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Strength of Weak Ties in Microfinance

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Introduction

This paper summarises the PhD research done to date under the auspices of the Leverhulme Trust grant to the University of Greenwich.

Social Network Analysis

Social networks are defined and measured as connections among people, organisations, political entities (states and nations) and/or other units. Social network analysis is a theoretical perspective and a set of techniques used to understand these relationships (Valente 2010, pg. 3). Christakis and Fowler (2010, pg. 32) say that the science of social networks provides a distinct way of seeing the world because it is about individuals and groups and how the former becomes latter.

This research is looking at how improving the social networks of microfinance clients can improve their businesses and reduce their level of poverty. This research is focused on the social intermediation role that microfinance institutions can play rather than their usual financial intermediation role. The two social network theorists that the research focuses on are Granovetter and Burt.

Granovetter's main focus on the role of social networks is on the role of weak ties. In a seminal paper, Granovetter (1973) identified the strength of weak ties in a network. The key strength of weak ties is that weak bridging ties are transmission routes for non-redundant information. The important point is that only weak ties that help to bridge or connect and that carry information, add strength to a network.

The personal connections that facilitate access to jobs, market tips or loans were defined by Bordieu (1972) as social capital. This research will use trust and Bourdieu's concept as the definition of social capital as that comes closest to what microfinance clients need for their businesses.

Network structure can also impact the creation of social capital. Burt (2000b) says that there are two network structures that have been argued to create social capital. The closure argument is that social capital is created by a network of strongly interconnected elements. The structural hole argument is that social capital is created by a network in which people can broker connections between otherwise disconnected segments. Burt draws from a comprehensive review elsewhere (Burt, 2000a) to support two points: there is replicated empirical evidence on the social capital of structural holes and the contradiction between network closure and structural holes network can be resolved in a more general network model of social capital. Brokerage across structural holes is the source of value added, but closure can be critical to realising the value buried in bridging structural holes. Burt also argues that network closure creates advantage by lowering the risk of cooperation. Network closure also facilitates sanctions that make it less for people in the network to trust one another. Brokerage across structural holes creates advantage by increasing the value of cooperation. Brokerage across structural holes is achieved by building weak ties.

Networks and the Poor

So, how do the dynamics of the network affect the poor? Barabási (2003) argues that scale-free networks, a network where most people will have only a few connections but there will be a few people that will have hundreds or even thousands of connections, occurred because people want to connect to networks at its most central locations. This would result in those in the most central locations in the network retaining their central positions. Barabási called this the rich getting richer dynamic. This describes the situation that many of the poor find themselves in as the rich maintain themselves at the centre of the most important networks in the nation and the poor find themselves on the periphery. Christakis and Fowler (2010, pgs 31 – 32) argue that the rich get richer dynamic of social networks can reinforce two different kinds of inequality. First is situational inequality where some are better off in socioeconomic terms. Second is positional inequality where some are better off where they are located in the networks. Christakis and Fowler (2010, pg. 167) also argue that the rich get richer dynamic means that the positive feedback loop between social connections and success could create a social magnifier that concentrates even more power and wealth in the hands of those who already had it.

Interestingly, as mentioned previously, Granovetter (1983) points to research done by others which shows that poor people rely more on strong ties than others do. Ericksen and Yancey (1980, pg. 24) found that less-well-educated respondents were those most likely to use strong ties for jobs. He also suggests that the heavy concentration of social energy in strong ties has the impact of fragmenting communities of the poor into encapsulated networks with poor connections between these units; individuals so encapsulated may then lose some of the advantages associated with the outreach of weak ties. This may be one more reason why poverty is self-perpetuating.

For Christakis and Fowler (2010, pgs. 301 – 302), the ability of network inequality to create and reinforce inequality of opportunity comes from the tendency of people with many connections to be connected to other people with many connections reinforcing the point Barabási made. This distinguishes social networks from neural, metabolic, mechanical and other nonhuman networks. The reverse holds true as well: those who are poorly connected usually have friends and family who are themselves disconnected from the larger network. They argue that to address poverty, the personal connections of the poor must be addressed. To reduce poverty, the focus should not merely on monetary transfers or even technical training; the poor should be helped to form new relationships with other members of society. When the poor on the periphery of the network are reconnected, the whole fabric of society benefits and not just any disadvantaged individuals at the fringe.

Networks and Microfinance

How do networks affect microfinance's efforts to reduce poverty? Christakis and Fowler (2010, pgs. 168 -170) point to the fact that microfinance uses the social networks of the poor that consist of their friends and family as a form of social collateral. They point to Grameen Bank as an example of this approach. Yunus (2003, pg. 62) attributes the success of Grameen Bank to features of the social network: "Subtle and at times not so subtle peer pressure keeps each group member in line." Christakis and Fowler also state that ROSCAs are another manifestation that capitalises on the power of social networks.

However, network theory points to a much stronger role that microfinance can play in reconnecting the poor to the larger networks around them. The concepts of weak ties and brokerage discussed below show how being better connected to the larger network can help the poor using microfinance to create and sustain their microenterprises to improve their businesses and reduce their level of poverty. However, this requires that microfinance institutions focus more on social intermediation.

Social Intermediation in Microfinance

There is considerable literature on social intermediation. However, much of it focuses on the role social intermediation plays in preparing the poor for financial intermediation. See, for example, Edgcomb and Barton (1998). However, others do recognise that social intermediation can be used for more than just preparation for financial intermediation. Zohir and Matin (2002) argue that the wider impact outcomes of social intermediation by a microfinance institution (MFI) may thus involve much more than preparing the poor for formal financial intermediation.

Research Questions

1. If Granovetter and Burt are correct about the strength of weak ties and the benefits of brokerage, how do the poor establish weak bridging ties in an intensely hierarchical society with a high power distance index?

2. How does a MFI help its clients bridge structural holes?

3. How can MFIs socially intermediate to help clients establish weak bridging ties?

4. Do MFI clients, who have network closure and who take advantage of brokerage opportunities, have stronger businesses and more poverty reduction than those who do not?

First Research Field Trip

The Bullock Cart Workers Development Association (BWDA) based in Villupuram, Tamil Nadu in India agreed in 2009 to participate in the research project. In July 2009, during an exploratory research field trip, 178 members of 10 SHGs were interviewed individually. This method was chosen because the answers to the network questions would be more honest than using the more traditional focus group approach. There were 9 female SHGs and 1 male one. The SHGs were both rural and urban.

Business Type	Number
Dairy Animals	58
Tailoring	36
Farm	35
Food Products	23
Sari	22

Table 1

The purpose was to identify a business where network theory could be used to improve the businesses of BWDA's clients. While the most popular, a lot of research is being done on agricultural networks and value chains of dairy and agricultural farming. These businesses were not chosen because it would be harder to make an original contribution to knowledge here. Tailoring and food product sales would have very short value chains and not very interesting from a network point of view. Saris, on the other hand, could potentially have very interesting value chains and networks and additionally not much research has been done on the sari industry in India.

Second Research Field Trip

The second research field occurred from October 2010 to December 2010. The purpose of the second field trip was to map the networks of the sari sellers seeing how many strong and weak ties they had to suppliers, financial sources, customers and market information sources. The poverty level of each sari seller was measured using the Grameen Foundation's Progress out of Poverty Index. The profits and revenues for each sari seller were also collected. The jati or caste of each sari seller was also recorded.

In all, 111 BWDA SHG members who sell saris in the Cuddalore and Villupuram Districts in the state of Tamil Nadu and the Union Territory of Pondicherry were interviewed and had their networks mapped. The resulting networks are what are called ego networks in social network analysis. Ego networks are from the point of view of the respondent and contain links to the respondent and the connections between those linked to the respondent that the respondent is aware of. It is not the global network around the respondent.

To quantify the strength of the relationship, those relationships based on a large amount of trust will be considered strong while those that are not will be considered weak. Therefore, non-collateral loans, credit provision by suppliers and market information from family members and close and long-term friends are all indicators of strong ties.

Key Findings on the Second Research Field Trip

A key finding is that the sari sellers relied mostly on strong ties. These are ties to people they have strong emotional bonds with. For an example of a sari seller with mainly strong ties, see Figure 1 below.

In Figure 1, all of the financial sources for the sari seller (coloured black) are providing non-collateral loans which indicate a high degree of trust making these strong ties. Both sari suppliers (coloured blue) are providing credit which again indicates a high degree of trust making these strong ties. While this sari seller does not get credit from the supplier in Surat, Gujarat in India, she depends on the connection with her husband and his good friend to get the saris from Gujarat. Both of these links are based on strong emotional bonds which are indicators of strong ties. This sari seller gets her market information from family, friends and customers which she has strong emotional ties with. The strong tie with customers is based on serving her base of 50 customers for at least 5 years. She depends on the strong ties with BWDA, her self help group and her family and the link through her husband to his friend in Gujarat to help get more customers.

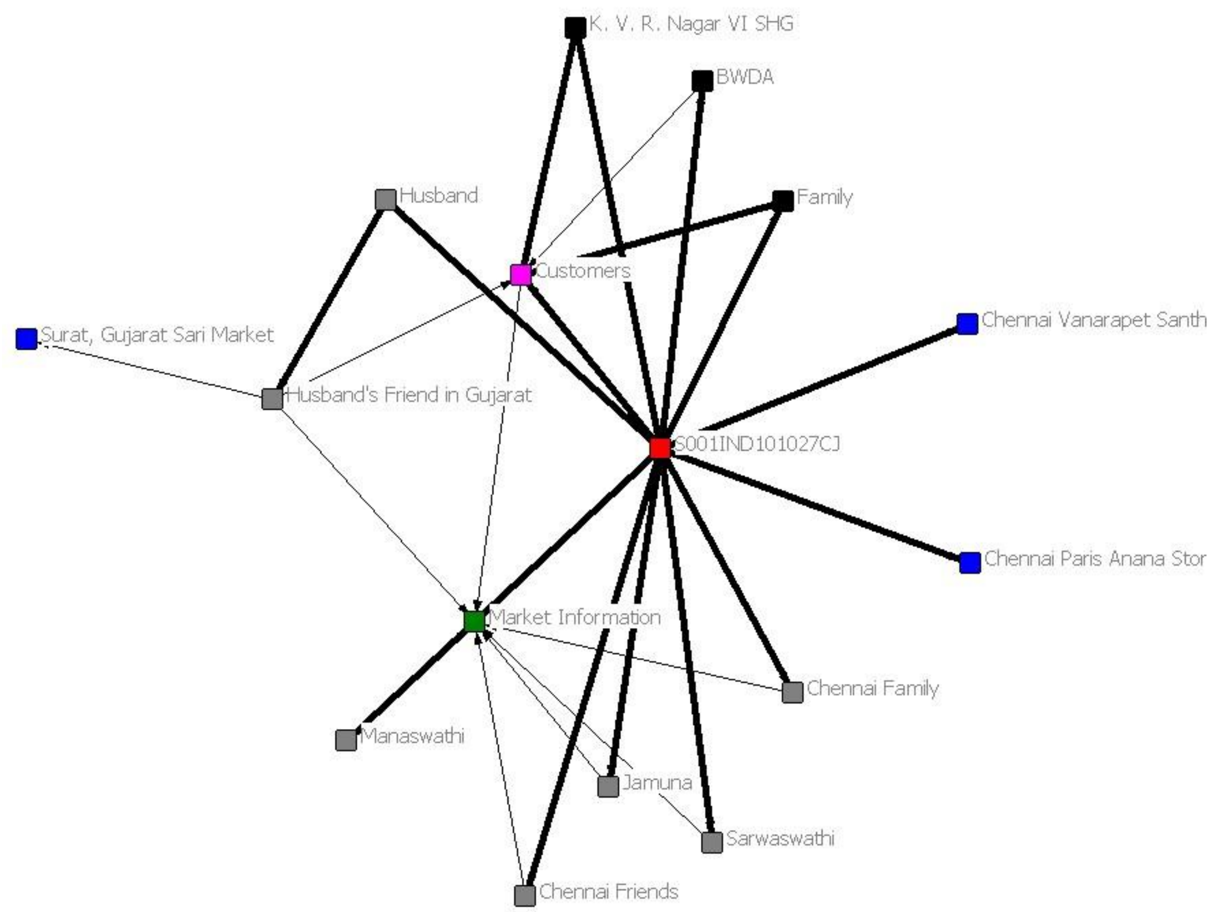

Figure 1

Red=Sari Seller Black=Financial Sources Blue=Suppliers Grey=Other Contacts

Bold Lines=Strong Ties, Non-Bold Lines=Weak Ties

In his seminal paper, *The Strength of Weak Ties,* Granovetter (1973) argues that weak ties that serve as bridges to connect to people outside the existing network would provide information to the sari sellers that would improve their businesses. In addition, according to Burt, in his book *Brokerage and Closure (*2005*),* these weak ties would provide brokerage opportunities that would also improve their businesses. However, India is an intensely hierarchical society. So, how do the poor establish weak ties in an intensely hierarchical society?

In a later paper *Strength of Weak Ties: A Network Theory Revisited*, Granovetter (1983) showed how the poor often rely on strong ties. If the sari sellers are depending on mostly strong ties, then Burt predicts that they are surrounded by structural holes. A structural hole is a gap between nodes in a network that represent lost opportunity. This will tend to lead to exploitation as the poor have few ties and options around these. This research has found what appears to be a number of structural holes within the sari seller's networks.

Suggested Approaches

So, how does a MFI do social intermediation to help their clients develop the weak, bridging ties they need to improve their businesses and reduce their poverty? This research is investigating two approaches in order to answer this question with this case study.

First, the MFI could act as a broker between the sari sellers and the sari industry. One suggestion consistently made by the sari sellers was for the MFI to buy the saris for them in bulk. The second approach is for the MFI to help its sari seller clients establish weak ties with each other inside the MFI's network. The basic idea here is that the MFI establish a mechanism where sari sellers can find each other in order to share information and knowledge. Sari sellers can identify information and knowledge they are willing to share and information and knowledge they want to learn. Ideally it would work like a classified section that will allow the sari sellers to contact each other and negotiate with each other.

Intervention

The intervention will be testing the second approach to see if weak bridging ties among the sari sellers can be established and as a result the sari sellers see an improvement in their business. All the sari seller clients of BWDA in the Cuddalore and Villipuram Districts in Tamil Nadu and the Union Territory of Pondicherry will be asked if they are willing to share information and/or skills with other BWDA sari sellers. They will be allowed to put constraints on who they are willing to share information with. For example, they may not want to share with sari sellers that are nearby because they may be seen as competitors. However, they may be more willing to share with those further away.

A list of all those sari sellers willing to share along with their contact details will be assembled. This list will be given to the sari sellers in the Villipuram District only. The sari sellers in the other districts will effectively serve as a control group. The assumption is that the BWDA network serves as a safe environment to forge weak bridging ties. Because what is being offered are information and skills, contacts should form weak bridging ties. It is also assumed that the typical social hierarchy issues will not come up. Of the 111 sari sellers, only two were Brahmin. The overwhelming majority of the sari sellers were in the backward castes, other backward castes or most backward castes.

Further network data will be collected by giving the sari sellers a diagram with several concentric circles. They will be at the centre of the diagram and will be asked to place their network contacts on the circles to indicate how close they are to the sari seller and indicate how their network contacts are connected with each other. If they indicate an organisation as a contact, they will be asked to identify the people they regularly deal with on the diagram.

The intervention will be set up during May 2011 and in November 2011 the data indicating any change in the networks, the poverty level and the performance of the business will be collected. This will compared to the data collected during the second research field trip and in May 2011.

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