

PAGE



policy analysis on growth and employment

Access to Credit and Women Entrepreneurship: Evidence from Bangladesh

RESEARCH PROPOSAL

Presented to

Partnership for Economic Policy (PEP)

by

M. Jahangir Alam Chowdhury

&

Shabnaz Amin

Tazrina Farha

Abstract:

The study intends to assess the role of an access to credit on the women entrepreneurship development at the household level in Bangladesh. The main objective of the study is to see whether an access to credit, especially microcredit, help adult household women members to start their own businesses and to create employment for other people. The study aims to use the Household Income and Expenditure Survey 2010 (HIES 2010) data set generated by Bangladesh Bureau of Statistics (N=12,240) of the Government of the Peoples Republic of Bangladesh. Considering endogeneity in the assessment of impact of an access to credit on women entrepreneurship, the instrumental variable technique (IV technique) is going to be used for the analysis of data. Besides using HIES 2010 data set, the study also intends to conduct some focus group discussions to capture those socio-cultural as well as economic factors, which questionnaire-based survey fails to capture, that contribute to the financial constraint of women and owning and operating businesses by women in Bangladesh.

Keywords: Access to Credit, Women Entrepreneurship, Bangladesh

First Revised Version

Dhaka
November 05, 2012

A Research Proposal on

Access to Credit and Women Entrepreneurship: Evidence from Bangladesh

1.0 Introduction

Access to capital has been recognized as one of the factors that contribute to the higher level of welfare of households. In developing countries, the formal sector financial institutions exclude poor households through the collateral requirement, credit rationing, preference for high income clients, bureaucratic and lengthy procedure of loan sanction. On the other hand, informal sector financial sources are exploitative in nature (Bhaduri 1983, Rao 1980, Bardhan 1980, Ghosh 1986, Ghate 1992, Flotz 2004, Pertick 2005). Singh, Square, and Strauss (1986) argue that the relaxation of the liquidity constraint of a household contributes to the better allocation of resources, increased production, increased income and higher welfare. Foltz (2004) argues that an easing of credit constraint significantly increases the profitability of agricultural firms. Imperfections in the financial capital markets significantly contribute to the allocative inefficiency in the production of firm household (Chavas et. al. 2005). The welfare effect of easing women's credit constraints on the entire family is more than easing men's credit constraints (Kabeer 2001).

The credit constraint has a gender characteristic (Arenius and Minniti 2005). Women are more likely to be constrained than men in terms of accessing capital for starting new businesses (Fletschner 2008). The legal, social, cultural, and economic conditions that prevail in a society affect the women's demand for and supply of capital. The perception of financial institutions about women as small and inexperienced borrowers put constraint on supply of funds for women (Lycette and white 1989). In an environment of adverse selection, the lack of knowledge about women entrepreneurs contributes to the capital constraints for women in the formal financial sector. After reviewing the available literature, Fletschner (2008) has identified some factors as contributors toward credit constraints for women. These factors are the collateral requirement, the difficulty in finding a guarantor, the requirement of the authorization by the husband or a male relative, financing preference for the activities that are operated by male by the financial institutions, lack of information about the availability of funds, high transaction costs of receiving a loan, risk averse characteristic of women, household work involvement, low literacy rate and lack of confidence

about applying for loans. Using data from a survey applied to 210 couples in rural Paraguay, Fletschner (2008) claims that intrahousehold dynamics are more important for women than men in getting a loan. Women are more likely to be constrained if they belong to a wealthier household and less likely to be constrained if the household own titled land. Moreover, women are less likely to be constrained if they have control over larger share of assets which demonstrate their bargaining power in the household.

Entrepreneurship is considered as one of the factors that help poor people to escape poverty. The results from GEM data indicate that the likelihood of starting a new business is lower for women than men (Minniti 2008). Minniti (2008) identifies that the lack of confidence and optimism as one of the most important causes why women are lagging behind in starting new businesses. She argues that among women those who are confident about their own abilities and have strong positive perception about local environment are more likely to start new businesses. She also argues that generous and support policies may not be sufficient to motivate women to start new businesses unless their confidence level and perceptions are changed. Elam and Terjesen (2008) have tried to see relationships among gender, institutions and cross-national patterns of business start-up for men and women. They argue that institutional measures influence nascent entrepreneurship differently for men and women and the higher number of female business leaders in the society increases the likelihood of starting new businesses by women.

The limitations of the formal financial sector and the informal financial sector in providing financial services, especially credit, to poor and women encouraged various microcredit programs to evolve in Bangladesh. Microcredit is essentially the dispersion of small collateral-free loans to poor people in order to foster income generation and poverty reduction through enhancing self-employment. Since its introduction in Bangladesh in the seventies, the use of micro-credit as a tool for poverty alleviation has become widely accepted through out the world in developing as well as many developed countries. Currently, there are around 21 million members of microfinance institutions in Bangladesh¹. Out of these members, 93% members are women. Although more than 1000 MFIs are providing microcredit in Bangladesh, the contribution by a vast majority of them toward total

¹ Source: Microfinance Regulatory Authority. Available at http://www.mra.gov.bd/images/mra_files/Publications/ngo-mfis%20vol18.pdf

membership and annual loan disbursement is insignificant. Three top MFIs – Grameen Bank, BRAC and ASA - contribute more than seventy percent to total membership, and total loan outstanding. The total amount of loan outstanding in the microfinance sector in Bangladesh was USD 1.7 billion on June 30, 2011. Chowdhury et al (2005) finds that the participation in microcredit programs increases income and consumption of households and thus, reduces poverty of participating households.

The microcredit programs have eased the credit constraint problem of women in Bangladesh. Since the credit constraint problem has been regarded as one of the main causes of not starting new businesses by women in the literature, now the question is whether the availability of microcredit has promoted entrepreneurship among women members of the microcredit programs in Bangladesh. Keeping this in mind, this paper intends to evaluate the role of an access to credit, especially microcredit, in promoting women entrepreneurship development in Bangladesh.

1.1 Determinants of Entrepreneurship: Literature Review

Apart from the access to finance, other factors at the individual, the household, and the local level also contribute to the entrepreneurship development of women (Chowdhury, 2011). Age of an individual influences his or her decision to become an entrepreneur (Lin et al. 2000; Block and Sandner 2009; Haapanen and Tervo 2009). The relationship between age and the decision of an individual to start a business is not linear. In this aspect, Taylor (2004), Block and Sandner (2009), and Haapanen and Tervo (2009) find a negative non-linear relationship between age and the decision of a person to become an entrepreneur. Similarly, Miller (1984) finds a concave relationship between the self-employment decision and age with the highest impact of the age range of 35-44 on the self-employment decision of individuals. In contrast, Yang et al. (2008) do not find age as a significant determinant for nascent entrepreneurship.

Education might influence entrepreneurial decision of individuals in many ways. Education is likely to have a positive influence on the propensity to become self-employed as it contributes to the enhancement of managerial ability of individuals (Calvo and Wellisz 1980). In contrast, education is likely to influence the propensity to become self-employed negatively as it generates better

employment options than self-employment for individuals and thus, increases the opportunity cost of becoming self-employed (van der Sluis et al 2005). The probability of starting a business has a gender dimension. Women are less likely to be self-employed and more likely to exit self-employment compared to men (Lin et al. 2000; Demirguc-Kunt et al. 2009). In contrast, Yang et al. (2008) do not find gender as an important determinant of entrepreneurship.

After reviewing some literature on minorities and self-employment in the United Kingdom, Borooah and Hart (1999) express that minorities are discriminated in the labor market. Lofstrom and Wang (2006) and Fertala (2008) find that foreigners are less likely to survive in self-employment. Audretsch et al. (2007) also find that religious minorities, such as Muslims and Christians, in India are likely to become entrepreneurs compared to religious majority Hindus.

Regarding the influence of the number of household members, especially the number of children, on the entrepreneurial decision, the available evidences are mixed (Borjas 1986; Lin et al. 2000; Fairlie 1999; Demirguc-Kunt et al. (2009); Block and Sandner 2009; Haapanen and Tervo 2009). Some argue that more household members absorb more household resources and time which increase the likelihood of the failure of existing businesses and reduce the likelihood of starting new businesses. On the other hand, some argue that more household members indicate the availability of a higher amount of cheap labor supply which in turn increases the likelihood of starting a business and the success in existing businesses. The presence of another earner or more earners in the household helps that household to start a business (Borooah and Hart 1999).

It is expected that the ownership and the size of assets have positive impacts on the entrepreneurial decision of households as assets provide the required start up capital for new enterprises, provide additional capital for existing businesses, and help entrepreneurs to get loans when assets are required to offer as collateral (Paulson and Townsend 2001). Lu and Tao (2010) find the home ownership as an important determinant of the entrepreneurial decision of individuals in China. Bruderl et al. (1998) conclude that a higher amount of capital reduces the likelihood of business failure. However, Millan et al. 2012 assert that the econometric estimation of impacts of assets on the entrepreneurial decision of individuals is difficult due to the endogeneity problem.

An access to finance has been recognized as one of positive determinants of entrepreneurship as it helps potential entrepreneurs to acquire the amount of capital that is required for starting a business. Thus, Bates (1990) states that an access to finance increases the longevity of existing businesses. The credit constraint has a gender characteristic (Arenius and Minniti 2005).

Apart from the above mentioned factors, other factors, like infrastructure, opportunity cost, also contribute to the entrepreneurial decision of individuals. On the basis of the review of the literature, Yu and Stough (2006) assert that closeness to market and business infrastructure contributes to the development of entrepreneurial activities. Chowdhury (2011) asserts that the armed conflict has a negative impact on entrepreneurship.

1.2 Impact of an Access to Credit on Entrepreneurship: A Brief Review of Randomized Experimental Studies

Some randomized experimental studies, which are popularly known as “randomized control trials (RCT)”, have been conducted to examine the role of an access to credit on entrepreneurship and entrepreneurial performance in different countries (de Mel et al. 2008; Karlan and Zinman 2009; Fafchamps et al. 2011). de Mel et al. (2008) conducts a randomized experimental study in Sri Lanka to examine the impact of an access to additional funds on existing microenterprises of men and women. They find that microenterprises earn on an average 5 to 6 percent return on capital per month in Sri Lanka. They also find a gender difference in the return on capital and also in the use of additional funds available from the experiment. It is evident from the findings of the study that men earn much higher return than women and men use available additional funds on working capital and women on equipments. Karlan and Zinman (2009) examines the impact of high interest rate consumer loans on borrowers in South Africa. They observe that marginal loans incurred net benefits significantly to borrowers on different types of outcomes. They also observe that loans were profitable to some borrowers. Fafchamps et al. (2011) gave randomly cash and in-kind grants to owners of microenterprises in Ghana. They find large and positive treatment effects for microenterprises participated in the experiment and also find a gender difference in profits of microenterprises which received cash and in-kind grants from the experiment. In-kind grants are more useful for women owned microenterprises which were profitable initially and on the other

hand, in-kind grants contributed to an average increase in profit for all men owned microenterprises. Cash grants did not provide any robust results for men and female owned microenterprises.

Although randomized experimental studies can overcome many short comings of non-experimental studies, Ravallion (2009) identifies some limitations of randomized experimental studies. He asserts that “randomization is ... better suited to relatively simple projects, with easily identified “participants” and non-participants”. He also asserts that “interferences are muddied by the presence of some latent factor-unobserved by the evaluator but known to the participant-that influences the individual-specific impact of the program in question”. Randomized experimental studies may fail to capture the behaviour of participants of large scale long-term development interventions as there is a possibility that the behaviour of participants of relatively short-term randomized experimental trials is influenced by their understanding that they are participating in a randomized experimental studies.

2.0 Main Research Questions and Core Research Objectives

2.1 Main Research Hypotheses

On the basis of the discussion in section 1, the study has formulated the following hypothesis to test:

- ✓ That an access to credit contributes to the development of women entrepreneurship;

As per the above-mentioned research hypothesis, the objective of the study is to seek the answer to the following research question.

- ✓ Does an access to microcredit contribute to the development of women entrepreneurship?

3.0 Scientific Contribution of the Research

Chowdhury (2008) examined the impact of the participation of women in microfinance institutions on women entrepreneurship in Bangladesh. The results of the study indicate that the participation in

the microcredit programs does not promote women entrepreneurship. When this finding was communicated to relevant microfinance officials they were very critical about it as the sample size was small ($N=920$) and the survey of the study was conducted in only one of the main seventeen districts in the country. Considering these criticism of Chowdhury (2008), the current study intends to look at the same issue on a larger canvas. The present study is going to use a data set which is relatively very large ($N=12,240$) and covers the whole country. Despite the existence of Chowdhury (2008), there is a research gap in the literature on the issue of the role of an access to credit on women entrepreneurship development using a data set which covers all districts in Bangladesh. The present research is going to close this gap in the literature. The present study is going to use the qualitative as well as the quantitative (Q^2) approaches to achieve the objective of the study.

4.0 Policy Relevance

After the success of Grameen Bank in Bangladesh, international financial institutions (like the world bank, Asian Development Bank, African Development Bank, etc.) and international donor agencies (like USAID, CIDA, NORAD, etc.) are prescribing microcredit for poverty reduction through enhancing women entrepreneurship to developing countries. In microcredit summit 2006 (held in Halifax, Canada from November 12-15, 2006) international donor agencies and microfinance institutions announced a target of reaching around 200 million poor families (an additional coverage of around 90 million families in 10 years) with microcredit by the year 2015.

Against these backdrops, this study has tremendous policy relevance to the international financial institutions (like the World Bank), International Donor Agencies (like CIDA), the local microfinance institutions (like *Palli Karma Shahayak Foundation* (PKSF) and SME Foundation), governments of developing countries, the United Nations and microfinance institutions. This study will enable the stakeholders to understand the capacity of microcredit in terms of enhancing women entrepreneurship development at the household level.

In Bangladesh, we will communicate our results to the officials of PKSF, the largest wholesale microfinance institution in Bangladesh, and SME (Small and Medium Enterprises) foundation as these two organizations are trying to enhance women entrepreneurship in Bangladesh through

microfinance. In the government, we will disseminate our results to the officials in three ministries: Ministry of Finance, Ministry of Planning, and Ministry of Women Affairs. These three ministries deal with the issues related to women in Bangladesh. The Ministry of Finance regulates the microfinance sector and allocates funds to projects related to women. The Ministry of Planning does planning for the country. It also sets different development targets related to women in the country. And finally, the Ministry of Women runs different types of programs for betterment of women in the country.

5.0 Methodology

5.1 The Qualitative approach:

Focus group discussions will be conducted as part of the qualitative assessment. Sometimes, survey based quantitative assessments fail to identify many issues that also influence the target variable and a qualitative assessment serves as auxiliary as these types of assessments help to identify the missing pieces of information of quantitative assessments. For example, if the quantitative assessment of the current study finds a similar finding like Chowdhury (2008) that microcredit program participation fails to enhance women entrepreneurship and if it also fails to capture those factors that put constraints on women entrepreneurship development, the intended focus group discussion will enable the current study to identify those constraints on women entrepreneurship. Women members of microfinance institutions, officials of microfinance institutions, and local knowledgeable persons will be invited to participate in focus group discussions.

5.2 The Quantitative Approach:

We use the multivariate analysis technique to assess the impact of an access to microcredit on the outcome variable, women entrepreneurship. The main advantage of this technique, compared to the simple comparison method, is that it allows the study to control for those household and village level variables that influence the outcome. Given the extensive geographic coverage of microcredit in Bangladesh, it is difficult to find a perfect 'control' group that we could use to estimate the impact of microcredit program participation on outcome variables.

A household's decision to attend a microcredit program is likely to be related to the outcome of interest, which is women entrepreneurship, in this study. Given the outcome *ENTRE* for household adult women member, we estimate the following equation:

$$ENTRE_i = \beta_i X_i + \gamma MC + u_i \quad (1)$$

where *ENTRE* is the entrepreneurial status of a household adult women member, *X* is a vector of some control variables that are assumed to be exogenous (for example, education of the household women member, the existence of the electricity in the household, etc.), and *MC* is microcredit program participation while *u* is the error term.

The equation given below defines participation in a microfinance program:

$$MC_i = \delta_j Z_j + v_i \quad (2)$$

where *Z* represents some control variables and *v* represents the error term of the model. While we estimate the impact of microcredit program participation using the equation (1), we assume that the error terms of equations (1) and (2), i.e., *u* and *v*, are not correlated. But these two error terms become correlated if the factors that influence the microcredit program participation decision (*MC*) also determine the outcome variable, i.e., *ENTRE* in equation (1). In such a situation, the estimation of equation (1) yields a biased estimate of the parameter of interest γ .

Keeping this in mind, we are planning to use the instrumental variable (IV) technique. The IV technique requires at least one variable that is likely to affect the decision to participate in the microcredit program to be incorporated into the model that determines microcredit program participation decision but is unlikely to affect directly the outcome of interest, i.e., women entrepreneurship (Heckman, 1997). We therefore rewrite the equation (2) under the instrumental variable approach as follows:

$$MC_i = \delta_j Z_j + \lambda LC_i + v_i \quad (3)$$

where *LC* is the instrumental variable. In order to obtain consistent estimates, we assume that $\lambda \neq 0$ and that *LC* is uncorrelated with *u*. In Bangladesh, the only criteria that is followed for accepting a

women as a member of a microfinance institution is that the land ownership of the household should not be more than 50 decimal. This section criterion could be a good instrument.

In addition to the IV technique, we compared program members (who participate in microcredit programs) and comparison members (who are eligible to participate, but do not participate in microfinance programs). The difference in the means and the distribution of entrepreneurship between program and comparison members captures the impact of the participation in the microcredit program on entrepreneurial status of women in Bangladesh.

Considering the potential endogeneity in the participation of households in microcredit programs, we assess the impact of microcredit program participation on entrepreneurship using a two-stage regression analysis. The first stage regression (equation 3) models the participation decision of women in microcredit programs (MC). This model includes X in the right hand side of the model as control variables that influence the participation decision of households along with Z and LC . We will predict participation in microcredit programs after running the first stage regression.

In the second stage regression, we will use the predicted value ($PENTRE$) of the participation of an adult woman in a microcredit program from the first stage regression as a regressor along with other control variables related to other individual and household level characteristics. Since the dependent variable in the second stage regression, that is, the entrepreneurial status of the microcredit program women member, has binary data characteristics, we are planning to apply Probit regression technique to estimate the impact of an access to credit on the entrepreneurial status of women.

Three types of specifications of the access to credit (MC in equation 1) have been formulated to assess the impact of these on women entrepreneurship.

$$ENTRE_{ij} = \beta ACCESS_j + \sum \phi X_{ij} + \sum \delta Z_j + u_i \quad (4)$$

$$ENTRE_{ij} = \eta LOAN_{ij} + \omega SLOAN_{ij} + \sum \phi X_{ij} + \sum \delta Z_j + u_i \quad (5)$$

$$ENTRE_{ij} = \sum \theta LS_{ik} + \sum \phi X_{ij} + \sum \delta Z_j + u_i \quad (6)$$

where $ENTRE_{ij}$ is the outcome variable on which we want to measure; on the right hand side of models 1 to 3, X and Z are vectors of some control variables at household and district levels that are assumed to be exogenous (for example, education of the household head, the existence of electricity in the household, etc.). The dependent variable (ENTRE) in the model is the entrepreneurial status of an adult female member of the household i in the district j . The entrepreneurial status of a household adult female member has been determined on the basis of the ownership of a business by that member. It is a dummy variable; ENTRE has been assigned 1 if a household female adult member owns at least one business and 0 otherwise. Due to the binary characteristic of the dependent variable, the probit regression technique is going to be applied to determine the role of an access to credit on the entrepreneurial status of household adult female members.

In equation 4, ACCESS is dummy variable which takes 1 if the household has an access to microcredit loans and 0 otherwise. In equation 5, LOAN is the total amount of microcredit loan a women has taken from microfinance institutions. A quadratic term of LOAN (SLOAN) has been incorporated to understand the non-linearity in the relationship between the microcredit loan and the women entrepreneurship. In equation 6, microcredit loans from different microfinance sources (LS) have been included to examine contributions of these sources to women entrepreneurship separately. These sources are: Grameen Bank (LSG), BRAC (LSB), ASA (LSA) and other microfinance institutions (LSO). The parameters β , φ_k , δ_k , η , ϑ and ϖ are required to be estimated; and μ_{ij} represents unmeasured other characteristics that also determine the outcome.

6.0 Data Requirement and Sources

6.1 Cross Sectional Data

The study intends to use the Household Income and Expenditure Survey data set 2010 (HIES 2010) which has been generated by Bangladesh Bureau of Statistics (BBS), a department of the Government of the Peoples Republic of Bangladesh. A two stage random sampling technique was followed in designing the sample of HIES 2010. The framework of Integrated Multipurpose Sample (IMPS) design which was developed on the basis of the Population and Housing Census 2001 was

used in the sample design. There were 1000 Primary Sampling Units (PSUs) covering the whole country in the IMPS design. In the IMPS design 640 PSUs belonged to the rural areas and the remaining 340 PSUs came from the urban areas. Each PSU consisted of around 200 households. In the first stage of the random sampling, 612 PSUs were selected out of 1000 PSUs. These 612 PSUs were selected from 16 strata; 6 strata from the rural areas, 6 from the municipality areas and 4 from semi-municipality areas (SMA). In the second stage, 20 households were randomly selected from each of the selected 612 PSUs. In total, HIES 2010 collected data from 12,240 households ($N=12,240$). Table 1 presents the administrative division wise distribution of households in HIES 2010. This data set contains extensive information on the employment status of all members 12,240 households. Besides having household demographic information, this data set contains detailed information on occupational status of household members, income, consumption, assets and liabilities of households.

6.2 Panel Data

Palli Karma Sahayak Foundation (PKSF) is the largest wholesale microfinance institution in Bangladesh. They have been monitoring the impact of microcredit on poverty of participating households since 1995. The survey covers around 2500 households from all major districts in the country. It has already completed four-round data collection (1997-98, 1998-99, 1999-2000 & 2004-05). We are trying to capture this panel data set. In the case of the availability of this panel data set, we will go for panel data estimations of the impact of an access to credit on women entrepreneurship in Bangladesh. This data set is more comprehensive than HIES 2010 in terms of the availability of data on business ownership and other important information related business ownership of all adult household members. Therefore, this panel data set will also enable us to assess the impact of an access to credit on entrepreneurship performance of women in Bangladesh

7.0 Dissemination Strategy

The dissemination plan includes the following strategies:

- ✓ publication of working papers on the website of the Center for Microfinance and Development at the University of Dhaka;

- ✓ presentation of results at seminars and workshops;
- ✓ publication of articles in internationally reputed journals;
- ✓ results will be communicated to the concerned policy makers in microfinance institutions, government organizations, and international donor agencies through inviting them to the seminars and workshops and also sending them working papers and published articles.

8.0 Short List of Key References

Arenius, P. & Minniti, M. (2005). Perceptual Variables and Nascent Entrepreneurship. *Small Business Economics*, 24(3), 233-247.

Audretsch, D.B., Boente, W. and Tamvada, J.P. (2007). Religion and Entrepreneurship, CEPR Discussion Paper 6378, Center for Economic Policy Research.

Bardhan, P. K. (1980); Interlocking Factor Markets and Agrarian Development: a review of issues; *Oxford Economic Papers*, Vol. 23, pp. 82-98.

Bates, T. (1990). Entrepreneur human capital inputs and small business longevity. *Review of Economics and Statistics*, 72(4), 551-559.

Bhaduri, A. (1977); On the Formation of Usurious Interest Rates in Backward Agriculture, in *Money and Monetary Policy in Less Developed Countries*, eds. Warren L. Coats, Jr. and Deena R. Khatkhate; Oxford: Pergamon Press.

Block, J., & Sandner, P. (2009). Necessity and opportunity entrepreneurs and their duration in self-employment: Evidence from German Micro Data. *Journal of Industry, Competition and Trade*, 9(2), 117-137.

Borjas, G. J. (1986). The Self-Employment Experience of Immigrants. *Journal of Human Resources*, 21(4), 485-506.

Borooah, V.K., & Hart, M. (1999). Factors Affecting Self-Employment among Indian and Black Caribbean Men in Britain. *Small Business Economics*, 13, 111-129.

Bruderl, J., & Preisendorfer, P. (1998). Network support and the success of newly founded businesses. *Small Business Economics*, 10(3), 213-225.

Calvo, G., & Wellisz, S. (1980). Technology, Entrepreneurship and Firm Size. *Quarterly Journal of Economics*, 95(4), 663-78.

Chavas, J.P., R. Petrie, and M. Roth (2005), Farm Household Production Efficiency: Evidence from the Gambia, *American Journal of Agricultural Economics*, 87(1), pp. 173-86).

Chowdhury, M. J. A. (2008). Does the Participation in the Microcredit Programs Contribute to the Development of Women Entrepreneurship? Experience from Bangladesh, paper presented at a workshop organized by the World Institute for Development Economics Research (WIDER) of the United Nations University, held in Helsinki, Finland, August 21 – 23, 2008.

Chowdhury, M. J. A. 2011. The Determinants of the Entrepreneurship in a Conflict Region: Evidence from the Chittagong Hill Tracts in Bangladesh, *Journal of Small Business and Entrepreneurship*, 24(2), 265-281.

Chowdhury, M. J. A., D. Ghosh and R. E. Wright. 2005. The Impact of Micro-credit on Poverty: Evidence from Bangladesh, *Progress in Development studies* 5(4): 1-12.

Demirguc-Kunt, A., Klapper, L. F. & Panos, G. A. (2009). Entrepreneurship in Postconflict Transition : The Role of Informality and access to finance. Policy Research Working Paper 4935, The World Bank.

Elam, A., and S. Terjesen (2008), Gender, Institutions and Cross-National Patterns of Business Start-Up for Men and Women, Paper Presented at UNU-WIDER Workshop on Entrepreneurship and Economic Development, World Institute of Development Economics Research (WIDER), United Nations University, Helsinki, Finland.

Fairlie, R. W. (1999). The Absence of the African-American Owned Business: An Analysis of the Dynamics of Self-Employment, *Journal of Labor Economics*, 17(1), 80-108.

Fertala, N. (2008). The shadow of death: Do regional differences matter for firm survival across native and immigrant entrepreneurs? *Empirica*, 35(1), 59-80.

Fletschner, D. (2008). Rural Women's Access to Credit: Market Imperfections and Intrahousehold Dynamics. *World Development*, 37(3), 618-631.

Flotz, J. (2004), Credit Market Access and Profitability in Tunisia Agriculture, *Agricultural Economics*, 30, pp. 229-40.

Ghate, P. (1992); *Informal Finance: Some Findings from Asia*; Manila: Oxford University Press for the Asian Development Bank.

Ghosh, D. (1986); *Monetary Dualism in Developing Countries*; *Economies ET. Societes*, pp. 19-30.

Goetz, A.M., and R. Sen Gupta (1996), Who Takes Credit? Gender, Power, and Control Over Loan Use in Rural Credit Programs in Bangladesh, *World Development*, 24(1), pp. 45-63.

Haapanen, M. & Tervo, H. (2009). Self-employment duration in urban and rural locations. *Applied Economics*, 41(19), 2449-2461.

Kabeer, N. (2001), Conflict Over Credit: Re-Evaluating the Empower Potential of Loans to Women in Rural Bangladesh, *World Development*, 29(1), pp. 63-84.

- Lin, Z., Picot, G., & Compton, J. (2000), The Entry and Exit Dynamics of Self-Employment in Canada. *Small Business Economics*, 15(2), 105-125.
- Lofstrom M. & Wang, C. (2006). Hispanic self-employment: A dynamic analysis of business ownership. IZA Discussion Paper No. 2101.
- Lu, J. & Tao, Z. (2010), Determinants of Entrepreneurial Activities in China. *Journal of Business Venturing*, 25(3), 261-273.
- Lycette, M., and K. White (1989), Improving Women's Access to Credit in Latin America and the Caribbean: Policy and Project Recommendations. In M. Berger and M. Buvinic (eds.) *Women's Ventures: Assistance to the Informal Sector in Latin America*, Kumarian Press, Connecticut: West Hartford.
- Millan, J. M., Congregado, E. & Roman, C. (2012). Determinants of self-employment survival in Europe. *Small Business Economics*, 38(2), 231-258 .
- Miller R. A. (1984). Job Matching and Occupational Choice. *Journal of Political Economy*. 92(6), 1086-1120.
- Minniti, M. (2008), Female entrepreneurship and Economic Development, Paper Presented at UNU-WIDER Workshop on Entrepreneurship and Economic Development, World Institute of Development Economics Research (WIDER), United Nations University, Helsinki, Finland.
- Paulson, A. L. & Townsend, R. (2004). Entrepreneurship and Financial Constraints in Thailand. *Journal of Corporate Finance*, 10(2), 229-262.
- Petrick, M. (2005), Empirical Measurement of Credit Rationing in Agriculture: A Methodological Survey, *Agricultural Economics*, 33, pp. 191-203.
- Ravallion, M. (2009). Should the Randomistas Rule?, *The Economists' Voice*, 6(2), 1-5.
- Rao, J.M. (1980); *Interest Rates in Backward Agriculture: Notes and Comments*; Cambridge Journal of Economics; Vol. 4, pp. 159-167.
- Singh, I., L. Square, and J. Strauss (1986), *Agricultural Household Models: Extensions, applications, and policy*, John Hopkins University Press, Baltimore, MD.
- Taylor, M. P. (2004). Self-employment in Britain: When, who and why? *Swedish Economic Policy Review*, 11(2), 139-173.
- van der Sluis, J., van Praag, M. & Vijverberg, W. (2005). Entrepreneurship Selection and Performance: A Meta-analysis of the Impact of Education in Less Developed Countries. *World Bank Economic Review*, 19(2), 225-261.

Yang X., Cheng, Y. & Gao, J. (2008). The Changing Motives for Nascent Entrepreneurship in China: Using Global Entrepreneurship Monitor Data. Communications 2008, ICC '08, IEEE International Conference, 5474-5478.

Yu, J. & Stough, R. R. (2006). The determinants of entrepreneurship development in China. International Journal of Management & Enterprise Development, 3(1&2), 30-52.

9.0 Prior Training and Experience of Team Members in the Issues and Techniques Involved

Dr. M. Jahangir Alam Chowdhury, the team leader, has been trained as an economist and has in the past few years focussed primarily on research related to microfinance and poverty in Bangladesh. He completed his PhD research in microfinance in the United Kingdom at the University of Stirling under a Commonwealth Scholarship. His current research interest areas are entrepreneurship and natural disaster loss recovery at the household level. He has received an advanced training on poverty and inequality analysis from the World Bank Institute and Bangladesh Institute of development Studies. Dr. Chowdhury teaches Statistics, Development Economics and Finance, and Microfinance at the Master's level in the University of Dhaka in Bangladesh.

Ms. Shabnaz Amin is Assistant Professor in the Department of Finance, University of Dhaka. Before joining the Department of Finance, she had served as a Research Associate to one of the leading civil society think tanks of Bangladesh, Center for Policy Dialogue (CPD). She was appointed as a Credit Analyst to Citibank N.A. Bangladesh and Standard Chartered Bank limited. Her research interests are entrepreneurship, capital market, corporate finance and corporate governance. She did her MBA in International Finance at the International Business School of Brandeis University (USA) under a Fulbright Fellowship.

Ms. Tazrina Farah is Lecturer in the Department of Finance at the University of Dhaka. Her research interests include Credit Risk Analysis, SME Development and Entrepreneurship. She successfully participated in University based talent hunt competitions like "Battle of Minds" and "HSBC Young Entrepreneurship Awards". She took her

Masters degree specialized in Finance from the Department of Finance, University of Dhaka.

10.0 Expected Capacity Building for Researchers and Their Institutions

The Center for Microfinance and Development (CMD) is a newly established research center for conducting researches on microfinance, poverty, entrepreneurship and other development issues in Bangladesh. Dr. M. Jahangir Alam Chowdhury is the Executive Director of the centre. CMD intends to conduct training programs for microfinance and development practitioners and young social science researchers. A number of postgraduate students from Finance and Economics departments of different universities in Bangladesh will be drawn into this project and they will be benefited from an exposure to different stages of economic research ranging from the data analysis to the report writing. These practical research exposures will enhance their research capabilities as well as research capabilities of their educational institutions. The capacity building of the research team is given below:

Team Members	Capacity Development
Dr. M. Jahangir Alam Chowdhury	<ul style="list-style-type: none"> ✓ New knowledge on the impact of an access to credit on the women entrepreneurship in Bangladesh; ✓ Using qualitative techniques besides quantitative techniques in economic research.
Ms. Shabnaz Amin	<ul style="list-style-type: none"> ✓ New knowledge on the impact of an access to credit on the women entrepreneurship in Bangladesh; ✓ Management of large datasets; ✓ Knowledge on the econometric techniques related to the analysis of large household survey data sets; ✓ Using qualitative techniques in economic research. ✓ Conducting research projects.
Ms. Tazrina Farha	<ul style="list-style-type: none"> ✓ New knowledge on the impact of an access to credit on the women entrepreneurship in Bangladesh; ✓ Management of large datasets; ✓ Knowledge on the econometric techniques related to the analysis of these household survey data sets; ✓ Using qualitative techniques in economic research. ✓ Use of STATA software; ✓ Conducting research projects; ✓ Writing a research report.

11.0 Any Ethical, Social, Gender or Environmental Issues or Risks Which Should be Noted

The study will look into the social and gender issues of entrepreneurship in this research. There are no ethical and environmental issues and risks, which should be noted, in this research.

12.0 Other Documents:

None

Table 1
Distribution of sample households in the HIES 2010

Locality within division	Administrative Division							Total
	Barisal	Chittagong	Dhaka	Khulna	Rajshahi	Rangpur	Sylhet	
Rural	680	1420	2100	1100	980	900	660	7840
Urban	300	780	1440	700	600	380	200	4400
Total	980	2200	3540	1800	1580	1280	860	12240

Source: BBS (2007)