

Entrepreneurship and Microfinance
A Review and Research Agenda

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Abstract

In this paper, I review fifty four research papers spanning a 10 year period between 1998 and 2008 on research questions related to microfinance and entrepreneurship. I highlight the main research questions, summarize the most common methodological approaches and key findings, and offer observations on gaps in the literature with suggestions for future research questions.

Introduction

The productivity of a community is correlated with its accumulated human capital and the capital stock (i.e., technology) to leverage that human capital. In subsistence economies, where the capital component of the production function is small, the consumption possibility frontier is given by the available human capital. Hence, in order for a community to rise above its consumption possibility frontier, it has to accumulate capital (i.e., technology) at a rate faster than consumption.

Among development economists, there is a notion of the ‘energy deficit’ in community welfare. This is when the energy expended by a community to engage in consumption (searching for food, drawing water from long distances, subsistence farming, and the like) does not yield a production surplus that can foster deferred consumption (Elahi and Danopoulos, 2004). Deferred consumption is critical for consumption smoothing to account for negative shocks to productivity. For example, during droughts, grain stock may be depleted by current consumption to the extent that little is left over for the next planting cycle, effectively cutting off the possibility of future consumption (Mckenzie and Woodruff, 2006). This ‘poverty trap’ ensures a continual dependence on external injections of resources such as food aid without the potential for a community to reach endogenously stable

consumption/production equilibrium. Poverty traps are hence associated with poor human health and nutrition, public hygiene, education, and other social bads that, in turn, increase the energy deficit in a never ending spiral of human misery (Adams and Raymond, 2008; Mckenzie and Woodruff, 2006).

Therefore, it has been argued, a way to break the poverty trap is to encourage petty entrepreneurship among the poor, in order to foster production surpluses (Varghese, 2005). This is accomplished by increasing the capital component of the entrepreneurial production function to leverage the individual's human capital, since in the short run the productivity of human capital cannot be significantly improved. The resulting elimination of the energy deficit leads to capital accumulation, consumption smoothing, and the possibility of sustained future production. Accordingly, micro-credit, as the means to increased capital, is the primary input to kick-start the entrepreneurial production process in these communities (Midgely, 2008).

Note that micro-credit has, in one form or another, been available to poor communities for centuries. It is not a modern concept (Adams and Raymond, 2008; Hollis and Sweetman, 1998). Moneylenders and *chettians* have existed for a long time in Chinese and Indian communities to provide credit at high interest rates. The fact that the poverty trap persists is also not, apparently, due to the high interest rates attached to these forms of financing (Varghese, 2005). Instead, it appears to be a combination of social stigma from failed attempts at entrepreneurship, institutional constraints on lending practices, and the inability to recover quickly from setbacks such as natural disasters and personal loss such as the death of a household earner. This realization has led modern micro-credit practices to address the social and political impediments to entrepreneurship as much as they try to solve the problem of credit availability, adverse selection and moral hazard (Hollis and Sweetman, 1998).

Research in Microfinance

Microfinance in Theory

Early studies in microfinance sought to understand why they worked or didn't (Nair, 2001; Brau and Woller, 2004). The typical structure of a microloan, typically a few dollars to less than two hundred dollars, involves the creation of a loan committee composed of trusted members (usually elders) of a village or community. The loan committee then makes loans to groups of four or five borrowers who are known to each other (some program prohibit relatives from belonging to the same borrowing group) who then decide among themselves who will get the first tranche of loans. These 'solidarity groups' meet weekly to discuss their businesses, problems, and family issues, all of which impact the ability of the member to repay on time. Groups receive advice from program officers, who often act, as with the Grameen Bank, as family counselors, social workers, emergency first responders, and financial advisors (Chavan and Ramakumar, 2002; Hassan, 2002). Such extreme relationship management practices are designed to build trust, compound social capital, and strengthen network ties among the borrowers and the micro finance institution or mFI. In the early days of the Grameen Bank, founded by Dr. Mohammed Yunus in Bangladesh, for example, bank officers found it difficult to give out loans because of suspicion among villagers, and experienced push back from the village *chettiers* (moneylenders) that viewed the Bank as competition. Bank officers resorted to social work to first build trust before promulgating their loan program (Hassan, 2002).

Microfinance in Practice

According to the theory, the purpose of micro-finance is to enable the acquisition of technological capital to kick-start the entrepreneurial process (Navajas, Schreiner, Meyer, Gonzalez-vega and Rodriguez-meza, 2000). Yet, politically, the idea that the free market can help break debt cycles and foster income-generating market activities within poor communities did not gain recognition until the publicity won by the Grameen Bank (Hassan, 2002). Government social policy could not reconcile the high interest rates associated with micro debt markets and indeed often sort to shut down those markets by enforcing usury laws (Crabb, 2008; Elahi and Danopoulos, 2004; Tsai, 2004).

From a business standpoint, other obstacles have denied poor people access to credit, such as the lack of collateral. No standard existed to affirm how financial institutions could benefit from bearing the administrative costs and the risks of loaning to the poor (Brau and Woller, 2004). Servicing microloans or monitoring the provision of grants is economically infeasible for traditional financial institutions and government because of the costs of identifying, delivering, and monitoring micro-credit to communities who are not already part of the market economy (Navajas, Schreiner, Meyer, Gonzalez-vega and Rodriguez-meza, 2000; Tsai, 2004).

However, mFIs such as Grameen Bank have shown that the notion credit must be extended in large quantities to be profitable is false (Hassan, 2002). Grameen Bank and others have given loans to solidarity groups of five people, using the *opportunity* for everyone in the group to secure future credit as collateral, with peer pressure as an additional incentive to ensure repayment. By charging market interest rates (or higher than market interest rates), these institutions are able to cover their administrative costs while enjoying repayment rates significantly higher than that of the traditional commercial banks (Nair, 2001).

In sum, much of the early research on mFI sought to understand the role and impact of non-traditional methods of delivering credit and for sustaining lending capacity to the poor (Brau and Woller, 2004). For example, by charging high interest rates, mFIs can afford the high transaction costs of processing large volumes of loans as small as a few dollars. The specific forms of micro-financing, e.g., lending to groups rather than individuals, bringing financial capital *to* the borrower rather than waiting for the borrower to apply for funding, and so on are ways to mitigate the specific social and structure impediments that make traditional forms of financial assistance ineffective or economics infeasible (Navajas, Schreiner, Meyer, Gonzalez-vega and Rodriguez-meza, 2000).

It has been noted in the literature that group lending affects the behavior of the poor by altering economic incentives through the provision of credit and by providing social development inputs intended to influence behaviors. It is has also been argued that group lending gives the poor dignity and self-esteem that comes from having control over the future of their lives and those of their progeny (Crabb, 2008). It is thought that such psychological resiliency enables individuals to overcome the inevitable shocks that come with regions known for drought, wars, floods, and other man-made and natural disasters.

Dependent Variables in the Research

My reading of the literature suggests a number of clearly identifiable questions being addressed. The first seeks to characterize micro-lending programs along a continuum of goals anchored by sustainability, given by the repayment rate and depth of lending capacity on one end, and outreach, given by the degree to which the program alleviates poverty and attendant problems (health, fertility, education, nutrition, and the like), and community welfare (Field and Pande, 2008).

The early research on the effectiveness of program outreach focused on the use of loan funds for consumption versus investment by borrowers. Given that the ability to engage in entrepreneurial activity is predicated on a minimal level of human capital (health, competence, personal motivation and drive, knowledge and so on), it is expected that part of the use of microloans would be devoted to increasing household human capital (Elahi and Danopoulos, 2004). Such immediate consumption will attenuate the intensity of technological capital and hence the future earning potential of the entrepreneur. Additionally, measures of outreach have converged around the six dimensions of: worth to clients, cost to clients, depth, breadth, length, and scope out outreach (Schreiner, 2002; Chowdhury, Mosley and Simanowitz, 2004; Patten, Rosengard and Johnston Jr., 2001).

The early literature tend to model these goals as exclusive and hence attempt to find the normative sweet spot that balances the two goals, reasoning that sustainability implies higher interest rates, less loan forgiveness, and relatively lower risk tolerance for extremely poor borrowers. The later research tend to model the two goals as necessary to each other in that outreach goals can only be achieved if the program's sustainable goals are met (Vigenina and Kritikos, 2004).

The social desirability of poverty alleviation has tended to influence much of the early research toward normative theory building (Adams and Raymond, 2008; Elahi and Danopoulos, 2004). As a consequence the early empirical literature focused on finding models of successful programs and thus mainly employed clinical case studies with rich descriptions of program structure and program outcomes (Hollis and Sweetman, 1998). As with most research employing case studies, the earlier work selected on the dependent variable (program success) and hence resulted in few testable hypotheses. Later studies stuck with the normative approach, and attempted verify the models by measuring program sustainability such as repayment rates, loan portfolio size, spread between market and

program interest rates, the need for continual or periodic subsidies to replenish loan capacity, and the like. They also investigated the consequence of program outreach such as the depth of reach into the poorest communities, the size of loans, the number of communities lifted from poverty levels, new microenterprise starts, sustainability of microenterprises after they have launched, and so on (e.g., Nair, 2001; Field and Pande, 2008).

The follow up to clinical studies on program structure and outcomes naturally focused on building and assessing models of program evaluation and impact assessment (Crombrugghe, Tenikue and Sureda, 2008; Hollis and Sweetman, 2001). Here, the questions revolved on data collection and verification, discussions on the use of parametric versus non-parametric approaches to measuring outcomes, and the appropriate outcome variables to measure. At this time, there does not appear to be a common standard for evaluation, with each program using its own sets of measures. In part, this has resulted from programs being extensions of aid projects and the implications for showing program success to ensure the continuation of funding. Researchers who have attempted to do cross program evaluations have run into data incompatibility arising from differences in definitions, and unreliable reporting from the field (Adams and Raymond, 2008).

The most common methods in the research employed surveys or used data from surveys taken by program administrators with regression analysis to report model fit. Later studies employed panel data and the appropriate regression techniques to correct for obvious problems related to program, and region fixed effects (e.g., Amin, Rai and Topa, 2003; Crombrugghe, Tenikue and Sureda, 2008).

There has been more progress on descriptive theory building than theory testing. Early normative models gave way to descriptive models that discovered the importance of the social network dimensions of microfinance (Nair, 2001; Karlan and Zinman, 2008). Because microfinance used a group lending model, it was quickly discovered that network effects

played an important role in solving the adverse selection and moral hazard problem since borrowers were only able to obtain the next round of financing if everyone in the borrowing group paid up in full.

Thus, early methods to understand such dynamics used multistage game theoretic models with varying (dis)incentive schemes and payoff matrices to a. understand where the forces for self governance came from (the preservation of social capital or the structure of the payoffs) and b. build normative models to assess variations of the standard micro-lending contract, such as debt forgiveness, size of lending group, punishment for strategic non-payment, and so on (Hollis and Sweetman, 2001; Hudon, 2008; Velasco and Marconi, 2004).

Although mFIs generate revenue for their activities through philanthropy and deposit taking (Hollis and Sweetman, 1998; Hudon, 2008), more attention has been paid to the philanthropy activities of mFIs with been paid to their deposit taking function. In regions that are regularly visited by natural disasters such the annual flooding in Indian sub-continent delta, deferred consumption is critical to enterprise recovery and continuity. However, not much is known about what mFIs do with deposits, such as whether they employ traditional deposit based revenue generating methods (i.e., investing) and how they manage this activity. Given that microentrepreneurs have to save in order to foster enterprise continuity and capital accumulation, mFIs are well positioned to enable such capabilities. Indeed many have developed parallel programs to educate borrowers on risk and money management strategies, beginning with strategies to defer consumption.

Policy Research on mFIs

Policy research revolves around the question of whether government intervention in the microfinance industry, for example by imposing interest rate ceilings, ultimately impacts outreach depth and effectiveness (Coleman, 2006; Hartarska and Nadolnyak, 2007; Rankin,

2002; Schreiner, 2002). The research seems to suggest that government intervention that increases the risk exposure of mFIs tend to trigger a portfolio selection mechanism that ultimately results in the less poor obtaining most of the available loan capital, i.e., shallower program reach (Chowdhury, Mosley and Simanowitz, 2004).

Research on the program outreach of mFIs has also sought to answer the difficult question of what is meant by effectiveness, which has important policy implications (Amin, Rai and Topa, 2003; Chowdhury, Mosley and Simanowitz, 2004; Crombrugghe, Tenikue and Sureda, 2008; Schreiner, 2002). For example, on the relationship between government policy and mFI objectives there is convergence in the area of poverty alleviation (Tsai, 2004). However, in other areas government objectives conflict with mFI objectives; for example distributive justice and fairness cannot always be fully achieved if mFIs are concerned about program sustainability (Nair, 2001; Rankin, 2002; Tsai, 2004).

Additionally, government tends to view microfinance as a substitute for direct aid (grant), so that mFIs are viewed as simply a more effective form of aid distribution (Chowdhury, Mosley and Simanowitz, 2004; Karlan and Zinman, 2008). Hence, government policies (e.g., encouraging loan forgiveness or lower credit standards) that govern mFIs favor those focusing on outreach, whereas mFIs that view microcredit as an input for sustain entrepreneurship cannot allow revenue shortfalls to occur since to do so will limit sustainability (Hartarska and Nadolnyak, 2007).

As discussed earlier, attached to issues on program outreach are those related to program sustainability since the ability reach out is fundamental determined by the health of the loan portfolio and capacity (Crombrugghe, Tenikue and Sureda, 2008; Shreiner, 2002). The research here divides into concerns over repayment and contract incentives to maximize repayment, and concerns over competition between mFIs in a region (Morduch, 1999; Varghese, 2005). The key phenomenon related to mFI competition is the risk of multiple

loans to the same individuals, usually brought about by competition among mFIs in the same area (Coleman, 2006; McIntosh, Janvry and Sadoulet, 2005; McIntosh and Wydick, 2005).

Multiple loans weaken the repayment (dis)incentives imposed by the mFIs since the financial costs of defaulting on any particular loan is mitigate by access to alternate sources of capital (Hartaska, 2005).

More significantly, some research has focused on the problems attending competition between mFIs and government grant programs. The latter tend to provide capital at little or no interest but due to the difficult of identifying and reaching the poorest borrowers often end up providing capital to the less poor, often in urban areas (Coleman, 2006). mFIs, on the other hand, have the mechanism for deeper outreach into the rural regions but can only do so if they can recover the high cost of their capital. The theoretical approach typically used to study competition between repayment is agency theory, in which the issues is the research

The Concept of Social Collateral and its Relationship to Microfinance

In the most recent literature, the notion of social collateral (as a corollary to social capital) has become the basis for understanding why repayment rates were so high (Anderson, Locker and Nugent, 2002; Dowla, 2006; Mosley, Olejarova and Alexeeva, 2004). The argument is that the loss of social collateral represents a destruction of social support and resource acquisition capability in rural communities that are naturally collective oriented (Pickering and Mushinski, 2001). The resulting loss of a social safety net impacts human health, nutrition, and security as those without social collateral are not able to engage in the social exchanges necessary for consumption smoothing in times of personal resource paucity (Dowla, 2006; Pickering and Mushinski, 2001). Therefore, borrowers repay at high rates, even if they had to borrow from moneylenders, in order to protect the value of their social collateral (Chavan and Ramakumar, 2002). Hence, program structures began to converge

around those that sought to build and maximize social capital between lenders and the community, and within the community, such as the Bank Rakyat Indonesia (Patten, Rosengard and Johnston Jr., 2001) and Grameen Bank models (Dowla, 2006).

Early conceptualizations of microcredit as an input into the production process are giving way to viewing microcredit as methodology for fostering entrepreneurship (Dowla, 2006; Pronyk, Harpham, Busza, Phetla, Morison, Hargreaves, Kim, Watts and Porter, 2008; Singh and Belwal, 2008). As a consequence of analyzing microfinance in terms of social network theory, there has been some exploration into the notion that microfinance serves as a bridge to building social capital, which is itself an input into the opportunity identification process (Gomez and Santor, 2001; Olejarova and Alexeeva, 2004).

Research on entrepreneurial teams has suggested that knowledge spillovers between teams can drive innovation. The social networks created between borrowers that are part of lending groups enable the sharing of information, joint problem solving, and creative solution seeking, which can lead to improvements in business practices, new opportunity identification, and better risk management strategies for the microenterprises being formed (Midgely, 2008; Gomez and Santor, 2001). In addition, the value networks forms by such enterprises allow the entrepreneurs to better manage external shocks such as natural disasters, conflict, and market reversals (Velasco and Marconi, 2004). Hence, microfinance is seen here, not as an end to itself, the provision of credit, but a tool for creating value networks.

Governance issues in Microfinance

As might be expected a good part of the research is devoted to modeling and understanding the monitoring and control mechanism underlying the microfinancing system (Conning, 1999; Tedeschi, 2006; Mersland and Strom, 2008). The concept of group lending, coupled with strict repayment terms, little debt forgiveness, and draconian punishment for

non-payment (denied access to future credit for the entire group) is designed to create self-governing mechanisms at the group level (Karlan and Zinman, 2008; Simtowe, Zeller, Phiri and Mburu, 2007). Variations in the elements of a group lending policy are typically modeled using two player game theory to discover the impact on strategic non-repayment decisions (Dutta and Magableh, 2006; Paxton, Graham and Thraen, 2000).

Early versions of the game found that extreme moral hazard occurred, such that when one borrower from a group defaulted, the entire group tended to default. Since this result did not square with real world observations (the entire group is more likely to cover the losses of the defaulter), newer formulations of the game used two stage models to consider the game from the borrower's viewpoint (Conning, 1999; Vigenina and Kritikos, 2004; Paxton, Graham and Thraen, 2000). In the first stage, the decision to borrow is modeled in the context of whether a borrower decides to join a group or obtain credit from an alternate source, such as a moneylender or government grant program. The second stage then is the decision to default (Dutta and Magableh, 2006).

Inevitably, dual player staged models gain complexity in the form of multiplayer simulations in which group dynamics are brought to bear on the decision to default (Tedeschi, 2006). This approach then became the bridge to the research on social collateral, in which the governance mechanisms of the group are characterized as bonding, linking and bridging social capital (Olejarova and Alexeeva, 2004; Paxton, Graham and Thraen, 2000). Here, the research revolves around trust building, maintenance, and the social network dimensions that foster group cohesiveness, mutual monitoring, and shared governance (Anderson, Locker and Nugent, 2002; Dowla, 2006; Tedeschi, 2006).

Other research considered the governance implications of the capital structure of an mFI, which is a mix of public funds (government and NGO grants), and private funds (equity shares, deposits, and investment returns) (Hudon, 2008; Kyereboah-Coleman, 2007; Preters,

2002). Such unique structures (traditional financial institutions are almost always private funds, unless the institutions are government owned or have central banking roles) carry governance challenges related to the primary operational goals of the institutions (Mersland and Strom, 2008). Those emphasizing outreach tend to put more weight on public funding, which then triggers the question of performance measures and accountability, whereas those emphasizing sustainability focused on return on capital invested and are better positioned to rely more on private funds.

Related to this is a stream of research looking at the relationship between the formal capital markets and the microfinance capital market (Kyereboah-Coleman, 2007; Preters, 2002). While the cost of funds in the microfinance market is supposed to be risk determined, the models used to determine such rates cannot easily be adapted from those used in the formal capital markets where information is more complete (Hudon, 2008). Yet, if the mFI obtains a portion of its capital from the formal capital markets, it must find ways to reconcile the differences between the two markets and develop mechanisms to straddle the differential risks, for example obtaining government subsidies (Morduch, 1999).

The capital structure of an mFI is related to the governance priorities of its board, the type of board structure and composition, and the relationship between the board and the institutions management (Hartarska, 2005; Kyereboah-Coleman, 2007). For example, those mFIs that are focused on program sustainability then to charge very high interest rates to account for the higher risks they bear. Yet, studies have shown that the willingness to pay high interest rates, often up to 35% is high among microentrepreneurs (Chavan and Ramakumar, 2002). An interesting side effect of high interest rate policies is that there is crowds out the market for arbitrage by village elites (who often obtain low cost government grants to lend out at higher interest to villages who do not have the same privilege of access) and hence a more direct application of funds for their intended use.

Gaps in the Research and Suggestions for Future Research

Much of the research on mFIs has focused on the purpose, structure, and effectiveness of these institutions in poverty alleviation and sustainability. It has also considered the relationship of these organizations with its stakeholder network: government, other NGOs, beneficiaries and donors (Marconi and Mosely, 2006). My reading of the literature has revealed a number of important gaps, which represent fruitful opportunities for future research.

As I have observed in this review, the research in this domain began normatively. As such, normatively, it would be useful to ask if mFIs represent a substitute to failed institutions (i.e., government grant programs or NGO aid agencies) or are they market mechanism to augment the role of aid agencies (Marconi and Mosely, 2006; Meyer and Nagarajan, 2006)? The reason is that direct aid aims to bring immediate relief to disadvantaged communities whereas mFIs aim to create a sustainable source of value creation and a means to break the poverty trap. If the latter perspective holds water, then policies governing mFIs may work better if they are constructed to treat these organizations as financial institutions rather than as aid agencies. Formal modeling of outcome tradeoffs under different policy regimes (e.g., those emphasizing outreach versus sustainability) would be a technique to answer such questions. Yet, we would not be able to reach this stage in our thinking without first considering the descriptive theory underlying the relationship between mFIs and entrepreneurship.

My reading suggests that an understanding of how mFIs foster microenterprises has only recently been attempted (e.g., Midgely, 2008; Singh and Belwal, 2008). The creation of the microenterprise is often a black box in the program evaluation models, many of which

focus on the outreach outcomes of poverty alleviation. Part of the challenges in this research is data collection and the definition of a sustainable enterprise.

It may be that microenterprises are naturally short lived, since the opportunities themselves may be fleeting. For example, the provision of satellite communication services to a village by an entrepreneur is an opportunity until the arrival of widespread cell phone infrastructure (Bayes, 2001). Therefore, large scale empirical research on the impact of the social network dynamics of borrowing groups on the incidence of serial entrepreneurship by members of the group may represent a theoretically richer direction.

While the research on mFIs and poverty alleviation is rich, there is less research linking mFIs to the secondary impact of poverty alleviation such as nutrition, fertility control, healthcare, public hygiene, education, and so on (Nader, 2008; Panjaitan-Drioadisuryo and Cloud, 1999). Given that entrepreneurship requires a minimal level of human capital for a starting point, such research may be important to understand the *level* of such factors that ultimately trigger entrepreneurial activity.

In terms of general theory, such research maybe fundamental in helping us understand the necessary human factors that are associated with nascent entrepreneurs. Most research in entrepreneurship has taken place in relatively well developed economies or emerging economies with well defined institutions. Research on the human capital drivers of entrepreneurship in the poorest regions of the world may help us develop more complete theories of entrepreneurial emergence.

It has been documented that most of the entrepreneurial activity undertaken by mFI credit belongs to women (Nader, 2008; Panjaitan-Drioadisuryo and Cloud, 1999). In great part this is because mFI programs generally target women. The reason is that women, particularly those who are primary household earners, are generally disadvantaged in terms of property rights, inheritance rights, court protection, personal safety and health in the poorest

regions of the world (Velasco and Marconi, 2004; Barsoum, 2006). Yet, as keepers of their households, women have a great influence on child welfare, health, family continuity, and social cohesiveness than men (Nader, 2008).

The current theoretical understanding of women in entrepreneurship can be extended by questions on the relationship between mFI programs and the political and social environment surrounding women entrepreneurship in rural and poor regions. Additionally, answers to questions on gender and micro-entrepreneurship could represent new pathways to discourse on family sociology and family enterprise (Panjaitan-Drioadisuryo and Cloud, 1999; Barsoum, 2006).

According to McKenzie and Woodruff (2006), the lack of access to start up capital does not always prevent the creation of positive return enterprises. In fact, research in venture capital highlights the social and managerial competence value that the venture capitalist provides to the entrepreneur, rather than the provision of financial resources.

Therefore, research on the impact of social capital generated through group lending on entrepreneurial behavior can be extended to include opportunity identification, learning effects, and risk taking behaviors as outcomes (Pronyk, Harpham, Busza, Phetla, Morison, Hargreaves, Kim, Watts and Porter, 2008). This research is less concerned with microcredit as a production input as it is a cultural and sociological mechanism for network formation.

Methodologically, many scholars have commented on the difficulties in measuring the impact of mFI on sustainability and poverty alleviation (c.f. Hulme, 2000; Woolcook, 1999; Manos and Yaron, 2008). The jury is still out on whether mFI programs really alleviate poverty or are they another form of direct subsidy to communities. The basic reason for this is that extant models are rife with endogeneity issues (Hulme, 2000).

Second, dependent variables in program evaluations are necessarily multidimensional with some dimensions being orthogonal to each other (loan recovery versus provision of aid).

Therefore, there has yet to be an agreed model for program evaluation. More significantly, this lack of agreement also implies that our empirical models (the dependent variables in particular) are unstable. Theory testing is hence a challenge.

Finally, as previous scholars have noted, a serious problem with the empirical research is the selection bias encountered in the data. Except in a few cases, where case studies are reported, these have been of successful programs (Woolcook, 1999). Hence, the findings (and subsequent policy prescriptions) may be biased by the context and other fixed effects peculiar to these programs.

In the case of large scale data driven studies, programs that report their data have an incentive to ‘dress up’ the outcomes because future government and NGO support depends on reporting success. This right tail bias in the data is not easy to correct since it is not possible, ex-ante to determine the size of the bias. Hence, a fruitful avenue for future research maybe in apply new approaches to data gathering (such as snowball interviewing) that can correct for these problems.

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