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PERFORMANCE MEASUREMENT OF
SOUTH ASIAN MICROFINANCE
INSTITUTIONS

A THESIS PRESENTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF
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IN
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Uzma Bibi Shahzad
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Abstract

This thesis studies microfinance institutions (MFIs), which are a special type of financial institution that pursue the dual objectives of outreach and financial sustainability. The study evaluates the social and financial efficiency of a panel data set of 372 MFIs in Bangladesh, India, Nepal, Pakistan and Sri Lanka, covering the period 1998 to 2013, using performance ratios and other techniques.

The thesis introduces two new ways of measuring the social objectives of MFIs. The comparative results show that these new outreach indicators provide a better explanation of social performance of MFIs than those commonly used in the literature. We employ these new measures alongside financial sustainability to assess the performance of different types of MFIs in achieving their dual objectives. The results show that non-regulated and profit-oriented MFIs perform relatively well in terms of the dual objectives but face higher operating expenses, creating conflict between outreach and financial sustainability.

In addition, the social and financial efficiency of MFIs are evaluated using data envelopment analysis (DEA) and stochastic frontier analysis (SFA). For DEA, to obtain more robust results, a double bootstrap approach is used and we find that the financial efficiency of these institutions appears stronger than their social efficiency. Cost efficiency estimates show that, on average, South Asian MFIs are operating with the same financial and social efficiency scores, while institutional and country differences matter more for financial efficiency than for social efficiency. The results also suggest that, on average, MFIs exhibit increasing returns to scale in financial sustainability but not when
performance relative to the social objectives is measured. Similarly, improved technological progress is more evident for financial than social efficiency.

The impact of women in various roles and corporate governance on the efficiency of MFIs is investigated for the first time. The presence of female loan officers is found to have a positive effect while female board members and female borrowers show a significant negative impact on financial and social efficiency of MFIs. We find a strong positive association between the governance of an MFI and its financial and social efficiency. We find similar effects of governance and gender roles on efficiency using both the DEA and SFA approaches.
Dedicated to my mother (AMMI GEE)
and my husband (ABU AWLADI)
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List of Abbreviations

MFIs – Microfinance institutions
DEA – Data envelopment analysis
SFA – Stochastic frontier analysis
PFBs – Percentage of female borrowers
PFOs – Percentage of female loan officers
PFMs – Percentage of female board members
RQ – Research question
PAR 30 – Portfolio at risk greater than 30 days
OER – Operating expense ratio
CAR – Capital to assets ratio
GNI – Gross national income
LNAB – Logarithmic value of number of active borrowers of MFIs
LAST – Logarithmic value of total assets of MFIs
DMATURE - Dummy of mature MFIs
GDP – Gross domestic products
ROA – Returns on assets
OSS – Operational self-sufficiency
ALBPBG – Average loan balance per borrowers divided by gross national income
GLS – Generalised least square model
TE – Technical efficiency
SE – Scale efficiency
BCC - Banker, Charnes and Cooper
CCR - Charnes, Cooper and Rhodes
CRS – Constant returns to scale
VRS – Variable returns to scale
COC – Cost of physical capital
CPL – Cost of labour
COB – Cost of borrowings
RTS – Returns to scale
DMUs – Decision making units
FEAR – Frontier efficiency analysis with R
MIX market – Microfinance information exchange market
SBM – Slacks based measure
C-GAP – Consultative to Assist the Poor
Translog - Transcendental Logarithmic
MSB - Market share of microfinance borrowers
MSBA - Market share of microfinance borrowers adjusted
MENA – Middle East and North America
i.e. – Id Est (that is)
e.g. – Exempi Gratia (for example)
NGOs - Non-government organizations
SHFs - Shareholder firms
COOPs - Microfinance banks
PPP - Purchasing power parity
SBP - State Bank of Pakistan
SECP - Security and exchange commission of Pakistan
CBOs - Community-based organizations
FISA - Financial Intermediary Societies Act