EFFECTIVENESS OF MICRO-CREDIT FOR POVERTY ALLEVIATION UNDER AGRICULTURAL INTENSIFICATION PROJECTS IN BANGLADESH

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DOCTOR OF PHILOSOPHY
UNIVERSITI PUTRA MALAYSIA

2006
EFFECTIVENESS OF MICRO-CREDIT FOR POVERTY ALLEVIATION UNDER AGRICULTURAL INTENSIFICATION PROJECTS IN BANGLADESH

By

KAZI TANVIR MAHMUD

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirement for the Degree of Doctor of Philosophy

October 2006
Dedicated

To

My Beloved Father and Mother,
My Beloved Wife Tithy,
My Two Aunties Misty and Mony,
All the Poor People in Bangladesh.
The rural poor generally have low income to sustain their livelihood. They do not have the capacity to start any income generating activities due to lack of financial capital. They also have very limited access to the formal financial institutions because of the inability to fulfill the collateral requirements. Thus, in order to widen the rural poor’s access to finance, microcredit programs have been launched which require no collateral to obtain loans. The major goal of the microcredit program is to provide financial capital to the rural poor in order to engage them in income generating activities for alleviating their poverty. The main objective of this study is to assess the effectiveness of microcredit program in alleviating poverty among rural borrowers in Bangladesh.

Primary data were collected from three local Non-Governmental Organizations (NGOs) and a government agricultural project. Eight hundred borrowers were
selected through simple random sampling technique. Data were collected from those borrowers who took loan for the first time in 2003 and were involved in agricultural activities.

A conditional demand equation on household income, household expenditure and borrower’s saving was estimated using the Weighted Two Stage Least Square (WTSLS) technique. Logit model was used to examine whether the microcredit program benefited the borrowers.

Household income was found to increase significantly due to the influence of loaned money. The study results also showed that the amount of credit taken by the borrowers had positive influence on the households’ food expenditure and borrower’s saving. Nevertheless, microcredit was found to have no influence on the households’ total expenditure due to the fact that the majority of the borrowers were poor and they could not even fulfill their basic needs like food. Thus, they had to spend more on food items as compared to other non-food items.

Results of the logit analysis revealed that six variables had significant and positive influence on the binary dependent variable ‘Borrower well-being’. The significant variables were educational level, per day time spending on income generating activities by the family members, number of training received, expenditure on health care and share of food expenditure to total expenditure and mobility of the borrowers. Increase level of these six variables would provide higher probability for improving their well-being.
Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai
memenuhi keperluan untuk ijazah Doctor Falsafah

KEBERKESANAN MIKRO-KREDIT DALAM PEMBASMIAN
KEMISKINAN DIBAWAH PROJEK INTENSIFIKASI PERTANIAN DI
BANGLADESH

Oleh

KAZI TANVIR MAHMUD

Oktober 2006

Pengerusi : Profesor Madya Zainal Abidin Mohamed , PhD

Fakulti : Pertanian

Penduduk Luar Bandar pada amnya berpendapatan rendah dalam meneruskan
kehidupan mereka. Mereka tiada keupayaan untuk memulakan sebarang aktiviti yang
menambahkan pendapatan kerana ketiadaan modal kewangan. Mereka juga terhad
dalam pencapaian kepada institusi kewangan formal kerana ketidakupayaan
memenuhi keperluan cagaran bank. Oleh kerana itu, program pinjaman mikrokredit
yang tidak memerlukan cagar mereka telah dilancarkan demi meluaskan peluang
penduduk luar bandar ini mendapatkan modal. Tujuan utama program mikrokredit
ialah menyediakan modal untuk mereka menjalankan aktiviti menambahkan
pendapatan supaya tahap kemiskinan mereka dapat dikurangkan. Objektif utama
kajian ini ialah untuk mengkaji keberkesanan program mikrokredit dalam
pembasmian kemiskinan di antara peminjam luar bandar di Bangladesh.
Data primer dipungut dari tiga badan bukan kerajaan (NGO) dan dari projek pertanian kerajaan. Untuk kajian ini, 800 peminjam dipilih dari empat daerah tersebut melalui kaedah persampelan rawak berstrata. Data dipungut dari peminjam yang mengambil pinjaman untuk pertama kali dalam 2003 dan terlibat dalam aktiviti pertanian.

Kajian ini menganggar persamaan permintaan kondisional yang bergantung kepada beberapa keadaan seperti pendapatan isirumah, perbelanjaan isirumah dan simpanan peminjam dengan menggunakan teknik ‘Dua Tahap Wajaran Kuasa Dua Terkecil (Weighted Two Stage Least Square). Model logit digunakan untuk menilai sama ada program mikrokredit memberi faedah atau sebaliknya kepada peminjam.

Kajian ini mendapati pendapatan isirumah meningkat hasil dari pinjaman yang diberikan. Keputusan kajian menunjukkan jumlah kredit yang diperolehi oleh peminjam secara positifnya mempengaruhi perbelanjaan makanan oleh isirumah dan simpanan peminjam. Tetapi, mikrokredit didapati tidak mempengaruhi perbelanjaan keseluruhan isirumah disebabkan oleh kebanyakan peminjam terlalu miskin dan mereka masih lagi tidak dapat memenuhi keperluan asas seperti makanan. Oleh itu mereka terpaksa, mereka membelanjakan lebih terhadap barangan makanan berbanding dengan barangan bukan makanan.

Keputusan dari analisis logit menunjukkan bahawa terdapat enam pembolehubah yang signifikan dan berhubung secara positif terhadap pembolehubah bersandar binary ‘taraf-hidup peminjam’. Pembolehubah yang signifikan adalah tahap pendidikan, pendapatan sehari, bilangan latihan yang diteima, perbelanjaan untuk
kesihatan dan perbelanjaan makanan dari perbelanjaan keseluruhan dan juga mobiliti peminja. Peningkatan tahap enam pembolehubah ini akan menyebabkan peningkatan kebarangkalian dalam peningkatan taraf hidup.
ACKNOWLEDGEMENTS

I would like to express my deepest sense of gratitude and sincere appreciation to the chairman of my thesis supervisory committee, Associate Professor Dr. Zainal Abidin Mohamed, for his critical assessment, helpful suggestion, guidance and moral support in preparing this thesis. His insight and practical skill have left a distinct mark on this work.

I would also like to express my deepest gratitude and sincere appreciation to my honorable supervisory committee member, Professor Dr. Mad. Nasir Shamsudin for his valuable comments, suggestions and encouragement to complete this research work. I express my profound appreciations and heartfelt gratitude to my honorable supervisory committee member, Associate Professor Dr. Mohd Mansor Ismail for his advice and constant guidance in conducting the research work.

My appreciation is extended to all the respondents of ADIP, BRAC, Proshika and PMUK for their kind cooperation in providing relevant information and valuable time during data collection. Otherwise, it would have not been possible to carry out this research. I am also thankful to the concerned officers, staffs, and field supervisors of ADIP, BRAC, Proshika and PMUK for their physical and moral support during the time of conducting research.

I feel proud to express my heartfelt gratitude to my beloved mother for her constant inspiration. I would like to express my deepest sense of gratitude and sincere appreciation to Babykaka for her moral support to carry out this research work.
My special thanks goes to all of my friends and former colleagues of ADIP for their cooperation in conducting this research work. I am also thankful to all concerned persons those who were involved in data entry and editing process of this study.

Finally, my sincere appreciation goes to my wife Tithy, my sister Juni, my brother in law Mithu for their constant encouragement to complete this research work.
I certify that an Examination Committee met on 17th October, 2006 to conduct the final examination of Kazi Tanvir Mahmud on his Doctor of Philosophy thesis entitled “Effectiveness of Micro-credit For Poverty Alleviation Under Agricultural Intensification Projects in Bangladesh” in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the candidate be awarded the relevant degree. Members of the Examination Committee are as follows:

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Date:16-01-2007
DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations, which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UPM or other institutions.

______________________________
KAZI TANVIR MAHMUD

Date: 30-11-2006
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<td>RDRS</td>
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<td>WTSLs</td>
<td>Weighted Two Stage Least Square</td>
</tr>
</tbody>
</table>