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Loan Methodology, Gender, Culture and Capital Formation by Mexican Microfinance Institutions

Abstract

A debate is currently taking place in the microfinance literature between proponents of group loans and those of individual loans. The author argues that capital formation in microfinance programs, especially in the case of female clients, is accelerated by group forces. This paper offers to make a contribution by building up a theoretical model to explain why traditional concepts about gender may need to be revised in the context of microfinance. It also reveals the influence the external environment exerts on loan methodology, a force that is not sufficiently covered by the literature dedicated to microfinance.
1 Introduction

Although evidence from literature in social psychology (Brehm, Kassin, & Fein, 1999; Myers, 1996; Worochel, Cooper, Goethals, & Olson, 2002), sociology (Farley, 2003; Schaefer, 2004; Vander Zanden, 1990), the economics of gender (Jacobsen, 1998; Sánchez & Pagán, 2001), and business administration (Brush, Carter, Gatewood, Greene, & Hart, 2006; Ely & Padavic, 2007) generally states that men are more successful than women as business owners or employees, the development literature (Armendáriz de Aghion & Morduch, 2004, 2005; Hashemi, Schuler, & Riley, 1996; Khandker, 1998; Morduch, 1999; Nafziger, 1997) indicates that women may be more successful than men in microfinance programs. The success of credit programs in reaching a large number of women and improving their incomes has been emphasized by numerous organizations, including the United Nations, the World Bank, and the Nobel Committee (Buvinic & Lycette, 1988; Fisher, 1994; Hermes & Lensink, 2007; Young, 1997). A microfinance institution (MFI) can be defined as “a bank, a cooperative, a credit union, an NGO or some other form of non-bank financial intermediary, (which) seek(s) to provide clients from poor households with a range of money management and banking services” (Remenyi, 1999: 8). MFIs often provide small loans of around US$50 to $500 to poor clients, especially women, usually in rural and informal sectors of developing countries, so that they can start or expand small businesses.

Related to the phenomenon of gender and success in microfinance, a debate is currently taking place in microfinance literature between proponents of group loans (Khandker, 1998; McKernan, 2002; Navajas, Schreiner, Meyer, Gonzalez-Vega, & Rodriguez-Meza, 2000; Remenyi, 1991) and proponents of individual loans (Armendáriz de Aghion & Morduch, 2000, 2004, 2005; Morduch 1999). The Grameen Bank, a pioneer MFI and leader in innovations, is reported to be moving away from the concept of group loans (Armendáriz
de Aghion & Morduch, 2005; Dowla & Barua, 2006). One argument in favor of group loans states that women benefit more from group loans than individual loans (Velasco & Marconi, 2004). Female success in microfinance programs may be related to group forces, such as peer group pressure, group support and participation in the decision making of the program (Bhatt & Tang, 2001; Dowla & Barua, 2006; Khandker, 1998; McKernan, 2002; Prahalad, 2005b; Remenyi, 1991). Furthermore, environmental and cultural forces also seem to influence the success of female clients in creating capital.

An explanation of gender, group loans and capital creation in this context may be generalizable to other businesses not served by MFIs that operate at the bottom of the pyramid in emerging economies (Hammond & Prahalad, 2004; Hart, 2005; London & Hart, 2004; Peredo & Chrisman, 2006; Prahalad, 2005a; Sen, 2000). The informal sector is crucial to the survival of the poor in urban and rural areas of the developing world (Safilios-Rothschild, 1984). Research in Latin America has revealed that while men tend to move into the formal sector, the majority of women tend to be concentrated in the informal sector and thus remain marginalized with low incomes and intermittent work (Charlton, 1984; Haig-Muir, 1996; Young, 1997). Despite its impact on developing economies, the informal sector has been regarded as insignificant and has not only been largely ignored by government policymakers in the past, but also by researchers in the field of business administration (Young, 1997). However, arguably, it is in the informal sector that development projects have had their greatest successes, particularly small-scale credit and microenterprise projects that provide loans or technical services to the poor (Buvinic & Yudelman, 1989; Lewis, 1988; Walker, 1986).

This paper is organized around the following research questions: Do women create more capital with group loans than men? Do men create more capital with individual loans than women? Do group loans in rural settings create more capital than group loans in urban
settings? Do individual loans in urban settings create more capital than individual loans in rural settings?

This paper offers to make a contribution to administrative science by building up a theoretical model to explain why traditional concepts about gender may need a more complete explanation in the context of microfinance and the creation of capital at the bottom of the pyramid. This research questions established theories on gender; explores and compares the benefits that female and male clients derive from different loan methodologies; and seeks to reveal environmental and cultural influences that are not sufficiently emphasized by the literature.

The first of this paper’s five parts defines economic, social and human capital and presents my conceptual model that explains capital formation by microfinance institutions. The second part presents traditional theories that deal with gender and business success, summarizes the success of female clients in microfinance, and discusses some of the advantages that poor women may have in capital formation and in reducing family poverty. The third part looks at loan methodology, gender, and capital formation, and the fourth part deals with the influence environments exert on loan methodologies. This paper closes by discussing my exploratory study; proposing a method for examining the research propositions presented in the previous two parts; and emphasizing the theoretical and practical contributions that further research on the topics of gender, loan methodology, environment, and group size can make in regards to enhancing the performance of microfinance clients and institutions.

2 Defining Capital Formation for Microfinance Clients
Many economic text books refer to capital as money capital or capital goods (physical capital), but here I will use a broader definition: “Capital may be so broadly defined as to include all possible material, nonmaterial and human inputs into a productive system...” (Encyclopaedia Britannica, 2007). Capital consists of economic capital, human capital and social capital. Economic capital includes physical capital (capital goods or real capital), such as land and equipment, non-physical capital (money or financial capital), and the price of labor (Encyclopaedia Britannica, 2007). Human capital will be defined as “the stock of technical knowledge and skill embodied in a nation’s work force” (Samuelson & Nordhaus, 2001: 766). Although human capital is thought to result from “investments in formal education and on-the-job training” (Samuelson & Nordhaus, 2001: 766), in this paper I will argue that the formation of client groups may promote the formation of human capital. Social capital refers to the social bonds and social norms shared within and between social networks that promote productive activities (Pretty & Ward, 2001). Adler and Kwon (2002: 23) define social capital as “the goodwill available to individuals or groups. Its source lies in the structure and content of the actor’s social relations. Its effects flow from the information, influence and solidarity it makes available to the actor.”

I explain capital formation by microfinance institutions with the following conceptual model in Figure 1. Loan methodology can be divided up into group loans and individual loans. Whereas participation with other clients, and the peer-group and community pressure experienced by clients will be minimal or absent with individual loans, participation, peer-group pressure and community pressure will increase with group loans and should lead to greater capital creation. Community pressure will increase with group loans because there will be people in the community who may pressure potential defaulters if defaulting on a loan contributes to the economic burden of members of the defaulter’s group who are family, business partners or friends. Gender is expected to moderate the relationship between loan methodology and group participation, because women are expected to
participate more in groups than men, and between loan methodology and peer-group pressure, because peer-group pressure is expected to be greater amongst women. Women dedicate a higher percentage of their income towards fulfilling their families’ basic needs (Blumberg, 1991) and are expected to be more motivated to spend their income on investments that favor satisfying these needs. Therefore, women will be more motivated to continue in MFI programs and will register higher repayment rates than men. When participation is higher amongst clients, there will be greater mutual insurance, solidarity, peer mentoring, and joint-decision making in the group, which will contribute to more capital creation in the form of human capital, social capital and, consequently, economic capital.

Peer mentoring (learning by association) refers to knowledge or skills acquired from interactions with other clients. Social capital in the general community is also expected to increase with increased participation and solidarity amongst clients. Environment is expected to moderate the relationship between loan methodology and the peer-group pressure experienced by the client, and between loan methodology and the community pressure experienced by the client, because group and community pressure are expected to be higher in rural areas. Higher peer-group pressure should also increase community pressure.

When group members are more anxious about potential defaulters and pressure them more, other members of the wider community, such as relatives and business associates, will also be more concerned. This should in turn lead to more pressure on group members from the community. Increased peer-group pressure and community pressure on clients should increase client repayment rates, which leads to increased survival in the MFI program, increased access to loans, and increased capital creation, in this case economic capital.
3 Gender and Capital Formation

3.1 Traditional Theories of Gender

The social psychology, sociology, economics of gender, and business administration literatures (Brehm et al., 1999; Brush et al., 2006; Loscocco, Robinson, Hall, & Allen, 1991; Myers, 1996; Sánchez & Pagán, 2001; Vander Zanden, 1990) generally agree that men are more successful than women as business owners or business employees, although there are some exceptions (Kalleberg & Leicht, 1991). Bird, Sapp and Lee (2001) list four theories that explain this belief. Firstly, the theory of human capital argues that female business owners are more inclined than male to invest their time into managing both family relationships and businesses, whereas men invest more time primarily into their businesses
(Jacobsen, 1998; Kalleberg & Leicht, 1991; Loscocco et al., 1991). Therefore, women have less human capital that is conducive to small business success. Secondly, social network theory claims that the social networks of women emphasize interpersonal relationships over instrumental relationships and, therefore, women are exposed to fewer business-relevant sources (Brush, 1992; Moore, 1990; Worche et al., 2002). Thirdly, the organizational ecology view states that female-owned businesses fall disproportionately into smaller, less-well established businesses in more crowded industries and, consequently, are less successful than male-owned businesses (Kalleberg & Leicht, 1991; Loscocco et al., 1991; Tigges & Green, 1994; Williamson, 1995). Women employees in the developing world have tended to be concentrated in unskilled jobs in textile, electronic and food-processing plants or to be concentrated in stereotyped employment roles in the service sector (Haig-Muir, 1996; Lewis, 1988; Newland, 1979). Finally, feminist views encompass two explanations for the sex gap in small business success. The first category of explanations states that gender socialisation influences women’s life experiences so that women business owners have different management styles and goals than men (Farley, 2003; Fischer, Reuber & Dyke, 1993; Schaefer, 2004; Weiten & Lloyd, 1997). Feminist theorists also point to systematic biases that obstruct female-owned businesses from being as successful as male-owned businesses (Ely & Padavic, 2007; Fischer, Reuber & Dyke, 1993; Hatch, 1997; Karsten, 1994). According to feminist views, the sex gap will disappear when socialisation practices are changed or uprooted.

3.2 Gender and Microfinance

In contrast to the above theories, although there are exceptions, there are many examples from development studies literature that suggest that female micro-entrepreneurs supported by microfinance programs in developing countries may be more successful than male micro-entrepreneurs (Morduch, 1999; Nafziger, 1997). One of the first microfinance
programs, the Grameen Bank (GB) of Bangladesh, was serving more than a million clients through group loans by the 1990s and had repayment rates of more than 90 percent (Nafziger, 1997). In 1985, 34.9 percent of GB clients were men, but by 1994 this had declined to less than 6 percent (Islam, 2007). Male borrowers of the GB have struggled (Morduch, 1999). The GB has found that not only do female clients have a greater social impact than male clients, but that having a customer base dominated by women may reduce financial risk (Armendáriz de Aghion & Morduch, 2005). Women have had particularly low rates of loan default, which are said to be less than one-third that of men in Bangladesh (Khandker, 1998). Female microfinance clients are associated almost worldwide with higher repayment rates than men with Indonesia curiously said to be an exception (Khan, 1999; Panjaitan-Drioadisuryo & Cloud, 1999; Remenyi, 2000; Velasco & Marconi, 2004). Velasco and Marconi (2004: 525) suggest that women have higher repayment rates because they are “more risk-adverse, or have fewer possibilities of obtaining credit outside microfinance, or take more seriously the consequences for their children of their failing to repay, or a combination of the above.”

Khandker, Khalily and Khan (1995: 76) state that repayment rates “suggest that women’s groups are more viable than men’s groups.” Each year between 1985 and 1994 there were always more male irregular and struggling borrowers in the Grameen Bank than female (see Table 1). “Irregular borrowers” are clients who do not make weekly payments regularly, “struggling borrowers” are those who cannot pay due to circumstances that they have no control over, whereas “defaulters” cannot pay their loans within the specified time. Women also defaulted on their loans consistently less than men even though “the overall proportion of borrowers who default is very small” (Khandker et al., 1995: 76) (see Table 1). Armendáriz de Aghion and Morduch (2005) mention other studies in Asia and Latin America, such as southern Mexico and Guatemala, in which female clients are said to have superior repayment rates to male clients.
TABLE 1: Gender of Irregular Borrowers, Struggling Borrowers, and Defaulters in the Grameen Bank, Bangladesh, 1985-1994. Percentage of Total Male and Female Borrowers in the Same Year.

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<tbody>
<tr>
<td>Female Irregular Borrowers</td>
<td>1.27</td>
<td>2.02</td>
<td>1.70</td>
<td>1.87</td>
<td>2.73</td>
<td>2.80</td>
<td>3.88</td>
<td>2.75</td>
<td>2.09</td>
<td>3.71</td>
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<td>Male Irregular Borrowers</td>
<td>4.28</td>
<td>7.52</td>
<td>9.30</td>
<td>10.00</td>
<td>12.4</td>
<td>11.96</td>
<td>15.33</td>
<td>11.91</td>
<td>9.83</td>
<td>9.74</td>
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<tr>
<td>Female Struggling Borrowers</td>
<td>0.50</td>
<td>0.64</td>
<td>0.60</td>
<td>0.61</td>
<td>0.99</td>
<td>1.08</td>
<td>1.33</td>
<td>1.27</td>
<td>0.91</td>
<td>1.43</td>
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<tr>
<td>Male Struggling Borrowers</td>
<td>1.36</td>
<td>3.02</td>
<td>3.28</td>
<td>3.46</td>
<td>4.25</td>
<td>4.29</td>
<td>5.61</td>
<td>5.48</td>
<td>4.31</td>
<td>3.66</td>
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<td>Female 25-week Defaulters</td>
<td>1.28</td>
<td>0.66</td>
<td>3.33</td>
<td>1.76</td>
<td>1.50</td>
<td>1.18</td>
<td>1.23</td>
<td>0.33</td>
<td>0.19</td>
<td>0.72</td>
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<td>Male 25-week Defaulters</td>
<td>3.61</td>
<td>2.67</td>
<td>5.88</td>
<td>5.99</td>
<td>4.56</td>
<td>3.68</td>
<td>3.07</td>
<td>1.21</td>
<td>0.81</td>
<td>1.38</td>
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<td>Female 38-week Defaulters</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>1.51</td>
<td>1.56</td>
<td>0.51</td>
<td>0.25</td>
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<td>Male 38-week Defaulters</td>
<td>0.00</td>
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<td>0.00</td>
<td>0.00</td>
<td>5.50</td>
<td>3.80</td>
<td>1.64</td>
<td>0.91</td>
<td>1.76</td>
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Another study (Hashemi et al., 1996) using case study and survey data reports that GB and BRAC (Bangladesh Rural Advancement Committee) have contributed to the social
dimensions of women’s empowerment. Women have been empowered due to “a strong, central focus on credit” and the “skillful use of rules and rituals to make the loan program function” (Hashemi et al., 1996: 635). Khandker (1998) also claims that women have especially benefited from MFIs. Of the three MFIs (GB, BRAC, and the Bangladesh Rural Development Board (BRDB)) studied by this author, all of which specialize in group loans, when the clients were female the impact on household consumption was twice as large as that of men. This was accompanied by an increase in the net wealth and status of the women involved in the study as well as an improvement in the lives of their children. A more recent Khandker (2005) study carried out on these three MFIs also found that female borrowers have especially benefited from the poverty reduction efforts of microfinance programs. Islam (2007) presents the results of a field survey of 75 female borrowers in Bangladesh in which GB members are compared to non-members in project villages and to non-members in control villages. GB members have higher expenditure than the other two groups in education for children, family nutrition and health services. Other papers emphasize the success and social impact of MFIs targeting women with group loans in Indonesia (Panjaitan-Drioadisuryo & Cloud, 1999) and Bolivia (Velasco & Marconi, 2004). In one study, credit provided to males in Bangladesh had a negative effect on women’s empowerment and on fertility (Pitt, Khandker, & Cartwright, 2006). Kabeer (2001: 83) argues that “the entire family is much more likely to benefit personally and socially when loans are directed to women rather than men.”

3.3 Gender and Family Spending

The four traditional theories presented above would provide explanations for superior productivity and higher returns on loans to males, but there is also a need in business and development literature for an explanation of advantages that female microfinance clients possess related to the creation of capital. Development literature often states that
because women are more likely than men to put the interests of their family first, they are more likely to re-invest credit into their business if they think that the business will benefit their children and family in the long run (Haig-Muir, 1996). Women seem to invest more in household consumption and in human capital development, such as health care and the education of children (Khan, 1999; Panjaitan-Drioadisuryo, 1999; Pitt et al., 2006). Men, on the other hand, are more likely to spend credit on entertainment or luxury items, such as cigarettes and radios (Jacobsen, 1998). Muhammad Yunus, founder of the Grameen Bank, has observed, “when women borrow, the beneficiaries are the children and the household. In the case of a man, too often the beneficiaries are himself and his friends” (Nebel & Wright, 2000: 177-178).

Blumberg (1991: 101) points out that a change in the balance of economic power can affect family well being and points to a number of studies that state that women hold back less income for personal use and spend more on family welfare and children’s nutrition. In one study carried out in 20 villages in South India, although women earned 55 percent of male income, the proportion of male contributions (70 percent and 74 percent in two states) to female (90 percent and 98 percent) was always much lower (Blumberg, 1991: 102-104). In one village in which men and women had roughly equal incomes, women still dedicated a higher proportion to family needs. In the cases in which women devoted less than 100 percent to the family, income was spent on work-related transport and lunch costs, whereas men held back a portion for leisure and “status production” activities. This study also found that when women earn less, men actually contributed a lower proportion of their earnings to family needs. A Mexico City based study of 140 women, who were doing garment/textile piece work in their homes, found that men also held back more income (Blumberg 1991: 103). However, when, according to the culture, women have no structural obligations to contribute to family needs, their spending patterns may not be more altruistic, except in
times of crisis. Women also spend a greater proportion of their income on investments in extended kin exchange/sharing networks which provide an insurance/risk spreading function of reciprocity in times of need.

Numerous studies support the argument that women who retain control of income and expenditure invest proportionally more income on family education, nutrition, health care and children’s clothing, whereas men spend more on unnecessary consumer goods, luxury items and entertainment (Armendáriz de Aghion & Morduch, 2005; Buvinic & Lycette, 1988; Buvinic & Yudelman, 1989; Haig-Muir, 1996; Jacobson, 1993; Safilios-Rothschild, 1984). When basic food items and cash were directed to women in rural Mexico by the PROGRESA (Oportunidades) program, school enrolments, spending on food, and productive working days due to improved health increased, whereas poverty decreased by 10 percent (Armendáriz de Aghion & Morduch, 2005). Another study in Mexico revealed that women contributed 100 percent of their income to the family budget even though they earned far less, whilst their husbands contributed 75 percent of theirs (Jacobson, 1993: 64).

3.4 Advantages of Female Clients

Armendáriz de Aghion and Morduch (2005) provide an informative discussion on the advantages that women may have as borrowers in microfinance. Women are said to be more susceptible to the verbal hostility and pressure of group members and MFI staff. It is also easier for group and staff members to monitor and pressure women because women are generally less mobile than men. Due to this lack of mobility and their fear of social sanctions, women will tend to be more cautious in their investment strategies due to their higher risk aversion. Risk taking behavior may also be related to testosterone levels, with young men more susceptible to risk taking. Apart from mentioning that women are more likely than men to satisfy their children’s health and educational needs, Armendáriz de Aghion and Morduch (2005: 189) also add that women generally have less alternative
sources of credit (the theory of dynamic incentives) and, according to “the standard neo-classical assumptions about the production function”, female returns to capital should be greater considering that they have access to smaller amounts of capital than men. Women workers have often been preferred to men in the “offshore plants” of multinational corporations and in the electronics industry because they are not only cheaper to hire, but are said to be more obedient and disciplined, and have greater manual dexterity and patience than men (Charlton, 1984). Abbink, Irlenbusch and Renner (2006: 617) mention an experiment carried out in Zimbabwe using a public good game that found that women “tend to contribute more to the public good than men.”

4 Loan Methodology, Gender and Capital Formation

4.1 Individual Loans

Of 147 programs surveyed internationally, MFIs that employ individual loans serve less women (46 percent), than group lenders with solidarity groups of 3 to 9 borrowers (73 percent), and village banks with groups of more than 10 clients (89 percent) (Armendáriz de Aghion & Morduch, 2005). Individual loans tend to serve better off clients and charge lower interest rates and fees, due to lower costs relative to loan size, than MFIs that loan to groups (Armendáriz de Aghion & Morduch, 2005). Individual loans are said to be possibly better suited to areas that are relatively industrialized, with sparse or heterogeneous populations, and characterized by social divisions (Armendáriz de Aghion & Morduch, 2000, 2005). By the turn of the twenty first century, the Grameen Bank and BancoSol were said to be changing to individual loans for their wealthier and better established clients. Some clients may also prefer the greater independence that individual contracts offer. Overall, Ar-
mendáriz de Aghion and Morduch (2005) argue that there may be more efficient contracts than the group contract. However, there appear to be no studies which consider these supposedly more efficient contracts.

The examples of the superior repayment rates of female clients presented above come from programs that practice group loans. The traditional theories of gender mentioned above explain why male business owners will generally create more capital than female business owners. Thus, I propose

Proposition 1: Male clients will create more capital (economic, human and social) with individual loans than female clients with individual loans.

4.2 Group Loans

The Grameen Bank and other MFIs successfully deal with the problems of returns to scale, adverse selection, moral hazard and monitoring by focusing on group liability and cooperation (Giné & Karlan, 2006; Remenyi, 1999; Simanowitz & Walter, 2002). There are various aspects of group contracts that motivate clients: they enjoy sharing ideas, learning and the social aspects of group meetings (Armendáriz de Aghion & Morduch, 2005). Pitt and Khandker argue that “group members can monitor each other with relative ease as well as train and assist low-productivity members” (1998: 962). Navajas and colleagues (2000) find that group lenders in Bolivia have more depth of outreach (i.e. reach the poorest more) than individual lenders because they substitute joint liability for physical collateral.

The cultural dimension of masculinity provides a good explanation of why all-female groups in a county with a high ranking in the masculinity index, such as Mexico, will behave differently than all-male groups or mixed groups (Hofstede, 1997). Whereas females in
Mexico will possess more masculine values than females in cultures with more feminine values, there will also exist a wider gap in Mexico between the values of males and females regarding this cultural dimension. A review of Hofstede (1997: 82, 91, 93-97, 103) reveals that the feminine pole emphasises “cooperation”, “mutual help”, “aid”, “caring for others”, “concern (for) relationships”, “sympathy for the weak”, “solidarity”, “equality”, “consensus”, “common solutions”, “compromise”, and “negotiation”. Mutual insurance (help), solidarity, and joint-decision making would clearly appear to be values that feminine cultures espouse. In addition, if all-female groups cooperate more, are more concerned with their group relationships, and help each other out more, it seems logical that clients in all-female groups will learn more from each other than clients in all-male groups or mixed groups.

Group forces may motivate female clients more than male clients and influence women to behave with more social responsibility and, as a consequence, misuse funds less. According to my exploratory study (Griffin, 2008), women in Mexico collaborate more effectively in microfinance groups than men and may provide more support and feedback to their co-members. Therefore, groups of poor women may be more efficient at transferring knowledge amongst themselves than groups of poor men. For example, a spokesman for a government program in a predominantly rural state of Mexico claimed, after consulting with subordinates, that women “assimilate better the technical knowledge that is offered by the institution” (Griffin, 2008: 14).

Those studies that report encouraging results for female clients were carried out in MFIs that operate with group loans (e.g. Hashemi, Schuler, & Riley, 1996; Kevane & Wydick, 2001; Pitt & Khandker, 1998; Pitt, Khandker, & Cartwright, 2006). Group support may motivate women more than men. Women working as employees in BRAC demonstrate high levels of group support. “They cooperate by getting loans from each other, in household
work, and even in sharing mental pressure” (Khan, 1999: 434). Groups also provide women with opportunities for social learning, gender solidarity and ‘group reproduction’ (Griffin, 2008; Velasco & Marconi, 2004). Group-lending to women in Bolivia stimulates collective public action and these externalities are achieved when intragroup equality is high and the group has a collective experience of adversity (Velasco & Marconi, 2004). The microfinance programs that offer a range of services, such as training, health services and legal advice create intense loyalty from women. During the mid 1980s economic crisis in Bolivia, while the bulk of the microfinance loan volume declined during the recession, the volume of the all-female integrated MFIs continued to rise (Velasco & Marconi, 2004). The above literature suggests the following proposition.

Proposition 2: Clients in all-female groups will experience higher levels of mutual insurance, solidarity, peer mentoring, and joint decision-making than clients in all-male groups.

4.3 Peer-group Pressure

Peer-group pressure has been known to be very effective in large businesses in the developed world. Barley (2006: 18) emphasizes the importance of peer-group pressure in his review of another paper on self-managing teams:

He (Barker, 1993) discovered that teams replaced supervisory control with peer control and that peer control was subtler, more effective, and potentially more coercive than supervisory control, because workers now policed each other in the service of their organization’s goals and objectives. As any high school student can tell you, peer pressure is always harder to resist than the pressure of authority.
Some of the benefits of peer groups in a Grameen Bank replication in Chicago were said to be the filtering out of business projects that lacked potential and the inclusion of local know-how, informal assistance, encouragement and emotional support (McKernan, 2002). The influence of joint liability has been debated in the literature with some scholars arguing that self-selection into loan methodologies exerts a greater influence than joint liability. A laboratory experiment performed by Abbink and colleagues (2006) on German students, however, revealed insignificant differences between self-selected groups and groups that didn’t select their loan type.

The discussion of group participation above indicates that all-female groups will demonstrate greater concern for their fellow group members (Hofstede, 1997). A greater concern for relationships in all-female groups will contribute to higher levels of peer-group and community pressure in these groups. Social network theory, which argues that females tend to favour inter-personal relationships over instrumental, has similarities with Hofstede’s cultural dimension of masculinity/femininity, in that it argues that women are more concerned with non-aggrandising relationships. This theory suggests why group loans have had a large impact on the female clients of microfinance institutions, because in groups women are simultaneously able to engage in both inter-personal and instrumental relationships.

Peer-group pressure would seem to be a crucial factor contributing to the success of female groups that is largely overlooked in the microfinance literature. A few authors (Armendáriz de Aghion & Morduch, 2000, 2005; Rahman, 1999) and my exploratory study (Griffin, 2008) suggest that women may be more influenced by peer-group pressure than men. Armendáriz de Aghion and Morduch (2005) report that women in microfinance programs are said to be more susceptible to the verbal hostility and pressure of group members and MFI staff, whereas men have a greater tendency to resist and reject criticism.
Women also have a greater tendency to stay in or around the home and are, therefore, easier to locate, monitor and pressure, and they may find it easier to maintain membership in groups and programs over the long term. Therefore, according to Armendáriz de Aghion and Morduch (2005: 189), “because women are less mobile and more fearful about social sanctions, they tend to be more risk averse than men and more conservative in their investment projects.”

4.4 Community Pressure

In addition to peer-group pressure, the community will also pressure a defaulter to repay their loans. The higher social cohesion is in a community and the more collectivistic the local culture is, the more likely an individual will be to respect social and economic commitments. For example, in the Palar Valley of Tamil Nadu, India, when member tanners of common effluent treatment plants (CETPs) are late in their payments, the manager of the CETP will not only approach the individual member, but will appeal to the member’s close relatives (Kennedy, 1999). The small towns of the Palar Valley have a high level of social cohesion due to a shared identity and overlapping kinship, personal and religious ties. In an effort to prevent the culturally legitimate appropriation of female clients’ funds, Grameen Bank staff communicate to husbands through their wives that if their wives fails to repay their loans, the husbands will face the embarrassing situation of having their names mentioned in public and may be confronted by bank staff and members (Hashemi et al., 1996). MFI staff have been known to consult the friends of a potential borrower, her neighbors, extension workers and/or other key community members; visit the borrowers’ homes and businesses; and ask for character references from community figures before approving a loan (Armendáriz de Aghion & Morduch, 2000, 2005). Public repayments at group meetings are ideal for exerting social pressure on lenders. In order for
the borrower to obtain access to credit in the future the borrower’s reputation in the community will most probably be influential.

Pressure from the staff of the microfinance institution on clients outside of the defaulter’s group also creates greater community pressure. MFI staff have been known to threaten to withdraw all loans in an area, which means that joint liability may be practiced with all other lenders of a MFI in a certain area (Armendáriz de Aghion & Morduch, 2005). Those clients who are ready or almost ready for another loan are the ones most susceptible to this form of pressure. Therefore, MFI staff may pressure both the larger group of clients in an area and the defaulter’s loan group. Armendáriz de Aghion and Morduch (2005: 183) also observe that women “are often more easily swayed by peer pressure and the interventions of loan officers.”

Because women are more susceptible or sensitive to disparaging remarks and social pressure and also are less mobile than men, community pressure is also expected to be significant in group-based loans because other members of the group may exert pressure on the defaulter by appealing to family, friends and other members of the community (Griffin, 2008). Social control through the potential threat of reprisals from within the community is an effective tool for ensuring cooperation, especially when an individual’s status and reputation are at stake.

Proposition 3: Clients in all-female groups will experience more peer-group and community pressure than clients in all-male groups.

4.5 Social Capital

A debate has also arisen in the microfinance literature about the influence of social capital on groups (Abbink et al., 2006; Armendáriz de Aghion & Morduch, 2005). Social
capital has been thought to have been highly related to social sanctions in microfinance, however, strangers have been found to have similar repayment rates to friends. Studies that find that social capital is not a significant influence on repayment rates would appear to question the role of joint liability and social sanctions. Repayment rates in groups and micro-business growth may be influenced by the level of trust of group members and/or the proximity of members’ abodes (which may improve monitoring) and/or the level of social cohesion in a community (Armendáriz de Aghion & Morduch, 2005). According to Karlan (2005: 1698), his Trust Game experiment “demonstrates that trustworthiness is an important component in determining the success of group lending programs” and “if harnessed and/or identified, lenders can help solve failures observed in the financial markets of the poor.” Family members or friends may represent an unnecessarily high level of social capital, but social cohesion may still be a vital influence and this leads to the importance of environment in influencing group success. An environment with a high level of social cohesion may promote higher peer-group and community pressure. Laffont and Rey (2003) argue that both close social ties and information sharing give group contracts an advantage over individual contracts, although this may increase the likelihood of collusion against the MFI. But even in the case of collusion, these authors still argue that group lending is superior to other alternative loan methodologies.

4.6 Human Capital

McKernan (2002) dedicates a section of her paper to “The Effect of Microcredit on Profits via Human Capital” in which she describes how group-based MFIs in Bangladesh motivate the members of groups to assist each other. In all three programs included in the survey McKernan uses, group borrowers are motivated to look for their fellow members for advice or assistance instead of turning to MFI staff. She refers to a model provided by Varian (1990) that explains how two-period incentive schemes could influence profits through
incentives for the sharing of information between high-productivity clients and low-productivity clients. The number of high productivity clients would then increase. An increase in human capital can directly affect profits by providing extra inputs towards the production of the microenterprise or indirectly by increasing the productivity of other inputs. Families with high levels of human capital might be more likely to initiate a microbusiness because they can receive returns for their human capital only if they are involved in a self-employment enterprise. McKernan (2002: 97-98) summarizes the empirical implications of the theory she has presented:

If microcredit programs increase access to physical and human capital, they will enable households to undertake or expand self-employment enterprises. If these programs are bundling social development and training with credit and if they induce members to share information as in Varian’s incentive scheme, we should see an increase in profits above and beyond the effect of capital on profits.

Access to financial capital is not an advantage of group loans and neither is access to social development programs and training, although these programs seem to be more prevalent to group borrowers. Incentive schemes (peer monitoring, joint liability, and the loss of access to future credit) and the sharing of information increase both human capital and economic capital.

Some studies (Matienzo, 1993; Haase, 2006) claim that men are able to increase their incomes more than women in microfinance. Other researchers (Carloni, 1987; Clark, 1991; Kevane & Wydick, 2001; Wydick, 2002) state that female clients do as well or better than male clients in performance, sales and employment generation.

Taking into account the discussion to support Proposition 2, I argue that all-female groups will be able to increase social and human capital to a greater extent than all-male
groups due to higher levels of mutual insurance, solidarity, learning, and joint decision-making. Group participation will be more effective in all-female groups due to the feminine values that will be more prevalent in all-female groups (Hofstede, 1997). According to my exploratory study (Griffin, 2008), poor female microfinance clients collaborate more effectively in groups, support each other more, form stronger social ties, and are more influenced by peer-group pressure. It is expected that women will be able to increase their social capital more than men during the initial period of access to microcredit. As women are more concerned with relationships, female clients should be able to develop more social capital from microfinance group relationships than male clients.

The discussion in Proposition 2 also indicates that intra-group learning will be greater in all-female groups due to the prevalence of feminine values that emphasise cooperation, mutual assistance and concern for others. Intra-group learning should aid female clients to learn more about their business and increase their overall business-related human capital. Furthermore, higher levels of social capital will also lead to a greater accumulation of human capital (Grootaert, Narayan, Nyhan Jones, & Woolcock, 2004).

Higher levels of peer-group and community pressure in all-female groups (see Proposition 3) will also influence female clients to repay their loans more frequently. Higher levels of human capital, social capital, peer-group pressure, and community pressure will in turn lead to the growth of economic capital (Grootaert et al., 2004). Group loans and the more responsible investment habits of poor females will help to offset the advantages that males are said to enjoy according to the traditional theories of gender and business success mentioned in Proposition 1. Consequently,

Proposition 4: Clients in all-female groups will be able to generate as much capital as clients in all-male groups.
5 Environment, Loan Methodology and Capital Formation

There doesn’t appear to be sufficient literature that explains why MFIs may prefer to operate with large groups in rural environments and individual loans in cities. This could be explained by cross-cultural management theories. In particular, the cultural dimension of collectivism may explain why large groups may function better in rural environments where communities are still more closely knit (Hofstede, 1997). Some microfinance papers indicate that rural clients live in more closely-knit communities where people tend to have more information about their neighbours in contrast to urban dwellers, although the cultural dimension of collectivism is not mentioned in these papers (Abbink et al., 2006: 616; Armendáriz de Aghion & Morduch, 2005: 93-94, 109). Other authors state that rural areas tend to be more collectivistic than urban areas (Erez & Somech, 1996; Hofstede, 1997: 65, 74). My exploratory study (Griffin, 2008) indicates that peer-group and community pressure are stronger in rural areas of Mexico, where traditions and social ties are more binding, than in urban areas. Therefore, it will be more stressful for clients to default on their loans or exit from the program in rural areas. Gomez and Santor (2003) find that borrowers in certain neighborhoods in Canada outperform others and they report a negative coefficient in urban areas in contrast to suburban areas. This may be due to less group or community pressure in urban areas. Because communities in rural areas are more closely knit, group members will probably communicate more together and be able to interchange ideas and knowledge to a greater extent contributing to the creation of human capital. Lower community cohesiveness may make it more difficult to arrange meetings between large groups in an urban context. The creation of capital by group borrowers and individual borrowers in different environments has not been compared even though repayment rates appear to be lower in urban areas (Morduch, 1999).
In Mexico there is a tendency for MFIs to operate with groups of between 10 and 50 clients in rural areas, and with groups of between 3 and 9 clients and individual loans in urban areas (Griffin, 2008). Compartamos of Mexico provides “Female Credit” to groups of 12 to 50 women in rural or semi-urban areas, “Solidarity Credit” to groups of 3 to 8 clients in urban environments, and “Individual Credit” to better off clients in rural and urban areas (Compartamos, 2008; EGADE, 2004). However, according to Armendáriz de Aghion and Morduch (2005: 120), urban MFIs in Latin America and the transition economies of Eastern Europe have “eschewed group loans from the start.” Abbink and colleagues (2006: 616) suggest that it may be more difficult to create self-selected groups in urban areas of transition economies than in “closer-knit rural communities.” The Sarhad Rural Support Program (2008) in Pakistan provides microfinance to groups of between 3 to 5 members in urban areas and between 15 to 20 members in rural areas. Khandker (1998) recommends increasing the size of groups in Bangladesh, where MFIs primarily operate in rural areas, from 5 or 6 to 10.

Hofstede states that “identity (in a collectivistic society) is based in the social network to which one belongs” and the “economy (is) based on collective interests” (1997: 67, 73). It would seem logical that group loans would be better adapted to communities that are more collectivistic. I propose that higher social cohesiveness in rural areas will generate higher levels of social capital, social pressure, and effective participation within groups. This will lead to the creation of more human capital and, consequently, economic capital.

Proposition 5: Clients with group loans in rural environments will create more capital than clients with group loans in large cities.

Social cohesion will not affect individual loans. Urban dwellers should be more individualistic in their behaviour (Erez & Somech, 1996; Hofstede, 1997: 65, 74).
individualistic culture, “identity is based in the individual” and the “economy (is) based on individual interests” (Hofstede, 1997: 67, 73). Individual loans should be better adapted to urban areas where people are more individualistic as opposed to rural areas. Thus,

Proposition 6: Clients with individual loans in urban environments will create more capital than clients with individual loans in rural environments.

6 Discussion

6.1 Research Method

6.1.1 Exploratory Study

Before choosing the most appropriate research methodology, a qualitative exploratory study (Griffin, 2008) was conducted in northern and central Mexico with four informants. They were the acting Director of a provincial state government credit program who consulted with staff, the Chief Operations Officer of a private MFI operating in Mexico City, the ex-manager of a private provincial MFI, and a researcher specializing in credit unions. Questions were asked concerning the success of group-based loans; peer-group pressure; and group support, collaboration and participation. These initial interviews were designed to help me to refine my research problem. I also planned to ask questions comparing and contrasting group-based loans with individual loans. The interviews consisted of open standardized questions although the interviewer improvised on various occasions to obtain more data about a particular predefined or emerging construct. The interviews were recorded digitally, translated and transcribed. Then they were printed, studied, analysed, and compared with other sources of evidence: the documents, brochures and information provided by the informants and institutions involved, and previous literature reviews con-
ducted on microfinance in general, and microfinance, gender and group loans in particular. The analysis of the qualitative data followed three steps (Miles & Huberman, 1994). The first step involved the reduction of the data. Data was selected in order to identify the most important elements. The coding of these elements involved both predefined and emergent coding. The second step involved the organization and display of data in order to facilitate understanding. The important elements were organized into tables, figures, key quotations and summaries. The third and final step involved the elaboration and verification of conclusions. Relationships in the data were identified and validated systematically. Triangulation took place between interviews, documents and the relevant literature in journals and books. The results of this exploratory study (Griffin, 2008) are included in the above literature review.

6.1.2 Methodology

A survey was selected after originally considering a multi-method design consisting of a case study to generate new theory, and an interview-based questionnaire. Chen (1997: iv) suggests that both quantitative and qualitative methods can provide revealing data about microenterprises: “Whereas a quantitative survey can measure broad patterns and correlates of change, case studies can illuminate the impact process; test counter-factual or rival explanations; and investigate complex or unexplained phenomena.” A comprehensive exploratory study employing a case study could reveal new theory, but I already had some research questions that could make a significant contribution to the literature and that could be answered with a quantitative study.

The conceptual model and survey were developed from my literature review, exploratory study (Griffin, 2008) and two pilot surveys in two MFIs operating in Villa de García (Nuevo Leon, northern Mexico) and Milpa Alta (Federal District, central Mexico). The survey will be analysed with descriptive statistics, chi-square, t-tests, ANOVA and struc-
tural equation modeling. The final statistical tool is appropriate for testing all of the variables in my conceptual model not just the relationships between the independent and dependent variables.

The dependent variable is capital, divided up into economic capital (physical capital, money capital and labour), social capital (networks; trust; communication; and social cohesion) and human capital (skills and an awareness of the wider environment) (see Figure 1). The independent variable is loan methodology divided up into individual loans and group loans. The independent variable is modified by gender and environment (rural and urban). Group participation (mutual insurance, solidarity, learning by association and joint decision-making), peer-group pressure, and community pressure mediate the independent variable.

The research questions that I am asking need to be answered in a microfinance setting in a developing country and, therefore, an experiment would not be a valid substitute for an authentic environment. Abbink, Irlenbusch and Renner (2006) conducted an experiment on social ties and group size, but there are many limitations with their experiment on German students, including students knowing when the experiment would end. For my setting I have chosen to carry out two surveys on the clients of two Mexican MFIs located in various rural and urban environments of central Mexico. One survey consists of 255 MFI clients in the states of Hidalgo, Vera Cruz and the Federal District, and the other of 220 in the state of México, including areas of Mexico City. Two separate surveys were necessary in order to be able to test satisfactorily 5 of the 6 above propositions and also tentatively answer the last proposition analysing both surveys.

The exploratory study (Griffin, 2008) indicates that peer-group and community pressure is stronger in rural areas in Mexico, where traditions and social ties are more
binding, than in urban areas. It also suggests that female groups may cooperate more successfully than mixed or all-male groups. The reliability of the survey items was tested with Cronbach alpha and the survey components with factor analysis. Preliminary samples of 163 individual loans in northern Mexico and 125 group loans in central Mexico revealed that male clients with individual loans defaulted more than female clients with individual loans and that mixed groups defaulted more than all-female groups. A chi-square test indicated a significant difference between defaulting groups in urban and rural areas (χ² = 12.6; p<0.01) with mixed groups in urban areas being particularly unreliable (χ² = 14.5; p<0.01).

6.2 Contribution

6.2.1 Gender and Loan Methodology
This paper offers to make a contribution by building up a more complete theoretical model to explain why traditional concepts about gender may need to be revised in the context of microfinance and the bottom of the pyramid. Practitioners will benefit from research that sets out to test the conditions under which female and male clients create more capital.

Various studies investigate gender (Kevane & Wydick, 2001; Pitt & Khandker, 1998; Pitt, Khandker & Cartwright, 2006; Wydick, 2002) in microfinance and three studies (Abbink et al., 2006; Giné & Karlan, 2006; Gomez & Santor, 2003) attempt a comparison of individual and group loans. None of these studies compare loan methodologies taking into account gender and the research environments in the three studies concerned with loan methodology have limitations if we would like to compare the results with an authentic third world environment where individual and group loans operate separately. A rigorous study comparing both loan methodologies needs to be conducted in a developing country without the methodological problems of Giné and Karlan’s (2006) study in which individual
lenders were previously group lenders and still benefitted from group meetings. Explanations of group forces should take into account mutual insurance; solidarity; learning; joint decision-making; and group and community pressure.

Giné and Karlan claim that “despite being a question of first-order importance, empirical literature on group versus individual liability lending has not provided policymakers and institutions the clean evidence needed to determine the relative merits of the two methodologies” (2006: 3). A more complete measurement of capital creation is needed as the above studies have many measurement gaps. Business related economic capital, especially profit and physical capital, needs to be measured, as does social capital and human capital. Social and human capital should lead to the long term creation of economic capital. Also, the above studies make no attempt to measure the group forces that may influence capital creation. Ahlin and Townsend (2007) have attempted to measure joint liability, social ties, group cooperation and social sanctions in Thailand, but there may be a problem with their proxy for joint liability, which is the percent of landless members in the group (landless members won’t have collateral and will have to pay for other members). This could be a proxy but is also a proxy for wealth (or lack of it). The models they consider fix group size at two. Also they don’t discuss gender or take into account individual loans.

Concerning loan methodology, Armendáriz de Aghion and Morduch (2005: 101) comment that

empirical researchers have tried to shine a bit of light on questions around the roles of groups, but getting clean results has not been easy. In the perfect world, empirical researchers would be able to directly compare situations under group-lending contracts with comparable situations under traditional banking contracts.
There are questions about whether self-selection or other program aspects (e.g. “management style, training policies, and loan officer behavior”) are influencing results (Armendáriz de Aghion & Morduch, 2005: 102).

The best evidence would come from well-designed deliberate experiments in which loan contracts are varied but everything else is kept the same. This can be achieved in a lab setting (see. e.g. Abbink, Irlenbusch, and Renner 2006), but has not yet been done in the field (Armendáriz de Aghion & Morduch, 2005: 102).

6.2.2 Environment

There also is a lack of research about the influence of environment on loan methodology. Related to the above debate on joint liability, there appears to be no literature to explain why large groups of 10 or more clients may be preferred in rural environments and why individual loans are preferred by many MFIs in the city. This link between collectivism and preferred loan methodology is not sufficiently emphasized in the literature.

Some studies find that having close friends or stronger social ties in a group actually worsens repayment rates, although other studies challenge this (see Armendáriz de Aghion & Morduch, 2005: 103-104). Group lending in rural environments is said to overcome adverse selection, but does this operate equally effectively in urban environments? Adverse selection is probably more easily overcome in rural environments where people are better informed about their neighbors and the families that live nearby. In urban areas less is probably known about the people that live in one’s neighborhood due to population density, population mobility and the more individualistic tendencies of urban dwellers.

6.3 Future Research

6.3.1 Gender and Group Loans
The economic theory about loan methodology doesn’t explain sufficiently why women in groups have higher repayment rates than men. Research should examine whether women are more susceptible to peer-group or community pressure than men.

An explanation of gender, group loans and capital creation in the microfinance context may be generalizable to other businesses not served by MFIs that operate at the bottom of the pyramid in emerging economies (Hammond & Prahalad, 2004; Hart, 2005; London & Hart, 2004; Peredo & Chrisman, 2006; Prahalad, 2005a; Sen, 2000). Further research could also investigate whether the advantages of female microfinance groups are shared by other female groups that operate in the informal and formal sectors of emerging and industrialized economies. Santor and Gomez (2003) ask whether their results concerning loan methodologies can be generalized to workplace teams and to other regions in which MFIs operate. Further research can investigate the level below or above the poverty line at which group loans become less effective and whether group liability or group lending logistics can be applied at all to small loans provided by traditional banks.

6.3.2 Group Size and Environment

There is also a need for research on the effectiveness of group size in rural and urban environments. Large groups of 10 or more clients (the village banking approach) will probably be more effective than small groups of between 3 to 9 clients (Grameen-type groups or solidarity groups) in rural areas, where community is more cohesive, due to higher levels of peer-group and community pressure, and higher levels of social capital and human capital within the group. In rural areas, capital creation per capita may begin to decline with groups of more than 50 people and this may be true in urban environments with groups of more than 10 people due to lower levels of collectivism.
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