

TIMING $O(N^2)$

COMMENTS None.

REFERENCES Krackhardt D. (1987). 'Cognitive social structures'. Social Networks 9, 104-134.

Clearly, the Intersection LAS is the most method of pooling the graphs generated from the data; however, due to how sparsely the data was distributed, the Union LAS method was used, even though it is a slightly inferior method. To illustrate this issue data, all findings are enclosed below.

8.5.2. Data collected by field researcher Vaishnavi Prathap during visit

The responses generated by the general questions of the survey were already included in the results section of the thesis. The following are the matrices filled in by the SHG members:

Thirupathi's response:

	Thirupathi	Jeyachithra	Indra	Ezhilarasi	Logeswari	Ilamathi	Sumathi	Rajeswari	Revathi	Vijaya	Gunavati	Devendri
Thirupathi							x					
Jeyachithra	x		x									x
Indra	x	x										
Ezhilarasi	x		x									x
Logeswari	x					x						
Ilamathi	x	x			x							
Sumathi	x											
Rajeswari												
Revathi												
Vijaya												
Gunavati					x	x						
Devendri	x		x									

Jeyachithra's response:

	Thirupathi	Jeyachithra	Indra	Ezhilarasi	Logeswari	Ilamathi	Sumathi	Rajeswari	Revathi	Vijaya	Gunavati	Devendri
Thirupathi							x					
Jeyachithra	x		x									
Indra	x	x				x						x
Ezhilarasi	x											
Logeswari	x					x						
Ilamathi	x		x		x							x
Sumathi	x											
Rajeswari												
Revathi												
Vijaya												
Gunavati			x			x						
Devendri	x			x								

Indra's response:

[illegible]

Ezhilarasi's response:

[illegible]

Logeswari's response:

	Thirupathi	Jeyachithra	Indra	Ezhilarasi	Logeswari	Ilamathi	Sumathi	Rajeswari	Revathi	Vijaya	Gunavati	Devendri
Thirupathi							x					
Jeyachithra	x		x		x							
Indra	x	x										
Ezhilarasi	x											x
Logeswari	x					x						
Ilamathi	x		x		x						x	
Sumathi	x											
Rajeswari												
Revathi												
Vijaya												
Gunavati												
Devendri	x			x		x						

Ilamathi's response:

	Thirupathi	Jeyachithra	Indra	Ezhilarasi	Logeswari	Ilamathi	Sumathi	Rajeswari	Revathi	Vijaya	Gunavati	Devendri
Thirupathi							x					
Jeyachithra	x		x			x		x	x			
Indra	x					x		x				
Ezhilarasi	x					x						
Logeswari	x											
Ilamathi	x	x	x		x					x	x	
Sumathi	x					x						
Rajeswari	x					x						
Revathi	x					x						
Vijaya	x					x						
Gunavati	x				x	x						
Devendri			x									

Sumathi's response:

	Thirupathi	Jeyachithra	Indra	Ezhilarasi	Logeswari	Ilamathi	Sumathi	Rajeswari	Revathi	Vijaya	Gunavati	Devendri
Thirupathi							x					
Jeyachithra							x					
Indra							x					
Ezhilarasi							x					
Logeswari							x					
Ilamathi							x					
Sumathi	x	x	x	x	x	x						x
Rajeswari												
Revathi												
Vijaya												
Gunavati												
Devendri							x					

9. Bibliography

1. Ackerly, B. (1997) "What's in a Design? The Effects of NGO Programme Delivery Choices on Women's Empowerment in Bangladesh," in A. M. Goetz (ed.) *Getting the Institutions Right for Women in Development*, pp. 140–60. New York: Zed Books.
2. Alderman, H. (2001) "Do Local Officials Know Something We Don't? Decentralization of Targeted Transfers in Albania", *Journal of Public Economics*, 83: 375-404
3. Allen, F. & Babus, A. (2008) *Networks in Finance*, Wharton Financial Institutions Center Working Paper No. 08-07 , PA: Wharton Business School
4. Ananth, B., Barooah, B., Ruchismita, R., & Bhatnagar, A. (2004) *A Blueprint for the Delivery of Comprehensive Financial Services to the Poor in India*, IFMR Centre for Microfinance Working Paper Series
5. Anderson, C.L., Locker, L., & Nugent, R. (2002) "Microcredit, Social Capital, and Common Pool Resources", *World Development*, 30: 95-105
6. Bansal, H. (2003) "SHG-Bank Linkage Program in India", *Journal of Microfinance*, 5: 21-59
7. Bastiaensen, J., De Herdt, T. & D'Exelle, B (2005) "Poverty Reduction as a Local Institutional Process", *World Development*, 33: 979-93
8. Basu, P. & Srivastava, P. (2005) *Scaling-up Microfinance for India's Rural Poor*, World Bank (South Asia Region) Study, Working Paper 3646
9. Bebbington, A. (1997) *Social Capital and Rural Intensification: Local Organizations and Islands of Sustainability in the Rural Andes*, *The Geographical Journal*, 163: 189-97
10. Bennett, L. (1998) *Combining social and financial intermediation to reach the poor: the necessity and dangers*, in M. S. Kimenyi, R. Wieland and J. D. von Pischke

- (eds.) *Strategic Issues in Microfinance*, Aldershot: Ashgate.
11. Besley, T. & Coate, S. (1995) "Group lending, repayment incentives and social collateral", *Journal of Development Economics*, 46: 1-18
 12. Bierschenk, T., Chauveau, J.-P., & Olivier de Sardan, J.-P. (2000) *Courtiers en de'veloppement: les villages africains en que'te de projets*, Paris: Karthala.
 13. Boissevain, J. (1974) *Friends of friends: Networks, manipulators and coalitions*, Blackwell Oxford
 14. Borgatti, S.P. (2005) "Closeness and Network Flow", *Social Networks*, 27: 55-71
 15. Burt, R.S. (1992) *Structural Holes*, Cambridge MA: Harvard University Press
 16. Burt, R.S. (1997) The contingent value of social capital, *Administrative Science Quarterly*, 42: 339-65
 17. Burt, R.S. (2005) *Brokerage and Closure: An introduction to social capital*, Oxford University Press
 18. Burt, R.S., Jannotta, J. E. & Mahoney, J. T. (1998) Personality correlates of structural holes, *Social Networks*, 20: 63-87
 19. Burt, R.S., Hogarth, R. M. & Michaud, C. (2001) The Social Capital of French and American Managers, *Organization Science*, 11: 123-147
 20. CGAP (2002) <http://www.ids.ac.uk/cgap/poverty/>
 21. Chakrabarti, R. (2005) *The Indian Microfinance Experience - Accomplishments and Challenges*, Working Paper at Georgia Tech University
 22. Chambers, R. (1997) *Whose Reality Counts? Putting the Last First*, London: Intermediate Technology Publications
 23. Chloupkova, J. & Bjørnskov, C. (2002) "Counting in Social Capital when easing Agricultural Credit Restraints", *Journal of Microfinance*, 4: 17-36
 24. Coleman, J.S. (1988) Social capital in the creation of human capital, *American Journal of Sociology*, 94: 95-120
 25. Coles, N. (2001) It's not what you know - it's who you know that counts, *The British Journal of Criminology*, 41: 580-94
 26. Comet, C. (2006) Social capital, structural holes and profits: A contingency model based on uncertainty sources, presented at Colloquium « Strategic Entrepreneurship: The Role of Networking », Amsterdam, July 3-4 2006
 27. Conning, J. (1998) Outreach, sustainability and leverage in microfinance lending: A contract design approach, Presented at NEUDC Conference, Economic Growth Centre, Yale University
 28. Conning, J., & Kevane, M. (2002) "Community based targeting mechanisms for social safety nets: A critical review", *World Development*, 30: 375-94
 29. Cook, K.S., Emerson, R.M. Gillmore, M.R. & Yamagishi, T. (1983) The Distribution of Power in Exchange Networks: Theory and Experimental Results, *The American Journal of Sociology*, 89: 275-305
 30. Cowen, M. P., & Shenton, R.W. (1996) *Doctrines of development*, London: Routledge
 31. Cresswell, J.W. (2002) *Research Design*, London: Sage
 32. Daley-Harris, S. (2002) *State of the Microfinance Summit Campaign Report 2002*, International Labour Organisation
 33. Daley-Harris, S. (2005) *State of the Microcredit Summit Campaign Report 2005*, Washington: Microcredit Summit Campaign.
 34. Davis, K.E., Spielman, D.J. Negash, M. & Ayele, G. (2006) "Smallholder Innovation in Ethiopia: Concepts, Tools and Empirical Findings", Paper presented at the Innovation Africa Symposium, 21-23 Nov. 2006, Kampala, Uganda

35. De Weerd, J. (2005) Risk-Sharing and Endogenous Network Formation, in S. Dercon (Ed.) Insurance against poverty, UNU-WIDER Studies in Development Economics, Oxford: Oxford University Press
36. Deininger, K., & Olinto, P. (2000) Why liberalization has not improved agricultural productivity in Zambia, Working paper 2302, Washington DC: The World Bank
37. Dercon, S. (2005) Insurance against poverty, UNU-WIDER Studies in Development Economics, Oxford: Oxford University Press
38. Devereux, S. (1999) "'Making Less Last Longer': Informal Safety Nets in Malawi", IDS Discussion Paper 373., Brighton: Institute of Development Studies at the University of Sussex
39. Devereux, S. (2001) "Livelihood Insecurity and Social Protection: A Re-emerging Issue in Rural Development", Development Policy Review, 19: 507-19
40. D'Exelle, B. (2004) "Poverty Reduction and local arenas: Community Level Intermediation and Exclusion of Externally Provided Resources", IDPM - UA discussion paper
41. Diani, M. (2005) The Structural Bases of Movement Coalitions: Multiple Memberships and Networks, in Diani, M. & D. McAdam (Eds) Social Movements and Social Network Analysis, Oxford: Oxford University Press
42. Emirbayer, M. & Goodwin, J. (1994) "Network Analysis, Culture, and the Problem of Agency", The American Journal of Sociology, 99: 1411-54
43. Fernando, J. L. (1997) "Nongovernmental Organizations, Micro-Credit, and Empowerment of Women", Annals of the American Academy of Political and Social Science, 554: 150-77
44. Festinger, L., Schachter, S. & Back, K. (1950) "The Spatial Ecology of Group Formation", in L. Festinger, S. Schachter, & K. Back (eds.), Social Pressure in Informal Groups, Palo Alto, CA: Stanford University Press
45. Foley, M.W. & Edwards, B. (1999) Is it time to disinvest in social capital?, Journal of Public Policy, 19: 141-73
46. Fouillet, C. & Augsburg, B. (2007) "Spread of Self-Help Groups Banking Linkage Programme in India", Presented at the International Conference on Rural Microfinance Research: Moving Results
47. Galasso, E. & Ravallion, M. (2001) Decentralized Targeting of an Anti-Poverty Program, Development Research Group, World Bank
48. Garton, L., Haythornthwaite, C. & Wellman, B. (2001) Studying on-line social networks, in Jones, S. (eds) Doing Internet Research: Critical issues and methods for examining the net, London: Sage
49. Gelbach, J.B. & Pritchett, L.H. (1997) More for the Poor Is Less for the Poor: The Politics of Targeting, Policy Research Working Paper 1799, The World Bank Development Research Group
50. Ghatak, M. (2002) "Exploiting Social Networks to Alleviate Credit Market Failures: On the Endogenous Selection of Peer Groups in Microfinance Programs", Presented at the Conference on "Credit, Trust and Calculation" at the University of California (San Diego), November 15-16, 2002
51. Gine, X., Jakiela, P., Karlan, D. & Morduch, J. (2006) "Microfinance Games", Centre Discussion Paper No. 936, Economic Growth Centre, CT: Yale University
52. Goetz, A. M. & Gupta, R. S. (1996) "Who Takes Credit? Gender, Power, and Control over Loan Use in Rural Credit Programs in Bangladesh", World Development, 24: 45-63
53. Gomez, R. & Santor, E. (2001) "Membership Has Its Privileges: The Effect of Social Capital and Neighbourhood Characteristics on the Earnings of Microfinance

- Borrowers", *The Canadian Journal of Economics*, 34: 943-66
54. Granovetter, M.S. (1973) *The Strength of Weak Ties*, American Journal of Sociology, UChicago Press
55. Green, M. & Hulme, D. (2005) "From correlates and characteristics and causes: Thinking about poverty from a chronic poverty perspective", *World Development*, 33: 867-79
56. Greve, A. (1995) *Networks and entrepreneurship — an analysis of social relations, occupational background, and use of contacts during the establishment process*, Scandanavian Journal of Management, 11: 1-24
57. Grootaert, C. (1997) *Social capital: the missing link?*, in World Bank (ed.) *Expanding the Measure of Wealth: Indicators of Environmentally Sustainable Development*, Environmentally Sustainable Development Studies and Monographs Series No. 17, Washington DC: World Bank
58. Hallahan, K. (2000) "Enhancing motivation, ability and opportunity to process public relations messages", *Public Relations Review*, 26: 463-80
59. Hardy, D.C., Holden, P. & Prokopenko, V. (2002) *Microfinance Institutions and Public Policy*, IMF Working Paper 02/159
60. Hanneman & Riddle (2005) Online text-book published at <http://faculty.ucr.edu/~hanneman/nettext/>
61. Harper, M. (2002) *Promotion of Self Help Groups under the SHG Bank Linkage Programme in India (NABARD)*, Thompson Press Ltd
62. Hickson, R. (2001) "Financial services for the very poor – thinking outside the box", *Small Enterprise Development*, 12(2).
63. Hillman, H. (2008) "Localism and the Limits of Political Brokerage: Evidence from Revolutionary Vermont", *American Journal of Sociology*, 114: 287-331
64. Holzmann, R. and Jørgensen, S. (2000) *Social Risk Management: A New Conceptual Framework for Social Protection, and Beyond*, Social Protection Discussion Paper No.6. Washington, DC: World Bank.
65. Huysman, M. & Wulf, V. (2006) IT to support knowledge sharing in communities, towards a social capital analysis, *Journal of Information Technology*, 21: 40-51
66. Ickes, W., Holloway, R., Stinson, L. L. & Hoodenpyle, T. G. (2006) Self-monitoring in social interaction: The centrality of self-affect, *Journal of Personality*, 74: 659–84.
67. Ito, S. (2003) "Microfinance and Social Capital: Does Social Capital Help Create Good Practice?", *Development in Practice*, 13: 322-32
68. Jain, P. S. (1996) "Managing credit for the rural poor: lessons from the Grameen Bank", *World Development*, 24:79-89.
69. Jones, H., Williams, M. , Thorat Y. & Thorat, A. (2003) "Attitudes of Rural Branch Managers in Madhya Pradesh, India, toward their Role as providers of Financial Services to the Poor", *Journal of Microfinance*, 5: 139-167
70. Kadushin, C. (2002) *The motivational foundation of social networks*, Social Networks, 24: 77-91
71. Kanak, S. & Iugini, Y. (2007) "Microfinance Programs and Social Capital Formation: The Present Scenario in a Rural Village in Bangladesh", *The International Journal of Applied Economics and Finance*, 1: 97-104
72. Karlan, D. (2002): "Social Capital and Group Banking", Working Paper, Department of Economics, M.I.T
73. Karnani, A. (2007) "Microfinance misses its mark", *Standford Social Innovation Review*, Summer Issue
74. Khandker, S. (1998) *Fighting Poverty with Microcredit*, Dhaka, Bangladesh:

University Press Limited

75. Khwaja, A.I. (2000) *Can Projects Succeed in Bad Communities? Collective Action in the Himalayas*, Harvard University.
76. Kilduff, M. (1990) "The interpersonal structure of decision making: A social comparison approach to organizational choice", *Organizational Behaviour and Human Decision Processes*, 47: 270-88
77. Kilpatrick, S. & Falk, I. (2001) *Benefits for all: how learning in agriculture can build social capital in island communities*, CRLRA Discussion Paper, Discussion Paper D2/2001
78. Klitgaard, R. (1994) "Including Culture in Evaluation Research" in: R. Picciotto (ed.): *Proceedings of the World Bank Conference on Evaluation and Development*, The World Bank, Washington D.C.
79. Krishna, A. (2001) "Moving from the Stock of Social Capital to the Flow of Benefits: The Role of Agency", *World Development*, 29: 925-43
80. Kropp, E.W. & Suran, B.S. (2002) *Linking Banks and (Financial) Self Help Groups in India - An Assessment (Nabard Report)*, Thomson Press
81. Landsberger, H.A. (1958) *Hawthorne Revisited*, Ithaca
82. Larance, L.Y. (1998) *Building social capital from the center: A village level investigation of Bangladesh's Grameen Bank*, Working paper, Dhaka: Grameen Trust
83. Laurent, P.J. (2001) "L'espace public dans une ville émergente d'Afrique de l'ouest. Aux frontières de la théorie des conventions, l'anthropologie prospective?", *Recherches Sociologiques*, 32: 101-26
84. Leach, F. & Sitaram, S. (2002) "Microfinance and Women's Empowerment: A Lesson from India", *Development in Practice*, 12: 575-88
85. Lewin, K. (1948) *Resolving Social Conflicts: Selected Papers on Group Dynamics*, New York: Harper & Row
86. Long, N. (2001) *Development sociology: Actor perspectives*, London: Routledge.
87. Lowndes, V. & Wilson, D. (2001) *Social Capital and Local Governance: Exploring the Institutional Design Variable*, *Political Studies*, 49: 629-47
88. Lusseau, D. & Newman, M.E.J. (2004) *Identifying the role that animals play in social networks*, *Ecology Letters*
89. Lyon, F. (2000) "Trusts, Networks and Norms: The Creation of Social Capital in Agricultural Economies in Ghana", *World Development*, 28: 663-81
90. Maslow, A.H. (1943) "A Theory of Human Motivation", *Psychological Review*, 50: 370-96
91. Matin, I. & Hulme, D. (2003) "Programs for the Poorest: Learning from the IGVGD Program in Bangladesh", *World Development*, 31: 647-65
92. Mayoux, L. (2001) "Tackling the Down Side: Social Capital, Women's Empowerment and Microfinance in Cameroon", *Development and Change*, 32: 435-64.
93. Mehra, A., Kilduff, M. & Brass, D.J. (2001) *The social networks of high and low self-monitors: Implications for workplace performance*, *Administrative Science Quarterly*, 46: 121-46
94. Merton, R.K. (1968) "The Matthew Effect in Science", *Science*, 159: 56-63.
95. Molyneux, M. (2002) "Gender and the Silences of Social Capital: Lessons from Latin America", *Development and Change*, 33: 167-88
96. Morduch, J. & Rutherford, S. (2003) *Microfinance: Analytical Issues in India*, World Bank (South Asia Region) Study
97. Morduch, J. (1999) "The Microfinance Promise", *Journal of Economic Literature*, 4:

1569-1614

98. Mosse, D. (2001) People's knowledge, participation and patronage: Operations and representations in rural development, In B. Cooke & U. Kothari (Eds.), *Participation: The new tyranny?*, London: Zed.
99. Nair, A. (2005) Sustainability of Microfinance Self Help Groups in India: Would federating help?, World Bank (South Asia Region) Study, Working Paper 3516
100. Navajas, S., Schreiner, M., Meyer, R.L., Gonzalez-Vega, C. & Rodríguez Meza, J. (2000) "Microcredit and the Poorest of the Poor: Theory and Evidence from Bolivia", *World Development*, 28: 333-46
101. Norton, A., Conway, T. and Foster, M. (2000) Social Protection Concepts and Approaches - Implications for Policy and Practice in International Development, An Issues Paper for DFID, London: Overseas Development Institute
102. Oh, H. & Kilduff, M. (2008) The Ripple Effect of Personality on Social Structure: Self-monitoring Origins of Network Brokerage, *Journal of Applied Psychology*, 93: 1155-64
103. Oh, H., Labianca, G. & Chung, M-H. (2006) A multilevel map of group social capital, *Academy of Management Review*, 31: 569-82
104. Olomola, A.S. (2002) Social capital, microfinance group performance and poverty implications in Nigeria, Nigerian Institute of Social and Economic Research (NISER), Ibadan.
105. Ostrom, E. (1990) *Governing the commons: The evolution of institutions for collective action*, Cambridge: Cambridge University Press
106. Ostrom, E. (1994) Constituting social capital and collective action, *Journal of Theoretical Politics*, 6: 527-62
107. Parikh, T. (2006) Rural Microfinance Service Delivery: Gaps, Inefficiencies and Emerging Solutions, Working Paper at the University of Washington
108. Platteau, J. Ph., & Abraham, A. (2002) "Participatory development in the presence of endogenous community imperfections", *Journal of Development Studies*, 39: 104-36
109. Platteau, J. Ph., & Gaspart, F. (2003) "The risk of resource misappropriation in community-driven development", *World Development*, 31: 1687-1703
110. Platteau, J.-P. (2004) "Monitoring elite capture in community-driven development", *Development and Change*, 35: 223-246
111. Podolny, J.M. & Baron, J. N. (1997) Resources and Relationships: Social Networks and Mobility in the Workplace, *American Sociological Review*, 62: 673-93
112. Portes, A. (1998) Social Capital: Its Origins and Applications in Modern Sociology, *Annual Review of Sociology*, 24: 1-24
113. Prahalad, C. K., & Hart, S. (2002) "The fortune at the bottom of the pyramid", *Strategy + Business*, 26: 54-67
114. Prahalad, C.K. (2006) *The Fortune at the Bottom of the Pyramid*, PA: Wharton School Publishing
115. Preker, A.S., Carrin, G., Dror, D., Jakab, M., Hsiao, W. & Arhin-Tenkorang, D. (2002) "Effectiveness of community health financing in meeting the cost of illness", *Bulletin of the World Health Organisation*, 80: 143-50
116. Pronyk, P.M., Kim, J.C., Hargreaves, J.R., Makhubele, M.B., Morrison, L.A., Watts, C. & Porter, J.D.H. (2005) "Microfinance and HIV prevention – emerging lessons from rural South Africa", *Small Enterprise Development*, 16: 26-38
117. Putnam, R. (1993) *Making democracy work: Civic traditions in modern*

- Italy, Princeton, NJ: Princeton University Press
118. Rahman, A. (1999) "Micro-Credit Initiatives for Equitable and Sustainable Development: Who Pays?" *World Development*, 27: 67–82.
 119. Rai, A.S. (2002) "Targeting the Poor Using Community Information", *Journal of Development Economics*, 69: 71-83
 120. Rankin, K.N. (2000) "Social Capital and the Foundations of Democratic Public Culture: Contributions from Critical Ethnography of Nepal." Paper prepared for the 6th Annual Conference of the University of Toronto–York University Joint Centre for Asia Pacific Studies, "Democracy and Identity Conflicts in Asia: The Politics of Cultural Difference in an Age of Globalization," Dec. 4–5.
 121. Rankin, K.N. (2002) "Social Capital, Microfinance, and the Politics of Development", *Feminist Economics*, 8: 1-24
 122. Reddy, C.S. & Manak, S. (2005) *Self-Help Groups: A Keystone of Microfinance in India - Women Empowerment and Social Security*, AMPAS Working Paper
 123. Remenyi, J. (1994) "Poverty Targeting", in B. Geddes, J. Hughes & J. Remenyi (Eds.) *Anthropology and Third World Development*, Geelong, Victoria: Deakin University Press
 124. Reynold, W.P.O. (2006) "National and Regional Networks - The Experience of Latin America and the Carribean", REDCAMIF, Guatemala
 125. Rhyne, E. (1998) "The yin and yang of microfinance: Reaching the poor and sustainability", *Microbanking Bulletin*, 2: 6-8
 126. Richardson, L. (2000) "Evaluating Ethnography", *Qualitative Inquiry*, 6: 253-55
 127. Robinson, M. S. (2002) *The Microfinance Revolution: Lessons from Indonesia*, World Bank Publications
 128. Rogaly, B., Castillo, A. & Serrano, M.R. (2004) "Building Assets to Reduce Vulnerability: Microfinance Provision by a Rural Working People's Union in Mexico", *Development in Practice*, 14: 381-95
 129. Ross, A. & Savanti, P. (2005) *Profiling of Micro Enterprises in Tamil Nadu and Uttar Pradesh, India*, IFMR Centre for Microfinance Working Paper Series
 130. Ruthven, O. (2002) "Money mosaics: Financial choice and strategy in a West Delhi squatter settlement", *Journal of International Development*, 14: 249-71
 131. Salanick, G.R. (1995) "Wanted: A good network theory of organization", *Administrative Science Quarterly*, 40: 345-9
 132. Scott, J. (2000) *Social Network Analysis: A Handbook*, Sage
 133. Sen, A. (1995) "The Political Economy of Targeting", in D. Van de Walle and K. Nead (eds.) *Public Spending and The Poor: Theory and Evidence*, World Bank, Washington D.C.
 134. Serageldin, I. and Grootaert, C. (2000) *Defining social capital: an integrating view*, in P. Dasgupta and I. Serageldin (eds.) *Social Capital: A Multifaceted Perspective*, Washington DC: World Bank.
 135. Silvey, R. & Elmhirst, R. (2003) "Engendering Social Capital: Women Workers and Rural–Urban Networks in Indonesia's Crisis", *World Development*, 31: 865-79
 136. Simmel, G. (1950) *The Sociology of Georg Simmel*, Trans by K.H. Wolff, Glencoe, IL: Free Press
 137. Skoufias, E., Davis, D. & de la Vega, S. (2001) "Targeting the Poor in Mexico: An Evaluation of the Selection of Households into PROGRESA", *World Development*, 29: 1769-84

138. Snyder, M., Gangestad, S. & Simpson, J.A. (1983) "Choosing friends as activity partners: The role of self-monitoring", *Journal of Personality and Social Psychology*, 51: 181-90
139. Sriram, M.S. & Upadhyayula, R.S. (2002) "The Transformation of the Microfinance Sector in India: Experiences, Options and Future, Paper presented at the SIDBI workshop on "Key Dimensions in Transformation: From NGOs to Formal Institutions," Indian School of Business, Hyderabad, December 12-14, 2002.
140. Sriram, M.S. (2004) Microfinance and the State: Exploring areas and structures of collaboration, Sir Ratan Trust Fund for Research Collaborations in Microfinance Working Paper Series
141. Stiglitz, J. & Weiss, A. (1981) "Credit rationing in markets with imperfect information, *American Economic Review*, 71: 393-410
142. Täube, V.G. (2004) Measuring the Social Capital of Brokerage Roles, *Connections*, 26: 29-52
143. Thorat, Y. S. P. (1999) "Status and prospects of microfinance in India", Paper presented at the Third Annual Seminar on New Development Finance, Goethe University, Frankfurt
144. Thorp, R., Stewart, F. & Heyer, A. (2005) "When and how far is group formation a route out of chronic poverty?", *World Development*, 33: 907-20
145. Thurmaier, K. & Wood, C. (2002) Interlocal Agreements as Overlapping Social Networks: Picket-fence regionalism in Metropolitan Kansas City, *Public Administration Review*, 62: 585-96
146. Titeca, K. & Vervisch, T. (2008) "The Dynamics of Social Capital and Community Associations in Uganda: Linking Capital and its consequences", *World Development*, 36: 2205-22
147. Tiwari, P. & Fahad, S.M. (2004) Microfinance Institutions in India, Housing Development Finance Corporation Concept Paper
148. van Bastelaer, T. (2000) "Imperfect Information, Social Capital and the Poor's Access to Credit", Working Paper No. 234, Centre for Institutional Reform and the Informal Sector, MD: University of Maryland
149. Van de Walle, D. (1998) "Targeting Revisited", *The World Bank Research Observer*, 13: 231-48
150. Walker, G., Kogut, B. & Shan, W. (1997) Social Capital, Structural Holes and the Formation of an Industry Network, *Organization Science*, 8: 109-25
151. Werner, D. (1982) Leadership Inheritance and Acculturation among the Mekranoti of Central Brazil, *Human Organization*, 41: 342-45
152. Wood, G. (2003) "Staying secure, staying poor: The 'Faustian Bargain'", *World Development*, 31: 455-71
153. Woolcock, M. & Narayan, D. (2000) Social Capital: Implications for Development Theory, Research, and Policy, *The World Bank Research Observer*, 15: 225-49
154. Woolcock, M.J.V. (1999) "Learning from Failures in Microfinance: What unsuccessful cases tell us about how group-based programs work", *American Journal of Economics and Sociology*, 58: 17-42
155. Yunus, M. (1999) *Banker to the Poor: Micro-lending and the battle against world poverty*, New York: Public Affairs