Piotr Kowalczyk *5604930221*

EE468

Integrated Public Economics, Development and Political Economics

Research Proposal

An urban microcredit experience:
Assessing the impact of the access to the credit market on intrahousehold discriminations

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Motivations

Microfinance was presented as a revolution when first implemented in 1983 through the Grameen Bank. It was supposed to help the poorest of the poor escape poverty by accessing to the credit market, enabling them to become entrepreneurs (Yunus, 2011). Mainly targeting women it should additionally empower women and reduce gender inequalities. Showing repayment rates as high as 95%, it has been adopted worldwide and even praised by world corporations as CITI (Morduch 1999). Some have criticized a model favoring overindebtness of the most fragile, other denounce the massive government subsidy that FMI get while most are not convinced anymore that allocating money to FMI will really stimulate development (Morduch 1999).

Most of academic studies have focused on the repayment and group lending side of MFI in underdeveloped countries (Udry 1994, Jain 2003, Giné 2011). Attempts at showing their positive outcomes for the rural poors have not brought strong evidence (Morduch 1999). Moreover, it appears that results are really heterogenous depending on the context and the wealth (Coleman 1999, 2000, Giné 2011). When it comes to urban environments, studies are even more mixed (Banerjee et ali. 2009). Nonetheless, developing countries as Thailand have launched massive microcredit schemes. Measuring their impact is thus of great importance, first for cost reasons and then for efficiency reasons, because it appeared through studies that MFI did not benefit to the “poorest of the poor”, but rather to the relatively poor (Coleman, 1999, 2002, Banerjee et ali 2009). Thus microcredit could in fact be far more beneficial for poor in developing countries, relatively wealthier than poor in underdeveloped countries.

Finally, the promise of gender inequality reductions does not seem to have been met in underdeveloped countries (Banerjee et ali. 2009). Non-unitary households models have shown that a household's welfare partly depended of the bargaining power of its members. When empowered, women would increase the general utility of the households, contrarily to men who will prioritize their own utility (Duflo 2003). Reducing intrahousehold discriminations is thus one the main way to increase household's and countries welfare (Sen 1990, Udry 1996, Qian 2008). It can be argued that the impact of microcredit on them would be different in a middle-income country. Measuring it remains thus of core interest.

The context

Sustained Thai growth since Second World War has stimulated a rural exodus resulting in a continuous increase of Informal Urban Settlements. Their size ranges from 40 to 500 households on average except in the particular case of Khlong Toei slum in Bangkok (CODI). Inhabited by daily laborers and small traders, they are often located amidst medium or high wage areas. This location is an advantageous opportunity. However, assets of their members – estimated to be as low as 2,500$ and not much higher than 12,500$ (Daniere et ali. 2005) – put a credit constraint on many of them. Traditional sources of credit for the poorest are family members moneylenders – most of them offering dayloans with interest rate which can go as far as 20%/day (Daniere et ali. 2005) – and Production Credit Groups (de la Huerta 2010, Townsend 2013). Hoontrakul (2007) estimated that about 1 million Thai lived under the absolute poverty line as of 2006, thus facing this credit constraint.

The Thai Government is strongly involved in micro-credit programs with heavily subsidized rates aimed at changing this reality, thus preventing most private sector actors from entering the MFI market. The Urban and Village Fund Committee program was started in 2001, resulting in the formation of Committees in 99.1% of Thailand's communities. Each of this Committees was granted 1 million bhat through the intermediary of an account at the Government Savings Bank (GSB) or the Bank for Agriculture and Agricultural Cooperatives. This amount had to be loaned to the members of each Fund. Loans have since been granted at an average of 17,700THB in urban Funds (de la Huerta 2010), with an 8% interest rate and 12 month term with once a year repayment at the end term of the loan (Boonperm 2009, 2012, de la Huerta 2010, Kaboski and Townsend 2009).

Studies have shown high repayment rates in rural areas but some surprisingly high default rates in urban areas – almost 20% per year from 2005 to 2007 (de la Huerta 2010). It can thus be assumed that the poorest of the borrowers have been pushed out of the scheme, the probability of default being negatively lined with income (Giné 2011). According to Kaboski and Townsend (2009), the program has led to an increase in short-term credit, consumption and income growth but has slowed growth of assets for borrowers. Boonperm (2009) finds that most of the effects were concentrated on the poorest quintile of the population, especially on farmers, but that even in that quintile the impact on households spendings and on households income was low – around 3% increase. Therefore, the impacts of the program on poor urban communities are unclear.

Another program with a microcredit feature was launched in 1992 to tackle the problem of Urban Poors. First called the Urban Community Development Office, it eventually led to the Community Organizations Development Institute (CODI) and the Baan Mankong Program in 2003. It was set up to make loans to organized communities for them to undertake a variety of activities related to housing, land acquisition, infrastructure upgrading and in a fewer extent income generation (Boonyabancha 1999, 2001, 2002) with interest rates ranging from 3% to 8%.Dani and Moser (2008) state that 1 billion bhat was distributed through loans in that way, generating 2 billion bhat. However, only 50% of the loans were repayed by the communities which makes th program non self-sustainable (Boonyabancha, 2005).

Policy intervention

The microcredit program proposed reproduces the main feature of the Village Fund program with some modification added in order to overcome its potential shortcomings. It thus reuses the wide network and knowledge which resulted from the policy. Loans would be distributed by the Fund Committee of every Community, but with stronger rules than for the original scheme. Loans are made according to a 10-people-group-lending scheme. If a group succeeds in repaying its loans for two years, each of the individuals of the group is allowed to individually borrow. During the first two years, every group has to meet on a monthly basis. Giné and Karlan (2010) have shown that monthly meetings and repayment requirements led to significantly more repayment than the traditional weekly

meeting/repayment of the Grameen Bank scheme. Moreover, given the small size of Urban Poor Communities, it is assumed that social links between group members will be strong enough to provide a strong enough dynamic incentive to repay.

Individuals who borrow are not required to start a business. The author supports Spandana's view reported in Banerjee et ali. (2009) that loans are fungible and may be used for allocations other than business which may benefit the household. However, to be eligible: (i) 80% of the borrowers in the group must own their house, but not own the land on which they reside; (ii) each borrower must be aged 18 to 59; (iii) he must have been residing in the area for more than 2 years – the condition to be a member of a Village Fund. Furthermore, two types of loans are offered: (i) 7,500THB and (ii) 15,000THB. Each loan is lend with a 1,5% monthly interest rate ARP. This results in a 18% yearly interest rate, more than twice the average interest rate of the original Village Fund Program. This choice is justified by the necessity to reduce the ex-ante or ex-post moral hazards that seem to have arouse in the original scheme when applied to Urban environments as much as to provide incentives for wealthier households not to borrow. Each loan as a one year term. High interest rates and low loans are deemed to be necessary in order to attract the primary target households of the policy: (i) households living below the absolute poverty line of 1368THB/month income in the case of the 7,500THB loan and (ii) households with income ranging from 1369THB/month income to 3000 THB/month income in the case of the 15,000THB loan. No training on the need to repay is provided, but a business training is offered through the channel of the Fund Committee.

Research question

The primary goal of this Proposal is to measure the potential increase in welfare for borrowers. Linked with this concern is the question of the impact of gender on this potential welfare increase as much as the role of microcredit loans in reducing intrahousehold discriminations. Therefore the hypothesis to be tested are the following:

H1: There is an increase in household's welfare
H2: This welfare increase is greater if loans are given to women.
H3: Loans given to women reduce intrahousehold discriminations.

Research design

A Randomized Controlled Experiment involving five groups and a five year period is proposed as a way to measure the outcomes of the policy. Areas that would be involved in the policy are the 250 Urban Fund Communities located in a Informal Urban Settlement zone that have had the poorest repayment rate and/or the lowest proportion of loans granted to households below the 3000THB/month income line. They can be selected using the database of CODI which archives the location of every informal urban settlement in Thailand. Crossing this list with the ratings of the Fund Committees accordingly with their repayment rates and their location enables to do a good first selection. Given the very high proportion of Fund Committees creation, it is assumed that every community, even the poorer, will have its own Committee. The experimental character of the research is assumed to be holding even though households in the areas already experienced the implementation of the Urban and Village Fund Program. It is thus assumed that the poorest households targeted by the policy have been ousted of the scheme since 2001. They thus face a credit constraint similar to the one they faced before 2001.

A baseline survey is done in the areas selected, and households are selected conditional of having a woman aged 18-55 in the household. The stratification process is then done on the model of Banerjee et ali (2009) and Giné et ali (2011). Stratification-cells with 5 areas per cell are created based on the number of households in the area and the minimum distance according to per capita consumption, per capita income and assets, fraction of household with debt, fraction of households

who had a business and the men/woman ratio in the area. Randomization is finally done in every cell with: (i) one control group; (ii) one group with only men being eligible for the loan; (iii) one group with only men being eligible for the loan who are offered business training; (iv) one group with only women being eligible for the loan; (v) one group with only women being eligible for the loan who are offered business training. These groups are then divided into quintiles in the dataset according to individual's income on the model of Giné (2011). Two follow-up survey are then done, the first one year after the implementation of the policy, the second 5 years after.

Models

Two models are offered to answer the research questions. First, a general model of household's welfare estimated by OLS:

$$Y_{it} = \alpha_{it} + \beta_{it}T_{bit} + \delta_{it}X_{it} + \gamma_t d_t + \lambda_{it}\theta_{it} + \varepsilon_{it}$$

X_{it} is a vector of household background variables, T_{it} is a dummy accounting for the treatment – being offered the loan – with b accounting for being offered the business training, d_t is a set of year dummies and θ_{it} accounts for potential area fixed effects. The increase in welfare of a household is measured through a wide range of dependent variables, the first being income and the second being good consumption measured by durable and non-durable goods on the model of Banerjee et ali. (2009). This measure is completed by schooling variables: (i) children attendance to school; (ii) education spendings; (iii) children grades and (iv) education level achievement. The impact of NGO activities, present in many informal settlements in Thailand, needs to be controlled for to avoid any measurement bias. Finally, health outcomes are assessed through: (i) health expenditures and (ii) self-reported illness in order to provide a broad picture of the treatment impacts. Repayment rates are also estimated as a dependent variable.

A second model with interactions is offered to control for heterogeneity and estimate the potential reduction in intrahousehold discriminations:

$$\begin{aligned} Y_{it} = &\alpha_{it} + \beta_{1it}T_{bit} + \beta_{2it}(T_{bit} * Woman_i) + \beta_{3it}(T_{bit} * Biz\_propensity_i) + \\ &\beta_{4it}(T_{bit} * Woman_{it} * Biz\_propensity_{it}) + \beta_{5it}(T_{bit} * Biz\_propensity_i * Biz\_bfr_i) + \\ &\beta_{6it}(T_{bit} * Biz\_propensity_{it} * Biz\_bfr_i * Woman_{it}) + \delta_{it}X_{it} + \gamma_t d_t + \lambda_{it}\theta_{it} + \varepsilon_{it} \end{aligned}$$

The propensity of being an entrepreneur constructed by Banerjee et ali. (2009) is plugged into the model with the $Biz\_propensity_{it}$ variable. $Woman_i$ is a variable accounting for the fact of belonging to one of the two treatment groups. Biz_bfr_i indicates if the individual had a business before. Previous dependent variable are reestimated. Regarding intrahousehold discrimination measurement, food variables as the one used by Duflo (2003) cannot be reused given the current level of development of Thailand. But the structure of food consumption can reveal much more. Again, education is one of the main indicators of a potential reduction in these discriminations. Therefore, all previous education variables are here divided between boys and girls. Additionally, a women empowerment index on the model of the one constructed by Banerjee et ali (2009) is used as a dependent variable. Again repayment rates are plugged in as a dependent variable. A second row of estimation is done subtituting individuals by quintiles in the measurements in order to account for social status heterogeneity on the model of Giné (2011).

Outcomes and shortcomings

The program is assumed to be financially viable without subsidies after year 1 - assuming a

95% repayment rate. The main expected outcomes are an increase in welfare and a reduction in intrahousehold discriminations as a result of the policy. Repayment rates are also expected to be higher then in the original policy case. The main shortcomings of the study may be first the uncertainty surrounding the amount offered as a loan. It may not be attractive enough, even for poor households. Reversely, the interest rate may not be high enough to prevent households earning more than 5000THB/month to apply. Moreover, because of the particularities of the program, results of this study may not produce policy applications for other countries. However, the experiment may provide a relatively good estimation – even though the policy implemented differs slightly – of the main outcome of the Urban and Village Fund Program: helping the poorest of the Urban Thais to escape hardcore poverty.

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