Microfinance for Entrepreneurial Development

Sustainability and Inclusion in Emerging Markets

Edited by
Douglas Cumming,
Yizhe Dong, Wenxuan Hou, and
Binayak Sen

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Editors

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CHAPTER 1

The End of Imagination? Understanding New Developments in Microfinance

Douglas Cumming, Yizhe Dong, Wenxuan Hou and Binayak Sen

1.1 The State of Promise

Microfinance drew attention to itself beginning the day it was born. From day one, its fate was hotly debated by ever-colliding camps of ardent supporters and staunch critics. These two camps tend to offer two extreme (polarized) views on microfinance. The supporters hold that microfinance

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provides a durable answer to the endemic problem of rural poverty eradication and will eventually "send poverty to the museum." Microcredit works like a miracle: It not only addresses credit market failures for the poor and aids small savings/investments, but also builds a platform on which other mobility strategies and pathways, such as human development and migration, can be effectively implemented. While it only reduces extreme poverty, it can lower risks of falling into greater poverty. Supporters continue to hold microfinance as one of the key time-tested tools for global poverty eradication. However, skeptics argue a diametrically opposite position. They hold the negative view that lending by microfinance institutions (MFI) is wasteful, prone to huge targeting errors and leakages, and, in practice, not an effective tool for rural poverty reduction. To this effect, they raise a range of counter-arguments: "may benefit the poor in the short-term, but long-term mobility prospects are uncertain"; the extreme poor are "by-passed" by MFIs; "income shocks are not addressed and, consequently, assets are depleted"; MFIs charge very "high interest rates"; "excessive repayment pressures" on the borrowers almost like the traditional moneylenders; "microlenders are blood-suckers," etc. How can a sector evoke such opposing views and conclusions? Recall the terms "Microfinance Revolution" (Robinson 2001; Kono and Takahashi 2010) and "Microfinance Promise" (Morduch 1999)—how are we to understand these signals in view of the above ongoing polarized debates? Writing about the hegemony of microfinance in the mid-2000s, Jonathan Morduch observed:

> Revolutionaries are not noted for the modesty of their aims, or their claims. Nevertheless, it is certainly true that microfinance—the provision of very small loans and deposit services for the poor, under-served, rural, mostly women borrowers and savers—has captured the imagination of policy-makers, development practitioners, and researchers in ways that few other programs have. Aid grants and financing have flowed to support microfinance programs, NGOs have incorporated microfinance in their health or education or gender equity programs, Bangladesh's Grameen Bank is now almost as famous as the World Bank, and the UN General Assembly has declared 2005 as the International Year of Microcredit.

There has been a massive expansion of MFI reach in Bangladesh in the recent period: MFI membership has increased from about 8 million in 1996 to 34.6 million in 2010. MFI mobilized Taka 7 billion in savings in 1996, which grew to over 160 billion by 2010. The same applies to the

"self-help group" movement in India and microlending practices in rural China (Hsu 2014). The idea of microcredit in various forms has found expressions in diverse country contexts (in both developing and developed counties). Based on a recently estimation from the responsibility, there are about 10,000 MFIs exist worldwide and the global microfinance market is expected to grow by 10–15% over next a few years (responsAbility 2015).

Is the original cause for microfinance optimism still valid? We tend to argue that the original spirit of microfinance is still valid, though like Derrida, we can also talk about the "spectrality" of microfinance; the question of which form, of the possible "spirits," of microfinance is alive and well is important to distinguish in this heated debate. We are not simply seeking an artificial middle ground—as Hegel would remind us, "Between the two extremes lies not the solution, but the problem." Much of the development within the microfinance sector in terms of its reach, subsequent modifications of its internal rules and institutional arrangements, and actual program effects cannot be understood without reference to the development dynamics on the ground, i.e., on-going structural transformation in rural societies—ranging from Bangladesh and India to China and Africa. In this uncertain dynamic of rural structural transformation, even a microfinance revolution needs to rejuvenate itself with each successive stage of development. After all, no true revolution is possible without transforming the very idea of revolution.

1.2 Three Basic Ideas of Microfinance

The idea of microfinance, or small finance, rests on three foundational claims that defy conventional wisdom.[1] First, it is asserted that the poor are as bankable as the rich. Professor Muhammad Yunus, the founder of the Grameen Bank and a Noble Laureate, put it in even starker way in the language of rights: "access to credit is a basic human right." The idea of bankability of the poor goes against the practice of conventional banking. After all, the poor lack collateralizable assets, and thus they are likely to be cut off from the formal credit market.

Second, it is claimed that the poor do not lack entrepreneurship. Whether the microfinance project is intended to promote self-employment by deploying family labor of the poor or to generate additional wage employment for workers outside the immediate family, supply of entrepreneurial skills is never in question. Again, this militates against the notion of conventional class divide between the owners of capital and

owners of labor, and the norm that the poor can improve their lot only through participation in the labor market, and not through trespassing into the realm of capital. Microfinance tried to make a break here—overcome the traditional antinomies between labor and capital—by transforming a large section of the poor into a small but upwardly mobile class of entrepreneurs, who would often compete in the same product market as the rich. Time and again, Yunus reemphasized the often-neglected role of sustainable self-employment in the process of economic development of the poor countries and the need for rethinking the function of development entrepreneurship in a broad-based way.

Third, a corollary to these two claims is the implicit recognition that more equitable society based on a well-functioning market economy demands not only a more equitable distribution of income but also a more equitable distribution of capital. The rhetoric of microfinance is strongly framed in the politics of poverty eradication ("send poverty to the museum"—a clarion call eventually reflected in the transition from MDG to SDG) and a just equitable society within the framework of market economy (Yunus calls it a "socially conscious market economy"). The ambiguities and ambivalences implied by the usage of the above terms cannot escape attention here. However, the moot point is to recognize that it claimed to "speak truth to the power" in the name of global poverty eradication and global equity. Although born in Bangladesh, it did not remain restricted to local nationalism; from the start it had a global reach, almost struggling to market itself as a way of addressing global economic injustice without drastic alterations of prevailing power-sharing arrangements. In that, the movement of microcredit and microfinance has acquired an implicit ideological positioning as a "left-of-the-center" political idea.

Empowered by the above ideas, microfinance schemes have received policy attention in a large range of developing countries as a tool of poverty reduction in diverse economic (agrarian/rural as well as non-agricultural/urban) contexts and as a supplementary mode of targeted institutional interventions alongside the mainstream economic policies. Over the past four decades the "microfinance sector" has undergone considerable changes; it has become more diversified sector-wise, more heterogeneous in terms of clientele, and more complex in terms of plurality of institutional arrangements. The practice of microfinance has proceeded faster than the initial premises guiding its operation, thus creating new questions for both research and practice. Some of the papers

included in this volume reflect the growing complexity of the microfinance sector.

1.3 Evolution or Mission Drift?

Some of the changing lending practices in the microfinance sector—gradual shifts from group to individual lending, divergences between intended and actual loan use, excessive repayment pressures, and heterogeneity of clients—often including persons outside traditional poverty groups—seem to question the very premise of microfinance and were bound to trigger debate. Increasing complexity of the MFI sector was interpreted as undermining of the original mission statement, as growing amnesia of the promise, and as a shift, drift, or derailment from the poverty reduction goal, tantamount to a betrayal of the "cause of revolution."[2] As deviations from the original norm became more or more apparent in diverse social contexts and different country settings, the voices of dissent became louder (Merland and Strøm 2010). These dissenting concerns merit close analytical scrutiny. First, it could be that some of the changes are reflective of new realities on the ground, often arising from the very dialectic of "contradictions" that were already present in the design of traditional microfinance. Rural (agricultural) and urban (non-agricultural) conditions may dictate different lending practices, as would targeting male vs. female borrowers. Second, some of the changes in the practices in the microfinance sector may be institutional responses to meet the inter-generational aspiration/mobility responses of the poor clientele of MFIs. These changes, in part, explain why Grameen educational stipends and microinsurance emerged as additional MFI products in Bangladesh. Third, new challenges thrown in by the dynamics of structural transformation also led to different takes on the microfinance sector. Initially, MFIs were focused only on self-enterprises. However, over time, as the incidence of extreme poverty (defined by a suitable poverty line) started falling, compulsions to address the concerns of the segment of vulnerable non-poor arose as well. This is part of the reason attention has shifted to microenterprise loans. Third, part of the "mission drift" controversies lie in the adequate episteme: practice of microfinance has proceeded faster than the conventional theory of microfinance (predicted/itself) (Mahmud and Osmani 2016). New practices challenged economic theory and raised new questions, some of which we shall review later as part of this essay. In a sense, this was

inevitable. After all, the poor are not a homogenous community; they include diverse social and economic groups with vastly different occupational leanings, assets, vulnerabilities and empowerment conditions that are "huddled together" into one overarching concept of poverty (Sen 1981).

The upshot of the above is that development of the microfinance sector is better tracked through the prism of an evolutionary approach that considers the changing ground realities as well as the compulsions of meeting new financial product demands of increasingly diversified and heterogeneous MFI clientele. Whether, with the passage of time, it had drifted from the original mission statement of helping the poor and the marginalized, and instead become a mere financial technology to be used alongside other tools of macrofinance, is also a question deserving of more rigorous scrutiny.

1.4 Economic and Social Effects: Converging Evidence

This section summarizes the highlights of the growing literature on microfinance that have accumulated over the past three decades.

1.5 Shifting Currents in Microfinance Research

Already a fair body of research has gone into microfinance operations and their economic and social effects.[3] These can be broadly summarized into three phases:

The first-generation microfinance research spanned a period from roughly the mid-1980s to the mid-1990s. It focused on poverty alleviation approaches (empowerment vs. credit vs. credit-plus), targeting (identifying which segment of the poor is more bankable), and mostly naïve "before–after" and "with–without" comparisons for impact assessments. These studies include pioneering works by Mahabub Hossain (1984, 1988), followed by BIDS (1990), and Hulme and Mosley (1996). Already by the early 1990s, there was recognition that the effectiveness of non-farm microcredit as a poverty reduction tool depends on other economy-wide factors, such as agricultural growth (Osmani 1989).

The second-generation microfinance research roughly occurred between 1995 and 2010. It focused on more statistically rigorous

methods of impact assessments—including regression–discontinuity design, fixed-effects/random-effects panel regression, propensity score matching (PSM)-based "double-difference" calculation, and RCT trial embedded in a panel approach, involving both income and non-income aspects (including women's empowerment) at the household level. These studies range from Pitt and Khandker (1998), Morduch (1999), Khandker (2000) to Osmani (2012) and Field et al. (2013).

The third-generation microfinance research (2011–Present) seems to be proceeding along three directions: (a) explore learning and network externalities and spillover effects; (b) study macrolinkages of microcredit with growth and structural transformation; and (c) construct and revisit the theories of microfinance based on the dynamic understanding of the evolving internal practices of microfinance in diverse economic contexts. These studies range from Stiglitz (1990), Besley and Coate (1995), Ghatak (1999) to Aghion and Morduch (2005), Banerjee and Duflo (2011), and Mahmud and Osmani (2017).

Several research findings that have emerged from this research may be highlighted.[4] These may be grouped into three broad categories, namely, (a) economic effects of microfinance, (b) social effects of microfinance, and (c) spill overs and network externalities. Each is reviewed in turn.

1.6 Economic Effects of Microfinance

The weight of evidence is generally indicative of positive effects on the economic well-being of the "treatment group" (MFI members/borrowers) compared to the "control group" (defined as non-members/non-borrowers with "similar eligibility" criteria). These effects are measured in a variety of dimensions—income, consumption, poverty, assets, and resilience against shocks. Several findings are noteworthy.

1.6.1 Profile of the MFI Borrowers

First, those who borrow from microfinance institutions meeting their eligibility criteria (the so-called "target participants") are generally found to be poorer than the non-borrowers meeting same eligibility criteria (the so-called "target non-participants"). This has been evidenced from diverse studies (Khandker 2005; Osmani 2012). They are also found to be originating from poorer localities, possibly due to early emphasis on meeting the needs of the spatially poorer areas, but not necessarily from

the most ecologically vulnerable areas. Typically, they do not represent the very poor or the poorest. In that sense, there is a "selection bias" in the selection of borrowers.

Second, however, this may create the impression that MFI borrowers are a relatively homogenous category. The evidence suggests the contrary. Judged from the income–poverty angle, MFI clients would appear to be a mixed category: while the focus is on the moderate poor (suitably defined), the extreme poor are not bypassed altogether and the non-poor belonging to the "non-target" group are also present in the mix (BIDS 1990; Zohir et al. 2001; Rahman et al. 2005).

Part of the reason for this curious mix is attributable to the land ownership criterion for selecting the borrowers (usually set on a low cutoff point, though not at the lowest possible cutoff in the landownership scale). After all, land is an imperfect targeting criterion for defining poverty status. Thus, infiltration is possible because of differing land quality at different places and may result in the deliberate relaxation of the land-based criterion. The infiltration of the non-poor is generally restricted to the lower end, comprising mostly those who are slightly above the poverty line (suitably defined).

Third, even a regular microfinance route can serve the cause of the very poor (Razzaque 2010), but the poorest of the poor may need special assistance programs such as Targeting the Ultra-Poor (TUP) which anticipates asset transfer and skill development before connecting them with routine microfinance streams (Matin and Hulme 2003).

1.6.2 Long-Run Impact on Poverty and Asset Accumulation

The first-generation studies focused on cross-sectional comparisons economic well-being between program participants and non-participants. Only a few studies carried out similar analysis over a long-run panel. Thus, over a period of 8 years (1991–1998), extreme poverty was reduced by 13% points in the treatment group compared to the control area eligible non-participants (Khandker 2005). However, compared to the eligible non-participants residing in the same treatment area, the matched difference extreme poverty reduction was only 5% points. The same survey, when extended to the most recent wave, indicated a much smaller poverty reduction rate. Over the 1991–2011 period, extreme poverty in the treatment group dropped by a margin of 4% points on average compared to the control group as per the double-difference

method (Khandker and Samad 2013).[5] This suggests that the long-run impact of microfinance on poverty has been modest.

Whether microfinance is likely to have considerable long-term effects on economic mobility of the poor depends on the rate of asset accumulation/depletion. This issue has been explored by Osmani (2012). In any transition matrix based on consumption, income or assets, transition dynamics can be broken into three basic groups: (a) movers, (b) fallers, and (c) stayers. This can be applied to studying microfinance supported group dynamics as well. Analysis based on the transition matrix between initial and current non-land assets shows that microcredit increased the probability of moving up through the asset ladder by 4.5% and reduces the probability of falling by 7% (Osmani 2012). The matched effects were higher for borrowers for productive purposes than for those borrowing for consumption purposes, and for poor borrowers than for non-poor borrowers. The matched effect of current asset accumulation on future poverty would depend, in turn, on the return to assets ratio—a catch-all economic variable that depends on a variety of factors, including access to new technology, rate of growth in the sector of loan use and in the economy, and propensity to shocks (degree of risk aversion).

1.6.3 Impact on Resilience Against Shocks

Microfinance also helps to prevent shocks by availing consumption loans as distinct from productive loans. Consumption loans are common, though they represent a smaller share than loans for productive purposes: 63% of the microcredit borrowers used it mainly for consumption; 25% of the loan amount is used for consumption purposes (Osmani 2012). Evidence indirectly suggests consumption loans (and microcredit in general) are associated with non-erosive coping and lower level of assets depletion. Microcredit also plays the role of a substitute to asset sale by providing alternative means of consumption smoothing, thus preventing slide into poverty. However, microcredit cannot provide insurance against all kinds of shocks at all times. Microfinance needs to be combined with microinsurance, social protection, and human development. This may be the contour of the "next revolution" in the microfinance sector.

1.6.4 *Spillovers and Network Externalities*

Incremental economic and social effects of microfinance over the long panel seem muted, in part, due to the presence of spillovers and network externalities. One of the possible reasons for modest long-run impacts on poverty lies in the way microfinance works for non-members. In other words, it indicates strong spillover effects from members to non-members residing in the same treatment area. There is evidence on the presence of such spillover effects—facilitated by favorable social norms—in adoption of green revolution and family planning technologies and in "know-how" percolating from MFI borrowers to non-borrowers (Dev et al. 2005; Munshi and Myaux 2006).

Asset transfer programs for the ultra-poor also have spillover effects on the rural labor market. The ultra-poor program of the BRAC has helped transform the occupational choices of the poor women by inducing them to spend more time in self-employment and less in wage labor, leading to a 36% increase in annual income. More importantly, the program led to an increase in wages at the village level and its effects had spillover to other poor women who also experience labor supply and income effects (Bandiera et al. 2012). Using RCT, it was found that program (asset transfer and training program) affects outcomes among social network members (Bandiera et al. 2009), i.e., not just confined to the program members alone.

Microcredit has had positive social effects on other dimensions of well-being, not only for the borrower families, but also for their extended kin and neighborhood households. Borrower households have higher intra-household and community-level women's visibility, mobility, voice, agency, influence, aspiration, capacity to contest, and economic empowerment. Significant household- and community-level externalities in terms of women's empowerment, family planning, and children's and women's health and nutrition have been observed, especially in contexts where social divisions along ethnicity, caste, and language are found to be less obstructive.

1.6.5 *Microfinance and Consumption Inequality Dynamics*

Microfinance can also influence macrodynamics in inequality of consumption expenditures. This is especially true in countries with significant expansion of microfinance, both in terms of reach and depth, such

as Bangladesh. The explanation goes as follows: before the rapid expansion of microcredit, liquidity constraint was binding for poor people. Many of them faced negative income shock and could not prevent their actual income falling below the "permanent income." Thus, they could not maintain the "desired" level of consumption by borrowing against future income. With the relaxation of the borrowing constraint, they can now keep the propensity to consume closer to the optimum level in line with the logic of inter-temporal smoothing (earlier MPC for the poor was kept at an artificially lower level). Thus, consumption distribution has not worsened even as income inequality has (Osmani and Sen 2011b; Osmani 2015).[6]

This explanation accounts for the rapid decline in rural poverty—from 53 to 35% over 2000–2010—one of the fastest episodes of poverty decline in South Asia. But this favorable trend in consumption inequality is contingent on rapid expansion of microcredit, as noted before, with MFI membership increasing from 8 to 34.6 million over 1996–2010. However, such favorable consumption trends via microfinance supported consumption growth at the lower end of the income distribution cannot be sustained indefinitely. As soon as microfinance growth reaches saturation point, the trend in consumption inequality would be reverted to the trend in income distribution determined by the distribution of factorial incomes.

The moot analytical point illustrated by the Bangladesh example shows that macroeffects of rapid and expanded access of MFIs can be considerable for achieving twin goals of moderating consumption inequality and rapid poverty reduction. This contrasts with international migration, which is poverty reducing but inequality enhancing. In overall scheme of things, macrolinkages mattered for microexpansion lending. Microfinance did not work alone; it was ably supported by structural transformation that harnessed relatively unskilled labor through the sectoral growth drivers of agriculture and manufacturing exports.

1.7 New Features of the Microfinance Sector

Recent research on microfinance focuses on investigating the linkages of microfinance with other sectors, inter-generational mobility issues of the MFI members and their families, spillover effects and network externalities of microfinance on other non-borrowers of the local community, fast spreading reach of urban microfinance, and understanding the evolving

practices of microfinance (including tensions between the formal rules of institutional microlenders vs. the informal rules on the ground). Here we highlight the most salient issues.

1.8 Farm vs. Non-Farm Microcredit

It is traditionally assumed that microborrowers usually demand credit for non-farm sectors, or at most for non-crop agriculture such as fishery and livestock/poultry. The rationale for such behavior is in the very small land size of the borrowers. Microfinance borrowers usually have very little or no land; in fact, lack of collateralizable land assets is the principal reason as to why they are cut off from the formal credit market in the first place. In the initial two decades of operation of MFIs, this was indeed the case. About 50% of the Grameen loans were taken for livestock/poultry sector, while the remaining 50% went to non-farm sectors. The situation seems to have changed by the 2000s. There has been an almost unpredictable rise of the use of microcredit for crop agriculture—via a land tenancy market—by the landless farmers who earlier used microloans for rural non-farm purposes. This is corroborated by the rise of "pure tenants"—from 4% in 1988 to 16% in 2008 (Hossain and Bayes 2009). The "demand" of pure tenants increased as they could now lease land from others by accessing microcredit. The "supply" of land under tenancy increased because of many erstwhile landowners moved out of agriculture and started new jobs in cities and abroad. This is an example whereby the role of microcredit in farm sectors increased because of external forces—due to a positive nexus with urbanization and international migration (Hossain et al. 2016). The farm orientation of microcredit is also linked with "feminization of agriculture" (Jaim and Hossain 2011).

1.9 Changes in Lending Practices

Some of the new developments in the microfinance sector relate to the considerable modification of traditional rules for lending practices. Traditional rules of microlending emphasized a weekly repayment schedule, use of group based lending and the use of peer pressure as social collateral against default, explicit stipulation of the loan use, exclusion of consumption loans, explicit bans on simultaneous borrowing from multiple institutions, etc. These practices historically instilled certain degree

of loan discipline among the MFI borrowers. However, in recent decades one can witness the relaxation of many of these criteria in practice. Evolution of lending practices away from the "one-size-fits-all" approach can be observed both within a given country as well as across countries. Mahmud and Osmani (2016) sought to explain these deviations. Several explanations provided by them are noteworthy for understanding the dynamics of microfinance in changing economic contexts.

First, the traditional weekly repayment requirement and 1-year loan cycle encourages repayment discipline. However, this has ramifications for the type of loan use. Microloans used for income generating activities (IGAs) are mostly applied to acquiring working capital (which depletes toward the end of the loan cycle) and less often or only partly for acquiring fixed capital. This has implications for the choice of products and technology. Some overlaps of loans are now allowed (half of the loan replenished after 6 months), but continuous replenishment of working capital is not allowed because it may conceal progressive bankruptcy and unsustainable loan use (loan diversion). Second, a recent study suggests that increasing repayment period helps to raise capital base, productivity and income (Field et al. 2013). Third, MFIs are still reluctant to increase the period of loan cycle since the microlenders want to keep a tab on borrowers and reassess any change in their situation (e.g., prospect of migration to urban areas, shocks to livelihoods).

Fourth, often it is argued that microfinance should pay more attention to individual specific credit requirements. However, microcredit delivery still functions like a franchise system, allowing no borrower-specific variations in loan modalities. There are good rationales for sticking to the same rule for the same type of loans: to keep the transaction cost low and to allow no discretion at the level of field officers (discretion can lead to corruption). Thus, any modifications in loan modalities are rule-based and administered uniformly from the top. For newly innovated different loan modalities, new borrower groups are defined and administered accordingly (as in the special case of agricultural or seasonal loans, microenterprise loans, etc.).

1.10 Repayment Pressure in Microfinance Sector

Microfinance is generally marked by high and very high repayment rate. In case of Grameen and BRAC, it is claimed as being in the order of 98%. This is achieved through constructing two pressure mechanisms for

repayment enforcement: (a) one based on the coercive power of the MFI (where power of coercion is subject to a socially acceptable limit), (b) another based on incentives for getting further loans, loss of the savings kept with the MFI, and trust-based relationship, all reflected in the borrower's estimate of cost of non-repayment. If these two channels work smoothly, enforcement of the credit contract is ensured. However, in recent years, much has been written about regarding "excessive repayment pressure" in the microcredit sector, tarnishing somewhat the public image of MFIs. What explains this new phenomenon? One possibility is that excessive competition among MFIs, with pressure on loan officers to expand membership, has led to the expansion of microlending to borrowers who would be normally excluded from the MFI market. This may eventually lead to coercion in the likely event of their default.

However, this is not a desired institutional outcome either for the MFIs (for their public image as agencies with social mission) or for their borrowers (the cost of "repayment shocks" may be damaging in the long-term for escaping poverty). Hence, the more important question is: Why should the loan officers of MFIs be hung up on a 100% recovery rate? After all, an MFI with a true social mission (necessary for the trust-based system to operate) is not just interested in loan recovery, but is also concerned about whether such repayment ultimately leads to more poverty.

Ensuring near 100% repayment means avoiding risks (e.g., not lending to the very poor, not allowing loan flexibilities that may lead to more profitable but riskier projects, including business start-ups). However, too much risk aversion can arrest the growth of microfinance and lead to the exclusion of the "deserving very poor." Besides, not all kinds of risks can be avoided operating within the rubric of the microfinance sector alone. For instance, not much can be done in case of extreme unforeseen shocks (the frequency of such shocks has been found to be about 5% in a year among microcredit borrowers to still be manageable within acceptable default rate). Keeping risk-related defaults aside, there is a problem arising from the fact that poor people will want to take loans beyond their means of repayment in the case of emergencies (such as health shocks) or under social pressure (e.g., dowry), leading to increased risk for greater poverty. Such time-inconsistent preference cannot be ruled out. However, the point to note is that such borrowing patterns cannot be effectively addressed by strict enforcement of repayment schedule. Group liability, which helps repayment enforcement more than

the monitoring of loan use, is not also of much help here. This is one of reasons why loans are diverted from their intended purposes (about a quarter of the loans are found to be used for consumption purposes in Bangladesh, contrary to the formal rule of MFIs prohibiting such use). The potential biases for shock-induced emergency loans can be addressed through other means, such as an effective system of social protection.

1.11 Blending Microfinance with Other Tools for Poverty Reduction

In short, lack of adequate public social protection lies at the root of the controversy regarding the role of MFIs in such cases. A high repayment rate alone is not enough; in such cases MFIs tend to refrain from lending to the poorest, due to the lack of ability of such borrowers to manage loans usefully. Some design changes are needed too, as a lot of microfinance is wasted on the well-off. The INM 2010 survey shows that almost half of the poor and marginally poor are left out because the latter find some of the "MFI conditions unacceptable" (Mahmud and Osmani 2016). In short, there is scope for improving targeting. New products and possibly a new delivery system are needed to minimize inclusion and exclusion errors. Even then, some groups will be left out of MFI. The left-out poorest should be served by ultra-poor programs based on asset transfer and vocational skill training programs to better prepare them for eventual inclusion in microfinance. A greater macrointerface of the microfinance sector is needed with growth, social protection, and human development programs to improve upon the poverty reduction performance of the MFIs.

1.12 Coverage of Issues in the Present Volume

The essays collected here address a range of topics, theories, data and methods within our board research framework. First 4 chapters (Chaps. 2, 3, 4) focus on how microfinance impacts on entrepreneurial development, and the rest of chapters pay attention on some other important issues related to microfinance, such as the choice of finance (Chap. 5), financial capability (Chap. 6), women's empowerment (Chap. 7), microfinance impact assessment methodologies (Chap. 8), Islamic microfinance (Chap. 9), and productivity analysis for MFIs (Chap. 10).

Chapter 2 by Newman, Schwarz, Borgia and Wei, titled "The Influence of Formal and Informal Institutions on Microcredit: Financial Inclusion for Micro-Entrepreneurs by Lender Type," applies the Helmke–Levitsky typology of informal institutions to discuss how the interaction between the formal and informal institutional environment has shaped the development of China's microfinance industry. The chapter shows that formal regulatory framework influenced commercial "for-profit" microfinance providers (village and township banks or "VTBs") and public interest microfinance providers (microcredit companies or "MCCs") in different ways. While MCCs suffer deficiencies of not being able to accept savings deposits, VTBs are restricted by the inability to charge higher risk-adjusted interest rates. Geographic separation and low levels of out-group trust constrain the development of microfinance organisations, especially when the organisations do not have strong ties to local communities.

Chapter 3 by Kumar, titled "Microfinance for Entrepreneurial Development: Study of Women's Group Enterprise Development in India" studies the role played by microfinance in enterprise development and its impact on income and employment of female entrepreneurs in rural India. The analysis draws on interviews with female members of SKDRDP, one of the largest non-governmental (not-for-profit) MFI based in India. The results show that the combination of microfinance and non-financial services has helped the female entrepreneurs to improve their income and employment.

Chapter 4 by Agbeko, Blok, Omta and Velde, titled "Perception of Microfinance Debtors and Loan Officers on the Importance of Entrepreneurial and Business Skills for Loan Repayment Rates," explore what set of entrepreneurial and business competencies are most important for loan repayment rates. Based on the discussion of seven debtors and uniCredit Ghana loan officer, the authors use Cohen's Kappa inter-rater agreement statistic to find that there is no agreement (within group comparison) among the microfinance debtors as to what they think is important for loan repayment rates. Meanwhile, loan officers have diverse opinions as to what skills they think are important for microfinance debtors' loan repayment rates.

Chapter 5 by Davutyan and Öztürkkal, titled "Choice of Finance in an Emerging Market: The Impact of Intendent Decisions, Politics and Religion," analyses a KONDA Research and Consultancy survey of 2607 people conducted in 2014 which focuses on the impact of religion and

political views on the decision of saving and borrowing. The results show that religious individuals are less likely to make investment decisions together with family members especially elders. Religious people and those with a conservative lifestyle are less likely to borrow from family and friends.

Chapter 6 by Ling, Wilson and Shevellar, "Managing everyday living: Microfinance and capability," attempts to examine the perceived impact of a No Interest Scheme (NILS) loan on the financial capability of people on low incomes in Queensland, Australia. Seventeen NILS participants who have completed repaying a NILS loan were interviewed to explore how participants used NILS, their attitude toward money, their money management style; the unfreedoms participants experienced; and the perceived impact of NILS loans on participants' money management skills. The authors argue that in order for microfinance programs to achieve maximum benefit, building financial capability for their participants is as important as providing financial access.

Chapter 7 by Kulkarni, Azam, and Gaiha, "Credit, Microfinance and Empowerment," shows there are heterogeneous impacts in terms of women's empowerment across households that vary with gender defined social norms. Group lends attempts to overcome the dual problem of missing collateral and lack of intermediary capital. However, in recent years, there has been a shift toward individual lending contracts, in part a response to client complaints that group lending creates excessive peer pressure within groups. Shift of the focus to financial sustainability raises serious concerns about dilution of the outreach of microfinance (i.e., the number (breadth) and socioeconomic level (depth) of the clients served by MFIs). The trade-off exists is undeniable, but little is known about its extent. However, retaining a non-profit charter signals commitments not to divert donated resources for personal gain. This may also help attract outside capital donations and prevent mission drift. Use of existing social networks between current and new microfinance clients may help reach out to the poor at a considerably lower cost than when such networks are not used.

Chapter 8 by Oluyombo and Iriobe, titled "Microfinance Impact Assessment Methodologies: Is it Qualitative, Quantitative or Both?" discusses methodological issues on how to assess the effect of microfinance program on the participants over a given period of time. The positivists argue for the use of quantitative method to explain the reason for changes among microfinance program beneficiaries. The quantitative

method leads to generalisation of result such that the outcome of sample can be used to determine the result of the population. However, the interpretivists lend their work to the inductive strategies that meaningful microfinance impact assessment cannot be determined by using quantitative methods of data collection and analysis. Rather, a coherent and useful microfinance impact should be based on qualitative methods. It is recommended that future studies should strive for the use of mixed method such that both the qualitative and quantitative approaches are used in a single study.

Chapter 9 by Tamanni and Liu, titled "What is Islamic microfinance," compressively discusses Islamic microfinance from many aspects. It shows the evolutions and main characteristics, and funding resources of Islamic microfinance. The authors also explain the difference between Islamic microfinance and conventional microfinance.

Chapter 10 by Mia, "Determinants of Total Factor Productivity in Microfinance Institutions: Evidence from Bangladesh" aims to evaluate productivity and determinants of productivity in microfinance institutions (MFIs) to support the on-going debate on sustainability in the microfinance industry. The study used the two-stage semi-parametric approach. In the first stage, the Malmquist Productivity Index (non-parametric) was employed, and it was found that MFIs in Bangladesh observed an average of 3.6% productivity progress per annum, with a declining trend toward the end of the study period. In the second stage, the regression analysis (parametric) showed that institutional characteristics, macroeconomic factors and external sources of funds significantly affect the total factor productivity (TFP) of MFIs. Findings and policy implications are further discussed.

Finally, we would like to thank all our authors for their excellent contributions and also for being patient with our demands during the editorial process. We enjoyed reading the individual chapters immensely and remain hopeful that this will be shared by our readers.

Notes

1. The terms of microcredit and microfinance are used interchangeably, though the former historically precedes the latter.
2. Indian social scientist Rajni Kothari used first the term "growing amnesia" to denote trivialization of poverty reduction goal in the age of globalization and market liberal regimes (Kothari 1993).

3. See, Osmani and Khalily (2011), Osmani and Sen (2011a) for a review of the literature and a reference to the early literature on microcredit.
4. These research findings, summarized below, mainly relate to evidence emerging from Bangladesh—the "very low-income" context where the homegrown idea of microfinance arose in the 1970s and has been subjected to extensive research since then. In 1974, Bangladesh had the second lowest per capita income in the world, per the World Bank, lowest being Rwanda; by 2015, it simultaneously entered the league of Lower Middle Income, per the World Bank classification, and into the league of Medium Human Development, per UNDP. Bangladesh's "unexpected success" has been attributed to several factors, including microfinance, as the reach of MFIs expanded rapidly throughout this period (Hossain et al. 2016; Hossain 2016).
5. Indirect evidence from Hossain and Bayes (2009) also suggests that the poverty headcount in the treatment group was lowered by 7% points compared to the control group, defined as belonging to the same land-size category.
6. To what extent this has also occurred in other countries with significant financial deepening needs to be explored further.

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CHAPTER 2

The Influence of Formal and Informal Institutions on Microcredit: Financial Inclusion for Micro-Entrepreneurs by Lender Type

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Abbreviations

CBRC China Banking Regulatory Commission
MCC Microcredit Company
NGO Non-governmental Organisation

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PBOC People's Bank of China
RMB Renminbi
VTB Village and Township Bank

2.1 Introduction

Despite major advances in development, more than two billion people worldwide continue to live in poverty, at levels below US $2.00 per day. The provision of microfinance loans to poor entrepreneurs is one method to address this inequity, yet serious constraints exist to microlending and financial inclusion for low-income residents. This paper examines the role of formal and informal institutions in shaping the development of the microfinance industry, with the goal of reducing poverty, in the context of China. Qualitative case studies of seven microfinance organisations operating in different regions reveal that deficiencies in formal regulatory frameworks restrict the ability of both commercial and public interest lenders to expand the reach of microcredit, especially among the poorest recipients. In addition, flaws in the formal institutional environment have led both types of organisations to rely on informal institutions as a substitutive mechanism by which to reach poor entrepreneurs.

This paper applies the Helmke–Levitsky framework (Helmke and Levitsky 2004) to understand the interaction of formal and informal institutions in fostering or constraining financial inclusion, thereby projecting future pathways for the industry. We build on previous research pertaining to the ethical implications of microfinance and the influence of institutional environment on the development of the industry. Key ethical issues in microfinance include interest rates and the growing tension between financial viability and social mission (Boatright 2010), as well as the capacity of the industry to reach the poorest clients. Evaluative studies of microfinance have found that microloans generally have a positive effect on the well-being of recipients, yet regulation can support or hamper the reach of such loans (Argandoña 2010). Ensuring fair access to credit requires a range of public and private actors to work to establish an effective institutional order for inclusive finance (Hudon 2009). By viewing microcredit as an ethical response to the failure of traditional banks to reach underserved populations (Cowton

2010), we examine how constraints on credit thus limit reach to the unbanked, with serious implications for lenders and their clients. We also address institutional effects in light of the debate over fair interest rates (Argandoña 2010; Boatright 2010) and the effect of microcredit regulation on credit access for microentrepreneurs.

Scholars have recognised the effect of formal and informal institutions on microfinance expansion in Southeast Asia, Africa and Latin America (Barboza and Trejos 2009; Battilana and Dorado 2010; Hermes et al. 2005). However, there has been limited focus on the factors that influence the provision of microcredit in transition economies such as China, which are characterised by high levels of state control in some areas, yet dysfunctional or nonexistent formal institutions in others (Boisot and Child 1996; Peng 2000). We expand this discussion by identifying the deficiencies of the formal institutional framework governing the microfinance industry in China, and the extent to which informal institutions support microlending. The Helmke–Levitsky typology (Helmke and Levitsky 2004) allows us to classify how informal institutions either support or hamper the functioning of formal institutions. In doing so, we investigate the influence of formal institutions on the operations of nonprofit and for-profit microlenders in China, while examining the extent to which informal institutions have filled the gap to increase the reach of lending. These questions have ethical relevance because impoverished people suffer due to poor institutional contexts, including ineffective government and regulatory agencies, thereby hampering the lending relationship necessary for financial inclusion (Chakrabarty and Bass 2014).

2.2 Contextual and Theoretical Background

Over the last two decades, private firms, governments and nongovernmental organisations have increasingly established microfinance programmes throughout the poor and mainly rural areas of the world as one means of fostering economic development and reducing poverty. Although definitions vary, microfinance generally encompasses a range of financial services—including loans, savings deposits, insurance and money transfers—provided to low-income clients who lack access to formal financial services. Microfinance is primarily intended to reduce poverty by empowering low-income populations to participate in economic activities and build small businesses, thus closing a gap in the provision

of credit and other services to markets traditionally underserved by mainstream banks.

In the present study, we answer the calls of previous researchers (Khavul 2010; Khavul et al. 2013) to investigate the effect of the institutional environment on shaping the expansion of the microfinance industry in developing economies. We achieve this through case study analysis of interview data from senior executives and loan officers at seven Chinese microfinance institutions. More specifically, we examine how the formal institutional framework and informal institutional environment differently affect the operations of commercial 'for-profit' microfinance providers (village and township banks or 'VTBs') and public interest microfinance providers (microcredit companies or 'MCCs'). In doing so, we primarily focus on microcredit, which refers to small, unsecured loans to poor (usually rural) clients to support the start-up and expansion of microenterprises (Khavul et al. 2013).

While previous studies have explored institutional voids as areas of entrepreneurial opportunity (Mair and Marti 2009; Tracey and Phillips 2011), we seek to identify the main deficiencies in the formal institutional framework governing the microfinance industry in China, and the extent to which informal institutions support its functioning. In doing so, we follow previous work by applying the Helmke–Levitsky typology (Helmke and Levitsky 2004) of informal institutions to explore the interface between formal and informal institutional structures (Estrin and Prevezer 2011). Such an approach is unique in the microfinance literature and is particularly useful in the context of transition economies—in this case, China.

The main contributions of this paper are threefold. First, we seek to gain a deeper understanding of the existing formal institutional environment enveloping the microfinance industry in China, with a particular focus on the different ambiguities facing commercial (VTBs) versus not-for-profit (MCCs) actors. Second, we advance theory regarding the role of informal institutions, and whether they support the formal institutional framework in transition economies in general, and in China in particular. Third, we contribute to the discussion regarding microfinance as an ethical approach to inclusive finance for underserved populations by illuminating the institutional factors constraining microcredit provision, including the role of regulation and the tension between financial viability and social mission among lenders.

2.3 Microfinance in Global Context

Microfinance has attracted increasing attention among academics and policymakers during the last decade (Barboza and Trejos 2009; Bruton et al. 2011; Chiu 2014; Hermes and Lensink 2007; Tavanti 2013). In 2006, microfinance initiatives received worldwide acclaim when Muhammad Yunus—a Bangladeshi economist and founder of the Grameen Bank (a non-governmental microfinance organisation)—won the Nobel Peace Prize in recognition of his contribution to the development of microfinance as a mechanism for helping alleviate global rural poverty.

Due to the expansion of mainly non-governmental, not-for-profit microfinance organisations and initiatives in Bangladesh and other countries with large, poor rural populations in South Asia, microfinance is viewed as a critical means by which to increase access to financial services for poor and rural populations (Barboza and Trejos 2009; Beck et al. 2009; Mendoza and Thelen 2008; Spencer and Wood 2005). However, from the perspective of commercial financial institutions, microfinance is increasingly considered a means of generating profits (Bruton et al. 2011; Chiu 2014). As a result, a growing number of microfinance providers entering the industry are dominated by a 'commercial logic', rather than 'public interest logic', as originally envisaged by Yunus and his colleagues at Grameen Bank (Battilana and Dorado 2010; Chiu 2014).

The movement of the industry towards financial sustainability has resulted in increasing criticism that too many microfinance institutions seem to have little interest in poverty alleviation and are instead focusing on profits (Britta and Fouillet 2010; Cull et al. 2009; Hulme and Mosley 1996; Woller et al. 1999). As an example, in a recent review of the literature focusing on studies that examine the efficacy of microcredit, Roodman (2012) concluded that microcredit appears to have little influence in terms of helping poor, rural clients out of poverty. Despite these criticisms, profit-oriented microfinance organisations continue to expand, and many practitioners and scholars argue that there seems little choice but to take a more 'commercial' approach to ensure the economic and institutional viability needed to achieve the scale and developmental influence envisioned by early advocates of public interest microfinance (Schmidt 2010). Others argue that encouraging universal access to credit necessitates a range of institutional actors, both public

and private, supported by a governance framework in which both for-profit and nonprofit entities have key roles to play (Hudon 2008, 2009).

2.4 Microfinance Development in China

Although China has witnessed rapid economic expansion during the last 30 years, this has been accompanied by increasing financial and social disparities that are placing pressure on China's political and social stability (See 2009). China's population of rural poor, earning less than US $2.00 a day, is second only to India, while up to one-third of all Chinese citizens have no access to formal financial services (Cerny and Tou 2010).

Microfinance institutions have been operating in China for more than 20 years; however, it was not until the mid-1990s that China's central government officially sanctioned microfinance as a tool for enhancing access to financial resources and alleviating poverty in rural areas of the country (Turvey and Kong 2010). Microfinance was seen as an important avenue of support for potential rural entrepreneurs, given the significant hurdles they face in accessing formal sources of finance from the banking sector due to high levels of asymmetric information and strict collateral requirements (Khavul 2010). Following trials by scholars at the Chinese Academy of Social Sciences in 1994, the government began to provide capital to local governments and financial institutions for the purpose of supporting the development of microfinance organisations in rural areas (He et al. 2009; Park and Ren 2001; Tsai 2004; Turvey and Kongn 2010). This led to a proliferation in the number of foreign and domestically owned microfinance providers operating in China.

Today, two key types of microfinance provider dominate the microfinance industry in China. The first group includes VTBs, which tend to operate in small rural towns (Cerny and Tou 2010). As financial institutions that are governed by China's central bank, VTBs can accept deposits and tend to provide larger loans of between 5000 and 500,000 renminbi (RMB). Currently, there are an estimated 726 VTBs in China, making more than 60 billion RMB in loans (Wu and Yuan 2013). Approximately 80% of these were established by domestic commercial banks and 20% by foreign financial institutions (Sparreboom and Duflos 2012). In 2007, the China Banking Regulatory Commission (CBRC) introduced rules governing the ownership and operation of VTBs. Among these regulations is a rule requiring a 20% controlling stake by

a registered domestic or overseas financial institution. In addition, other nonbank shareholders cannot hold more than 10% of the equity of VTBs.

The second type of microfinance provider in China is the more traditional 'public interest' microfinance provider, known as an MCC (Cerny and Tou 2010). These organisations tend to be run by non-governmental organisations (NGOs) or local governments and operate in more remote, rural areas of the country. MCCs are not considered part of the Chinese formal financial system; thus, they are only able to provide lending services and are prohibited from accepting deposits. In contrast to VTBs, MCCs make much smaller loans, with an average loan size of 5000 RMB. Although it is difficult to calculate the exact number of microfinance clients in China, research published by PlaNet Finance estimates 4282 MCCs, with outstanding loans of 39 billion RMB (Wu and Yuan 2013).

Although China's central government has no specific law governing microfinance activities, the CBRC and China's central bank, the People's Bank of China (PBOC), have publicised a series of regulations designed to support and promote industry development, as explained in greater detail in the Findings section.

2.5 Institutional Theory: Formal Versus Informal

In the absence of an established theoretical framework for studying the microfinance industry, this paper employs insights from institutional theory to examine the development of the microfinance industry in China. Institutional theory contends that the behaviour of individuals and organisations is significantly shaped by regulatory (formal) and social (informal) institutions (DiMaggio and Powell, 1983, 1991; North 1990; Scott 1995). Recent studies have found institutional theory to be an effective tool for examining and understanding how organisations develop and operate in emerging economies such as China (Estrin and Prevezer 2011; Hoskisson et al. 2000; Peng et al. 2008; Wright et al. 2005). Institutions shape the behaviour of organisations and influence their ultimate failure or success (Peng 2003; Wright et al. 2005). Institutional theory is valuable for research about Chinese organisations because China's unique institutional environment has a profound influence on how business activities are conducted (Bruton et al. 2010). The historical legacy of socialism and strong cultural traditions make the

process of conducting business in China quite different from that in the West (Boisot and Child 1988; Child 1994).

In recent years, researchers have begun to recognise the significant influence of both formal and informal institutions on the development of the microfinance industries in emerging economies in South East Asia, Africa and Latin America (Battilana and Dorado 2010; Hermes et al. 2005; Ito 2003; Khavul 2010). However, none of this research has investigated the extent to which institutions influence the development and operation of microfinance providers in China. Given that China possesses an institutional environment that is significantly different to that of other countries due to relatively high levels of state control over the economy, the Chinese microfinance industry is expected to have developed unique characteristics to other countries (Peng 2000).

Before institutional theory can be employed to explain how the microfinance industry in China has developed, it is useful to discuss what is meant by 'institutions'. North (1990) defined institutions as 'the humanly devised constraints that structure human interaction, which include formal rules such as laws and regulations, and more informal constraints such as cultures, social norms and customs'. Scott (1995) categorised institutions into three main groups: regulatory, normative and cognitive. Regulatory institutions are those that are most formalised and represent formal laws and regulations sanctioned by the state. In contrast, normative and cognitive institutions are less formal and codified and propagate themselves through shared societal culture. They define the roles and behaviour that are expected of individuals within society. Normative institutions manifest themselves through accepted authority systems, such as professional standards and commercial conventions, whereas cognitive institutions refer to the generally accepted rules and beliefs that are established as a result of social interactions between members of a society (DiMaggio and Powell 1983).

Previous research has examined the nature of institutions and the process by which both formal institutions (such as laws and regulations) and informal institutions (such as relational ties [*guanxi*] and family networks) influence economic exchange and development in emerging economies such as China (Helmke and Levitsky 2004; Peng and Heath 1996). In general, these studies have found that, in economies characterised by weak or poorly designed formal institutional systems, organisations rely on building connections with government officials and other social actors as a mechanism by which to reduce uncertainty and improve

Table 2.1 A typology of informal institutions

Goals of actors	*Effective formal institutions*	*Ineffective formal institutions*
Convergent goals between those leading formal and informal institutions	Complementary	Substitutive
Divergent goals between those leading formal and informal institutions	Accommodating	Competing

Source Helmke and Levitsky (2004)

business performance. Application of these theories in China suggests that regulatory institutions are restrictive (Boisot and Child 1988; Peng and Heath 1996), possess a relative lack of professional (or normative) standards (Bruton and Ahlstrom 2003) and restrict the flow of information (Hoskisson et al. 2000), thereby posing significant environmental constraints to entrepreneurs.

More recently, scholars have begun to further explore the nature and importance of the interaction (interface) between formal and informal institutions in shaping organisations. For example, building on the research of North (1990), Helmke and Levitsky (2004) argued that informal institutions can either support or hamper the functioning of formal institutions. Based on this intersection between formal and informal institutions, as well as the goals of the actors leading these institutions, Helmke and Levitsky developed a typology of informal institutions, as shown in Table 2.1. The insight provided by the Helmke–Levitsky framework is its recognition of the conditions under which informal institutions either support or weaken formal institutions.

The first dimension of Helmke and Levitsky's (2004) typology is the effectiveness of the formal institutional environment, where effectiveness depends on both the existence of laws and regulations that enable markets, and the extent to which these rules are enforced. The second dimension under the typology is the extent to which the goals of actors in formal institutions are convergent with the goals of actors in informal institutions.

Since initiating market-oriented reforms more than 30 years ago, the liberalisation and development of a market-based financial sector in China has not kept pace with other economic reforms. As a result, the eruption of entrepreneurial activity during China's reform period has

relied largely on continuously evolving and developing informal financial structures. As discussed extensively by Tsai (2002), while economic structures left over from the pre-reform period resulted in diverse attitudes about formal financial sector development, supportive informal structures organised to fill the deficiency on the formal side. It is largely through the endurance and support provided by these informal financial mechanisms to entrepreneurs that China's economic phenomenon has been bankrolled. Some scholars (Estrin and Prevezer 2011) point to China's historically ineffective and inefficient formal institutional structures as creating an institutional void that affects both formal and informal institutions.

In the present study, we apply the Helmke–Levitsky typology of informal institutions to frame our understanding of how the interaction between the formal and informal institutional environment enveloping China's microfinance industry has shaped its development. In doing so, we seek to answer two main questions:

1. How has the formal institutional framework governing the microfinance industry in China influenced the operations of MCCs and VTBs differently?
2. To what extent have MCCs and VTBs used informal institutions to support the development of their Chinese operations?

2.6 Research Methods

This study employs a multiple case study approach through analysis of interview data, site visits and document review (Eisenhardt 1989; Eisenhardt and Graebner 2007), using the individual microfinance organisation as a unit of analysis. This methodology enables researchers to build on existing theory and provide explanations for observed phenomenon (Lee 1999). Given the paucity of research on this topic, a qualitative methodology was considered appropriate, as exploratory case studies can illuminate relevant themes rooted in institutional systems, thereby generating a broader holistic understanding of the topic (Tan 2009). The study takes place in China, with implications for microlending in a range of emerging economies. China was chosen because it has a large population of which more than 300 million live in poverty, has high growth rates and has a relative lack of coverage thus far in the microfinance literature. China's population of rural poor, earning less

than US $2.00 a day, is second only to India, while up to one-third of all Chinese citizens lack access to formal financial services (Cerny and Tou 2010; See 2009). China is particularly appropriate for investigation into institutional influences, given its nascent microfinance industry in which credit demand outstrips supply and complex institutional environment that features both formal and informal actors. The profile of case studies in our sample is highlighted in Table 2.2.

The organisations for the study were chosen using theoretical sampling in order to represent a range of institutional experiences, such as non-governmental, government, nonprofit and commercial organisations (Glaser and Strauss 1967). To conduct interviews, we obtained the contact details of 15 microfinance institutions from the leading trade organisation, the China Association of Microfinance. Seven organisations agreed to participate; of these, four were NGOs, two were state sponsored, and one operated branches in each sector. Fieldwork occurred during 2011 in five provinces in northern, western and north-eastern China, including visits to headquarters and branch offices to conduct in-depth semi-structured interviews with senior executives and managers.

Before conducting the interviews, the study questions were piloted using contacts in the microfinance industry to confirm their appropriateness and applicability. One of these contacts was a representative of a microfinance provider not included in our sample, and the other was a Chinese academic involved in microfinance research. Our expert contacts suggested that we rephrase certain questions of a sensitive nature. They also advised that we ask microfinance respondents to discuss their organisation's history and their experience in the microfinance industry at the beginning of the interviews in order to better understand the issues they faced and to build rapport with them before asking more sensitive questions.

All interviews were conducted in Chinese. The interviews were recorded, transcribed and translated into English using the back-translation procedure recommended by Brislin (1993). We undertook follow-up contact to clarify any uncertainties in the data. Data collection continued until we felt that subsequent interviews would not provide significant new insights (the saturation point had been reached). In the interest of confidentiality, the comments provided by the interview respondents have been kept anonymous.

Table 2.2 Profile of sample case study microfinance organisations

Name of organisation	*Legal status*	*Start date of Chinese operations*	*Location(s)*	*Client base*	*Sources of finance*	*Average loan size in 2011*	*Interviewees*
Organisation A	Public interest MCC/ VTB	2009	Chifeng, Inner Mongolia	Rural entrepreneurs: sole traders and registered small and medium-sized firms	Funds from United States	US $5952	Microfinance representative
Organisation B	Public interest MCC	2009	Partners in: Yilong, Sichuan Chifeng, Inner Mongolia	Rural entrepreneurs: sole traders (75% female)	Donations from individuals/corporate entities	US $300	Microfinance representative and three loan officers
Organisation C	Public interest MCC	2000	Hebei Shanxi	Rural entrepreneurs: sole traders	Donations from individuals/ church groups	US $932	Microfinance representative and three loan officers
Organisation D	VTB	2006	Harbin, Heilongjiang	Rural entrepreneurs: sole traders and registered small and medium-sized firms	Savings deposits Equity from overseas partners	US $3991	Microfinance representative

(continued)

Table 2.2 (continued)

Name of organisation	*Legal status*	*Start date of Chinese operations*	*Location(s)*	*Client base*	*Sources of finance*	*Average loan size in 2011*	*Interviewees*
Organisation E	VTB	2009	Hulunbuir, Inner Mongolia	Rural entrepreneurs: sole traders and registered small and medium-sized firms	Savings deposits and interbank deposits Equity from local partners	US $4615	Microfinance representative and three loan officers
Organisation F	Public interest MCC	1996	Chifeng, Inner Mongolia	Rural entrepreneurs: sole traders (100% female)	Donations from individual/corporate entities Donations from overseas aid agencies	US $615	Microfinance representatives
Organisation G	Public interest MCC	1998	Chengdu, Sichuan	Rural entrepreneurs: sole traders	Donations from the government Funds from overseas partners	US $780	Microfinance representative

2.7 Data Analysis

Data analysis began immediately after each field visit in order to understand the emerging themes, which could then be incorporated into subsequent visits (Bryman 2008). We took an inductive approach to data analysis through the use of thematic coding, in a manner consistent with grounded theory research design (Ryan and Bernard 2003), and we adopted a mixed approach to coding. First, we developed a list of analytical categories (codes) based on the previous literature, prior to conducting the interview fieldwork. This enabled analysis of the interview data as they were collected, and attributed codes to statements made by respondents in the interviews. Second, we developed new categories of codes to reflect themes that emerged during the analysis of interview transcripts, if a theme did not fit into the existing categories (Miles and Huberman 1994). We then applied the new coding category to the data already coded. The use of thematic coding enabled quantification of how frequently specific themes were addressed in the interviews, and facilitated quick retrieval of statements from across all interviews referring to the same theme (Kvale 2007). After completing all interviews, we compared the patterns observed in each of the cases and focused on identifying common themes and differences between the organisations. To increase the validity of the data analysis, we arranged interviews with two Chinese microfinancers, in which they were asked to comment on the findings of the study. The results of these interviews were consistent with those provided by the respondents, which served to strengthen the validity of the findings.

2.8 Findings

The findings from this study are presented in two main sections. In the first section, we examine the influence of the formal institutional environment on the operations of Chinese microfinance providers. In doing so, we examine distinct differences between commercial microfinance providers (VTBs) and not-for-profit microfinance providers (MCCs) in terms of how regulatory deficiencies constrain their ability to operate effectively. In the second section, we examine how both MCCs and VTBs have used informal institutions to support the development of their business operations. Tables 2.3 and 2.4 present the main findings from the data analysis.

Table 2.3 Deficiencies arising from the formal institutional framework

Theme number	*Identified theme*	*Number of MCCs*	*Number of VTBs*	*Indicative comments from representatives*
1	Inability to accept savings deposits	3 out of 5	0 out of 3	*The inability to take savings deposits has a huge impact on our business growth. We long to be able to accept deposits as one source of funding. It would allow us to reduce our cost of capital. ORG F (29 June 2011)* *It would be helpful if we could take savings deposits and it would allow us to grow faster. ORG C (30 May 2011)*
2	Lack of appropriate regulatory framework for 'public interest' microfinance providers	3 out of 5	0 out of 3	*In other countries in which we operate, there is a very clear regulatory framework that governs our activities. However, in China, there is no regulatory framework for establishing a 'public interest' microfinance institution. This has made it difficult for us to grow and achieve larger scale operations. We would like to see a new kind of regulatory framework that is suited for poverty alleviation microfinance. This would allow us to establish a stable, replicable business model. ORG B (18 July 2011)* *The fact that we are not formally registered as a financial organisation creates a bad perception of us on the part of prospective customers and employees. ORG F (29 June 2011)* *The regulations governing MCCs, and which government has supervisor capacity over them, are very unclear. In addition, the staff members the local government financial office have limited knowledge of public interest microfinance. ORG A (15 July 2011)*

(continued)

Table 2.3 (continued)

Theme number	*Identified theme*	*Number of MCCs*	*Number of VTBs*	*Indicative comments from representatives*
3	Inability to charge sustainable rates of interest due to interest rate caps by regulatory authorities	0 out of 5	2 out of 3	*A major challenge we face is about government control of interest rates. The government has imposed a very low interest rate cap which limits our ability to develop competitive new products. ORG E (5 July 2011) (see note)*
4	Inability to expand lending activity due to government imposition of low deposit/lending ratio	0 out of 5	2 out of 3	*This year, the government has restricted the amount of credit we can provide. This has affected our operations significantly … Although we had planned to lend over 200 million RMB this year, we are only able to lend 50 million as a result of the new regulatory constraints. This has caused our clients to lose trust in us.ORG E (5 July 2011)* *The PBOC regulations recently published require that the credit we provide to clients should be less than double the amount of registered capital. However, we used up our entire quota of credit by the end of March. This limitation means that we might have to break the contract with our clients. ORG D (13 July 2011)*
5	Inability to expand business into new geographic areas due to difficulties in obtaining regulatory approval	3 out of 5	2 out of 3	*It is already difficult to find new clients. If we were permitted to set up more branches covering a wider geographical area, the situation would be better. ORG G (30 June 2011)* *In 2007, the local government allowed us to expand into two new districts. However, in 2008, the CBRC introduced new regulations which prevent MCCs from opening outside of areas in which they are initially registered. As a result, they requested us to close down two of our sub branches. ORG A (15 July 2011)*

Table 2.4 Use of informal institutions to manage institutional deficiencies

Name of organisation	*Use of informal institutions to support business activities*	*Indicative comments from representatives and loan officers*
Organisation A	Developed relationships with provincial government to attain temporary business license Found a business partner with strong relationships with provincial government	*We have built* guanxi *[connections] with provincial leaders in order to obtain a new business license … getting a license depends on* guanxi, *not regulations. Representative (15 July 2011)* *The non-transparent connections behind government and local business also presented a challenge when we first established. In order to succeed in China, it is important to have a well-known partner that has* guanxi *with the local authorities. Representative (15 July 2011)*
Organisation B	Lend through local partners with strong government connections	*In order to build support with the Chinese government authorities, we conduct our lending through Chinese partners, rather than do it by ourselves. Representative (18 July 2011)*
Organisation C	Obtained support from government and quasi-governmental bodies to get license and ongoing support	*We have built close relationships with local government and quasi-government bodies in order to get our business license. This cooperation has enabled us to operate well within our lending areas. Representative (30 May 2011)* *We actively look for government partners, such as the Poverty Alleviation Bureau, the Women's Association, and the Labor Union. We often get referred to these local government bodies through an introduction from someone within China's microfinance advocacy community Representative (30 May 2011)*
Organisation D	Hire staff recommended by local government	*We hire staff recommended by the local government to collect information from the local area. This enables us to show respect to local authorities. Representative (13 July 2011)*

(continued)

Table 2.4 (continued)

Name of organisation	*Use of informal institutions to support business activities*	*Indicative comments from representatives and loan officers*
Organisation E	Rely on network of village accountants to build legitimacy in rural areas	*To find new clients, we mainly depend on village accountants. Village accountants are members of the village committee [rural government]. They keep track of every economic transaction made by villagers and know them very well. They enjoy very high respect among villagers. Since many of the loan officers from our institution are not from the village they are responsible for, we have much less local knowledge than the village accountants. The village accountants not only help us to build relationships with new clients, but also help us to maintain client relationships. For example, they help us to supervise clients and to communicate with them. It seems it would be very difficult to avoid our dependence on village accountants during the next few years. Loan Officer (5 July 2011)*
Organisation F	Obtained strong support from quasi-governmental body in order to attract donations	*We build strong relationships with the Chinese government in order to obtain adequate financing from overseas donors. Representative (29 June 2011)*
Organisation G	Obtained support from government and quasi-governmental bodies to get license and ongoing support	*In order to get a business license in China, we need to get the support of government. In order to do this, we need to have* guanxi *with government leaders or their friends. Representative (30 June 2011)* *'Public interest' MCCs are prohibited from operating unless they are supervised by a government department. We need to follow their guidance. However, it is difficult to gain their support if you don't have personal relationships with senior government officials. Representative (30 June 2011)*

2.9 Influence of Formal Institutions on Chinese Microfinance

The analysis of the interview data highlighted five main deficiencies arising from the existing formal institutional framework in China in terms of its effect on the business activities of microfinance providers. Table 2.3 presents the main themes highlighted by organisations and indicative quotations from their representatives provided during the interviews to illustrate how such deficiencies affect their business operations.

It was clear that the formal regulatory framework influenced MCCs and VTBs in different ways. Respondents from the majority of MCCs highlighted three main deficiencies in the formal regulatory environment that affect their business activities: (1) their inability to accept savings deposits, (2) the lack of an appropriate regulatory framework for 'public interest' microfinance providers in China and (3) their inability to expand business operations. The first two deficiencies arise from the fact that MCCs (unlike VTBs) are not covered by most of the regulations introduced to govern the Chinese microfinance industry (He et al. 2009). Being outside the formal regulatory framework, and consequently being unable to accept savings deposits, means that MCCs typically have irregular access to capital and insufficient cash flow to cover financing and operating expenses. This subsequently hampers their ability to grow and expand. One MCC also highlighted that not being part of the formal financial system also adversely affects their ability to build legitimacy with potential customers and to hire staff.

In contrast to MCCs, VTBs suffer from different constraints arising from deficiencies in the formal regulatory environment. Although they are able to accept savings deposits, they are hampered by expansive state controls that hinder their ability to operate effectively. For example, at the time of this study, respondents from two of the three sampled VTBs explained that their inability to charge higher risk-adjusted interest rates due to the imposition of interest rate caps by the regulatory authorities made it difficult to earn a sufficient return on small-scale loans, given their higher administrative and monitoring costs relative to larger loans.[1] As a result, these respondents explained that, to remain economically viable, they have gravitated from making smaller loans to poorer clients to making larger loans to wealthier clients, in order to contain administrative costs. Two of the three VTBs also highlighted difficulties in expanding lending activities due to the imposition of a low deposit–lending ratio by regulatory authorities.

Of all of the institutional constraints identified by respondents, only one was cited as having a significantly adverse effect on the business operations of both the MCCs and VTBs in our sample—namely the regulatory restriction on geographically expanding business operations outside of the organisation's original area of registration. Respondents from five of the seven organisations highlighted this as a factor that has a significant negative effect.

2.10 Influence of Informal Institutions on Chinese Microfinance

To overcome deficiencies in the formal institutional environment discussed in the previous section, analysis of the interview data revealed several means by which the microfinance providers in our sample used informal social and cultural institutions to build legitimacy and support the development of business operations in China. Table 2.4 presents the main ways in which organisations have used informal institutions to support business operations, accompanied by indicative quotations from their representatives.

Respondents from all of the MCCs and VTBs sampled emphasised the need to build strong relationships with the government to operate effectively in China. Informal connections with the government were especially important to the MCCs, who depended on these relationships to smooth the process of seeking regulatory approval in order to start up and develop business operations. Three of the four MCCs in our sample highlighted how they had built informal connections with government officials at the local and provincial level—either themselves or through intermediaries—in order to expedite entry to the Chinese microfinance industry. In addition, both MCCs and VTBs emphasised the importance of building informal relationships with the local government to establish legitimacy within the communities in which they operated—particularly given their relatively short operating history compared to other local lenders. Strategies included using government-affiliated village accountants as loan officers and hiring indigenous staff with well-established local government connections.

2.11 Discussion

The microfinance literature has largely neglected the role of the formal regulatory environment and more informal sociocultural institutions in shaping the development and operation of the microfinance industry

in the context of emerging economies (Battilana and Dorado 2010). Similarly, the literature applying institutional theory to China and to entrepreneurship has generally not addressed the specific realm of microfinance. In the present study, we answer the calls of researchers to investigate how institutions have shaped the development of microfinance in emerging economies that are characterised by a weak and ineffective institutional environment (Khavul 2010). We also make an additional contribution to the microfinance literature by examining how the institutional environment influences the operations of nonprofit MCCs and more commercially oriented VTBs in different ways. While microcredit is considered to have a generally positive influence on the well-being of loan recipients and fills a critical gap when traditional banks fail to serve poor residents (Cowton 2010), its reach and concomitant benefits are constrained by these institutional factors.

In examining these issues, we apply the Helmke and Levitsky (2004) typology to examine how informal institutions work alongside more formal institutional frameworks to influence the operations of microfinance providers in China. Within this context, our interviews revealed that, with the Helmke–Levitsky framework, both MCCs and VTBs rely on substitutive informal institutions to support their business activities. We found that China reflects many of the norms of an emerging economy in terms of an underdeveloped formal institutional environment, yet exhibits unique institutional characteristics because of the high levels of state control over the economy (Boisot and Child 1988; Child 1994). This includes a constraining role for regulatory institutions (Boisot and Child 1988; Peng and Heath 1996) in the case of VTBs, and the lack of a supportive regulatory structure or legal status for MCCs, constituting not a 'vacuum', but an 'institutional void' (Mair and Marti 2009). In other words, our analysis suggests that the Chinese institutional environment affects MCCs and VTBs in different ways due to their differential regulatory status within China's financial system.

The objective of this paper is to better understand two key questions that remain unaddressed in the microfinance literature: to what extent have the formal regulatory frameworks established by China's governing bodies affected the business models adopted by microfinance institutions in China, and to what extent have informal institutions helped or hindered the development of the Chinese microfinance industry? Through the interview process, we found that the answer to these questions differed significantly depending on whether the microfinance provider was operating as a VTB or an MCC.

2.12 Formal Institutional Influences

In terms of formal institutional influences, Chinese VTBs are regulated because they fall within the scope of China's formal financial system. One strategy China could pursue to promote the development of microfinance is to strengthen and support the effectiveness of formal institutions such as VTBs and the agencies that govern them. Currently, regulatory constraints reduce the incentive to make risky small loans, thereby leading to larger average loan sizes that crowd out rural entrepreneurs. As a result, these smaller borrowers must rely on informal financial networks to obtain their needed funding. One strategy policymakers could employ to foster a more robust and competitive microfinance industry to stimulate rural development within the formal financial system is to modify interest rate regulations on VTBs. Given the low penetration of microfinance lending in China, recent loosening of the interest rate cap will reveal whether this triggers growth.

Further enhancing the effectiveness of formal institutions would involve increasing the clarity and predictability of VTB oversight provided by the CBRC and PBOC, especially with respect to regulating the amount of credit available for lending. This would help strengthen credibility and relationships between clients and VTBs. Similarly, softening restrictions on geographical expansion for both VTBs and MCCs would better allow the sector to serve clients, especially in rural areas with dispersed populations. In particular, policymakers might reduce geographical constraints on rural VTBs, while retaining them on the urban financial institutions that such policies are arguably designed to monitor.

While excessive or poorly conceived regulations characterise the formal institutional environment governing VTBs, the lack of an established regulatory framework characterises the formal institutional environment governing MCCs. In general, the MCC respondents reported that the absence of a formal legal or regulatory framework inhibits their development by delegitimising their operating activities. The respondents explained that this lack of legal standing leads to a diminished reputation, thereby limiting development by constraining their ability to attract quality staff and customers. MCCs' lack of legal status and resulting inability to collect deposits lead to irregular access to capital through reliance on an unpredictable and irregular stream of donor funding. Indeed, since the collection of data for this study, one of the NGOs studied ceased operations largely due to funding constraints. To enhance the

development of Chinese MCCs in order to aid in poverty alleviation, our findings suggest that policymakers should consider providing them legal status and permit them to accept deposits. In the context of the Helmke–Levitsky typology (Helmke and Levitsky 2004), strengthening the effectiveness of formal institutions may reduce the need for substitutive informal institutions. In this case, providing a regulatory framework to govern MCCs would legitimise them by making them official members of the formal financial system. Another scenario described by the Helmke–Levitsky typology permits very strong informal institutions to 'crowd out' formal institutions, as reviewed below.

2.13 Informal Institutional Influences

The absence of a legitimate legal and regulatory framework to govern MCCs and the ineffective and inefficient regulatory structures controlling VTBs have led to dependence on informal institutions and networks by many rural borrowers in China, resulting in a suboptimal mechanism for fostering rural poverty reduction. The poorly conceived regulatory environment governing China's microfinance industry poses a significant challenge to the development and realisation of its mission. Most private individuals in China have been excluded from its formal financial sector; thus, informal financing mechanisms—such as borrowing through social and family networks—have established themselves as a means of filling the institutional gap. Over time, these informal financing channels have become pervasive, particularly throughout social and political structures in rural areas of the country. Geographical separation and low levels of out-group trust have led to a continued reluctance by many rural Chinese residents to seek formal financing from outside their immediate social networks. This has constrained the development of formal microfinance organisations—particularly 'outside' organisations that do not have strong ties to local communities.

Thus, to succeed, formal microfinance organisations must integrate themselves into local member-based institutions, such as village accountants, and employ loan officers with well-established connections with the local community and local government. This is particularly true for 'public interest' MCCs, which are unable to operate without the close cooperation of local government officials. As noted above, providing effectively structured legal status for MCCs should support industry growth and competition, thereby leading to expanded and more

affordable financial services options for the Chinese population and ultimately resulting in reduced rural poverty.

Within the context of the Helmke–Levitsky typology, informal institutional structures have developed as substitutes to fill the formal institutional void that has resulted from the regulatory constraints plaguing VTBs and the absence of legitimacy confronting MCCs. Incomplete and/or ineffective institutional structures (Estrin and Prevezer 2011), coupled with compatible interests between industry actors and government officials (Ahlstrom et al. 2008), have led to the development of a largely supportive informal institutional environment. For the informal institutions themselves, spanning institutional voids is difficult and complex because it involves high levels of ambiguity and risk (Tracey and Phillips 2011). However, as noted by Helmke and Levitsky (2004), informal structures such as *guanxi* play a crucial role in achieving desired goals within China's authoritarian systems.

Finally, a prominent feature of emerging economies is that the institutional environment within which they operate is generally dynamic and immature. In fact, according to Meyer (2001), 'the essence of economic transition is the replacement of one coordination mechanism by another. Yet efficient markets depend on supporting institutions that can provide … the formal and informal rules of the game of a market economy' (p. 358). Thus, the formal institutional structures governing China's microfinance industry—though currently immature and unsupportive—could be expected to change and perhaps improve over time. Within the context of Helmke and Levitsky's (2004) typology of informal institutions, as the formal institutional structures governing China's microfinance industry move from being relatively ineffective to effective over time, informal financial networks could become complementary or accommodating, depending on the extent to which the goals between actors in formal and informal institutions are compatible.

The results of this study provide a point of reference for additional research about the influence of formal regulatory and more informal sociocultural institutions on the development of microfinance in emerging economies. Conceptualising the development of China's microfinance industry within the context of the Helmke–Levitsky typology of informal institutions also helps shape our understanding of the importance of the interface between the formal and informal institutional environment in developing supportive financial resources to help alleviate poverty by using the bottom-up approach—as envisioned by

the originators of microfinance. Given the current global economic conditions—characterised by austerity and reduced government spending that seems likely to constrain the aid designed to support the disadvantaged—the results of this paper could be instrumental in providing guidance to microfinance organisations, government officials and policymakers in emerging economies about how to support the development of this important industry and its role in reducing global poverty.

2.14 Concluding Remarks

As with all research, this study has certain limitations. The findings of this study must be understood within the context in which the research was undertaken, and cannot necessarily be generalised to other emerging economies, given the significant institutional differences found in the Chinese environment. Future research should be undertaken in the different institutional contexts existing in other countries to establish how institutional differences have led to divergent models of microfinance being adopted across the globe. In particular, research employing the Helmke–Levitsky typology could be conducted in other rapidly growing and emerging countries with large populations of rural poor to establish whether microfinance providers face similar or different institutional constraints and gaps to those encountered in China. Cross-cultural research could enable identification of common institutional characteristics that best support the development of microfinance. Additional research within China could focus on developing a model for better inclusion of MCCs within a structural framework that overcomes institutional deficits, without imposing additional constraints. Such research would move the field further towards the vision of an institutional order that fosters inclusive finance and access to credit (Chakrabarty and Bass 2014; Hudon 2008).

The present study contributes to the growing literature applying management theory to microfinance (Battilana and Dorado 2010; Bruton et al. 2011), as well as ethical discussions on ensuring access to credit among the world's poorest residents. Using in-depth interviews with respondents from microfinance organisations in China, our research highlights the importance of formal regulatory institutions and more informal social and cultural institutions in influencing the development of the microfinance industry and its resulting reach to clients. Our findings add to a growing body of evidence that institutions are

important and drive the strategic decisions made by financial organisations operating in emerging economies (Bruton and Ahlstrom 2003; Hoskisson et al. 2000; Peng et al. 2008; Wright et al. 2005). This is important given the potential microfinance has to address the severe poverty that persists in China and other emerging economies.

Note

1. In July 2013, China's central bank liberalised upper controls on lending for rural finance, although strict interest rate caps (versus exorbitant rates in some locales, as well as very high rates for 'back alley' lending) continue to be an issue for sustainable microcredit provision in Asia.

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CHAPTER 3

Microfinance for Entrepreneurial Development: Study of Women's Group Enterprise Development in India

K. Naveen Kumar

3.1 Background

Globally, over a billion poor people who live *bottom of the pyramid* are outside the gamut of formal financial services. Out of this number, around 200–400 million live in India. The growing needs of poor people for a wide range of financial services has led to a market-led revolution in microfinance with the development and delivery of a diverse range of financial products and services. Over the last two decades, the sectoral growth and development of microfinance have witnessed through the genesis of heterogeneous institutions and delivery models. Along with been providing flexible, reliable and timely access to financial services, the sector also acknowledges the proven emphasis and inevitability of non-financial services in promotion of microenterprises and capabilities (Sen 1984).

Further, the potential of microfinance has also been recognized in addressing the Millennium Development Goals (MDGs) that focused

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on poverty, health, education and empowerment. Such a focus can be divulged from the address made by the UN Secretary General, Kofi Annan, in the first International Microcredit Summit (2005) who '*underscores the importance of microfinance as an integral part of our collective effort to meet the Millennium Development Goals. The challenge before us is to address the constraints that exclude people from full participation in the financial sector … together, we can and must build inclusive financial sectors that help people improve their lives*'.

The empirical research studies in microfinance have proved that innovations like joint liability or utilization of social capital and trust are instrumental to substitute the physical collateral in availing the timely and hassle-free financial services by the vulnerable poor (Stiglitz and Weiss 1981; Stiglitz 1990; Varian 1990; Besley and Coate 1995; Besley 1994; Ghatak 1999; Morduch 1999). Further, many studies also measured the role played by microfinance in improving the income, assets, employment, food security and empowerment of the clients (Littlefield et al. 2003; Dunford 2006; Hossain 1988; Khandker 2003).

Many believe that microfinance is considered to be an effective tool to fight poverty from the bottom of the pyramid, where larger attention is required towards women and children. Among many, Morduch (1999) argues that one of the key reasons for the successes of microfinance programme across many countries is due to targeting of women, while studies have found that focus on women is generally associated with enhanced repayment, lower portfolio risk, fewer write-offs and fewer provisions (D'Espallier et al. 2011).

As per Census 2011, in India, out of 1.221 billion population, 21.9% are poor and their credit needs are large and heterogeneous as well. Till 1990s, the rural financial system was largely supply driven and the credit demands were met by informal agencies with lack of presence of formal institutional and delivery mechanisms. At this time, India experienced poor repayment rates in subsidy-driven lending approach and microcredit experience of Bangladesh and other South Asian countries gained popularity due to good repayment rates and proved that lending to poor is profitable. The new microfinance approach transformed the poverty alleviation exercise into a business opportunity through aligning business models through joint liability lending. In India, RBI was advised the banks to consider mainstreaming lending to SHGs as a part of new microfinance approach for their rural credit operations.

SHG-Bank Linkage programme, which is the largest microfinance programme in the world, is a strong intervention in financial inclusion for the bottom of pyramid. It's a proven platform initially conceived for increasing the outreach of basic banking services among the poor; particularly women, it has since graduated to a programme for promotion of livelihoods and poverty alleviation. The approach was enabled the financial inclusion of 101 million households through 7.9 million SHGs with deposits of about INR 1,36,914 million and loan outstanding of nearly INR 5,71,192 million (NABARD 2015).

Since the microfinance approach of SHG-BLP is more than 25 years old, a number of studies have already examined the impact of microfinance on various aspects as noted above, and there is less evidence available in India on impact of microfinance on enterprise development. Therefore, this chapter examines the role played by a MFI in enterprise development and finance as well as its impact on income and employment of female entrepreneurs in rural areas.

The rest of the paper is organized as follows. Section 3.2 describes the methods and study site used in the study. In Sect. 3.3, a brief about SKDRDP's interventions in Microfinance and Microenterprise Development is discussed. In Sect. 3.4, case studies of sample microenterprise units of SIRI are presented. Section 3.5 presents results and discussion, and Sect. 3.6 concludes and derives some policy recommendations.

3.2 Methods and Study Site

To investigate the initiatives of microfinance programme in promoting enterprise development and its impact on income and employment of female entrepreneurs, the study draws on both the qualitative and quantitative data pertaining to input factors as the type of assistance availed like credit, forward and backward linkages and its contribution to household welfare through improvement in household income, employment, asset, etc., as an outcome factor.

In this chapter, materials are drawn from a case study of *Shri Kshetra Dharmasthala Rural Development Project* (SKDRDP), a non-profit microfinance institution that is based in the state of Karnataka, India. Working with the poor communities of the coastal districts of the state, it offers various financial and non-financial services to its members through the self-help group approach. SKDRDP is one of the largest microfinance institutions in the country with a gross loan portfolio of US$231,432,601

and 1,805,303 of active borrowers. The MFI is selected purposively based on its wide outreach of SHG formation and financial linkages (see Appendix Table 3.5). In addition to promoting and financing individual livelihood activities, SKDRDP has promoted a number of group enterprises by financing them, by training the potential entrepreneurs and also by assisting their business management. To smoothen the enterprise development and finance, SKDRDP was started a special Section 25 Company *Shri Dharmasthala Siri Gramodyoga Samsthe* (from here on words called as SIRI) with the mandate of much needed backward and forward linkages for rural women for taking up various farm and non-farm-based microenterprises. In this study, we have made study visits to SKDRDP and SIRI to understand its working and management.

SIRI works in 295 villages in the state of Karnataka, having production centres run by SHG members. Products like ready-made garments, incense stick rolling (local name is Agarbathi), confectionaries, travel bags, detergents are produced and sold under the SIRI brand. Since microenterprise units are scattered over various regions in the state of Karnataka, *Belthangady* (sub-district) was identified as a study site, because the oldest operational area of SKDRDP along with large number of microenterprise units is operating in this area.

> For this study, representative sample of four microenterprises engaged in food, chemical, textiles and rexine units were selected. The details of the sample microenterprise units are discussed in the subsequent part of the chapter. Further, 10 members from each of four microenterprise units were randomly selected, which makes a total of 40 female entrepreneurs. Each sample entrepreneur was approached with a structured questionnaire to gather quantitative and qualitative information pertaining to socio-economic conditions, skills enhancement, employment, income and so on. The field study was carried out during the months of May and June in 2011. The data collected were compiled and analysed using basic statistical techniques and presented in simple statistical tables.

The finding of the study is derived based on the data collected from the four case studies of enterprises units and its members. The impact measurement variables like income and employment are not studied through an 'experiment research design'; hence, results are drawn on the basis of descriptive statistics and generalizations are made on limited institutional context only.

3.3 SKDRDP Interventions in Microfinance and Microenterprise Development

SKDRDP operates in the southern part of the Karnataka state in India as a non-profit legal entity. It is one of the largest NGO-MFI in the country which works on 'integrated approach' or 'maximalist approach' of rural development. This is a more 'holistic approach' for rural development through providing financial and non-financial services including credit, savings schemes, life and health insurance products, community development, living environment, empowerment, rehabilitation, education and financial literacy business training. The integrated approach (Fig. 3.1) of SKDRDP takes a more holistic view of the client. It provides a wide range of 'microfinance-plus' services, like financial and social intermediation, enterprise development and social services.

Majority of the women in rural south Karnataka (South Canara district) engaged in commission-based employment in *beedi rolling* (local cigarettes made out of tobacco). Most of the *beedi* manufacturing units are in the unorganized cottage sector. It is completely labour-intensive, 'home-working' and seasonal (input availability) sector. The sector predominantly lacks unionization; as a result *beedi* rolling labour gets very low wages (Giriappa 1987). During 2001, there was a major campaign against the dangers of tobacco on health, particularly for women and child. When this occupation was in the process of collapse, the *beedi rolling* workers had neither any occupation left behind nor they were skilled to involve themselves in any other rural entrepreneurial activity. As a result, poor women could not find enough livelihood even from other farm and non-farm sector. In the meantime, SKDRDP promoted

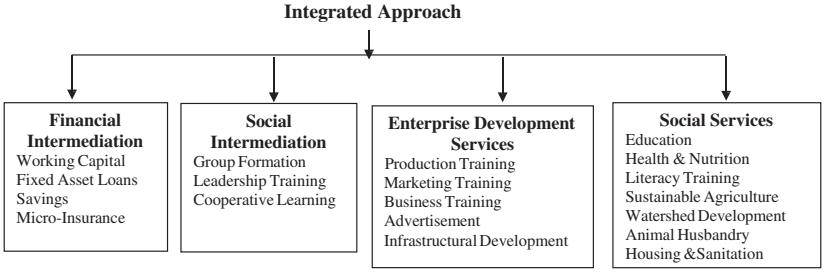

Fig. 3.1 Integrated approach of SKDRDP *Source* Authors framework

a number of female group (SHG) enterprises in order to provide some replacement employment and income. Many SHG groups started working in variety of enterprise activities, and they could find success in production, but they usually failed to market them. SKDRDP was unable to deal with so many different enterprise products and their quality and marketing issues, and planned to set up a separate entity to promote and support female enterprises, is called as *Shri Dharmasthala SIRI Gramodyoga Samsthe* (SIRI).

3.3.1 Shri Dharmasthala SIRI Gramodyoga Samsthe (SIRI)

SIRI is an intermediary institution was set up in 2001 as a not-for-profit company, with a special objective to provide supply and marketing services to the microenterprise units. It provides 'backward' and 'forward linkages' for rural women to undertake various farm and non-farm income-generating activities through microenterprises. The institution is registered under Section 25 of the Indian Companies Act 1956 and non-profit distributing company promoted by rural people with the share capital of US$52040.82, out of which US$11224.49 was contributed by SKDRDP and remaining US$40816.23 by 2000 SHG members contributing US$20.41 each. The company has its head office in *Belthangady*, around 25 kilometres away from then SKDRDP head office.

The company SIRI provides backward linkages like encouraging and motivating women SHG members to take individual or group microenterprise activities, providing entrepreneurial and technical skills through trainings and exposure visits. It facilitates the SHGs to get finance from SKDRDP or other commercial sources, assisting the enterprise units to find the raw material suppliers, and buys from them in bulk so that enterprises can reduce their marginal cost of production. SIRI also assist the enterprises on purchase of machineries and construction of work sheds and packing houses.

Most importantly, SIRI provides forward linkages to the microenterprises, wherein it acts as the marketing arm for all enterprise units. It provides the marketing assistance like sales representatives to cover the local areas and has set up special *SIRI* outlets in some villages and nearby towns and cities. Dealers have been identified in more distant towns and local sales are also made through sales representative (door-to-door service) and through specialized marketing vans. It helps the microenterprise units to designs and quality control; it had developed the common

brand and helps in advertising the SIRI products through print media and electronics media. It also helps the enterprise units in managing their accounts and consultations on local sales taxes.

Table 3.1 presents the quick overview on the operation of the SIRI microenterprises. It is apparent from the table that 73.28% of microenterprise units are producing *incense sticks* with an employment of 87.98% members. Since *incense sticks* production is more of labour-intensive and less skill-oriented production than others, more number of microfinance

Table 3.1 A snapshot of SIRI operations

Nature of product	*No. of microenterprise units (%)*
Food products	8.78
Chemical products	2.29
Incense sticks	73.28
Textiles	5.73
Rexene	3.05
Areca leaf plates	6.87
Total	100 (N = 262)
No. of SHG members involved in microenterprise	
Nature of product	No. of SHG members (%)
Food products	3.05
Chemical products	0.82
Incense sticks	87.98
Textiles	5.68
Rexene	1.53
Areca leaf plates	0.94
Total	100 (N = 4261)
Turn over of SIRI (in US$)	
2004	321653.06
2005	926836.73
2006	2013734.69
2007	2109306.12
2008	2540795.92
2009	2488693.88
2010	2881734.69
Total number of employees in SIRI (other than SHG members)	
Type of employment	No. of members
Administration	49
Marketing and production	49

Source Primary survey

members depend on this employment. Members of the units have an option to make the *incense stick* at the unit sheds, or they can carry the raw materials to their individual household; where along with their household work, they can earn some extra income. In the post-production stage, the members will bring back the final products to the SIRI units, and thereafter, the packing, grading and marketing are done by the SIRI marketing division. Based on the individual production, the payments are made at the group level.

Over the course of 7-year (2004–2010) period, the turnover of SIRI grew from $321,653.06 to $2,881,734.69; its simple compound annual growth rate (CAGR) is 36.78%. However, the CAGR for over the period of 7 years is only 13.69%. As of June 2011, there were a total of 98 members employed in SIRI to look after the administration, production and marketing.

3.4 Case Study of Sample Microenterprise Units of SIRI

SIRI, a unique brand of consumer goods produced and marketed by rural women of Coastal Karnataka. The microenterprise units of SIRI blend the traditional flavours along with modern production skills. Hence, it is the realization of *Mahatma Gandhi's* dream of *Gram Swaraj* (village with 'self-rule' and 'self-reliant') wherein the products from one village are consumed by those in other villages. Working from 500 villages of Coastal Karnataka, more than 5000 rural poor women are engaged in producing almost 50 different products.

For the empirical analysis, the sample of four microenterprises was selected purposively to represent the food, garments, chemical and rexene units, respectively, in the study. These sample enterprises are set up by the SHG members in period 2001–2004.

The food unit was established in the year 2003 with loan from *Karnataka Village Industries Corporation* (KVIC) and *Swarnjayanti Gram Swarozgar Yojana* (SGSY). It produces a variety of food items. There were 28 members when it was started; presently, 18 members are working in the unit. Ten members have left because of old age, marriage and other domestic reasons. Members working are of the age group starting from 19–65 years. This signifies that the unit provides livelihood to all age groups. Majority of the members contribute 25–50 percentage

of their total family income. They get full employment throughout the year. Before joining this unit, many of the members were engaged themselves in *beedi rolling* activity which was the major source of employment to them; per month average wage earnings of the members were around US$13.17. They worked for 15–20 days in a month depending upon the availability of raw materials for beedi rolling. However, after joining microenterprise unit, per month average wage earnings of the member is US$65.11 with 26 days of employment per month.

The garment unit was established in the year 2004 with a loan of US$18244.9 from SGSY. They produce shirts and other garments. Now they undertake the work of preparing school uniforms and uniforms for other institutions also. There were 51 members initially at the time of starting the unit. At present, there are only 24 members working in the unit. Many have left because of personal reasons like old age, marriage and domestic reasons. Members who work here belong to the age group of 18–30 years, and they have the primary or high school education background. Majority of the members contribute about 25–50% to their family income. Almost half of the members were doing beedi rolling work before joining this unit and were earning around US$12.35 per month (per member) depending upon the availability of work and their ability. At the time of study, per month average wage earnings of a member were US$75.40 per month.

The chemical unit was established in the year 2001 with SGSY loan of US$2040.82. The unit currently operates in a rented building. There are ten members working in the unit. This unit produces white phenyl for which there is good demand in the market. Majority of the members who work here are working right from the starting of the unit. Before joining this unit, they were doing beedi rolling work where they used to get US$11.25 per month. Presently, per month average wage earnings of the member are US$70.20. Majority of the members are earning nearly 50% of their family income.

The rexene unit produces rexene bags and kits. The unit was established in the year 2003, with SGSY loan of US$39591.84. There is an average sales turnover of US$1428.57 per month at the time of study. There are ten members working in the unit. Majority of the members in this unit are in the age group of 20–30 years. Before joining this unit, 90% of them were doing beedi rolling work and they were earning US$12.25 per month. Now they are earning on an average US$78.00

per month. Large number of the members in this unit contributes nearly 25–50% to their family income (Table 3.2).

From the sample entrepreneur units, it is found that majority of the female members are attained only primary education. It was further found that majority of their earning comes from daily wage of family members and some members entirely depend on this unit only for their livelihood. They save a part of their earning in SHGs, and in case of financial need, they take loan from the SHG. It is understood from the discussion that almost all the members in the sample units have micro health insurance along with a compulsorily life insurance policy, *Jeevan Madhura*. Many of the members are of the opinion that their skills have enhanced after joining the microenterprise unit, and this has contributed in improvement of productivity.

3.5 Results and Discussion

3.5.1 Socio-Economic Profile of the Sample SHG Members

The socio-economic profile indicates the livelihood status of the sample population. Therefore, it necessitates studying the socio-economic information of the respondents before getting into the study. The socio-economic characteristics such as age, education and type of family, family size and annual income of the sample households are presented under the four case study units (unit 1, unit 2, unit 3 and unit 4) of SHG microenterprise in Table 3.3.

The average age of the respondents in the sample population is 29.43 years and with maximum age being 64 years. The age of the respondents are categorized under three groups: less than 18, 19–55 and more than 56 years. In the sample, second category population is very high as compared to other categories. It shows that the productive age group population is actively involved microenterprises activities for their employment and income.

The educational levels of the sample members in all four sample units show that more than 50% of the members are having secondary or more than secondary education. In the total sample population, only 5% of the members are illiterate. This reflects that those female members with lower education also get employment through microenterprises. The

Table 3.2 Descriptions of sample microenterprise units

Variables	*Case study units*			
	Food unit	*Garments unit*	*Chemical unit*	*Rexene unit*
Year of formation	2003	2004	2001	2003
Amount of capital (in US$)	4502.32	18244.9	2040.82	39591.84
Sources of capital	KVIC[a] and SGSY[b]	SGSY	SGSY	SGSY
Total number of members in the time of formation	28	51	13	12
Number of members (in the time of study—31 June, 2011)	18	24	10	10
Minimum and maximum age of the members	19–65 years	18–30 years	25–45 yearrs	20–30 years
Status of the members before joining the microenterprise unit				
Employment status of majority of the members	>90% of the members are wage labour in beedi rolling	40% of the members are wage labour in beedi rolling and others are unemployed	70% members were wage labour in beedi rolling and others are unemployed	55% were wage labour in beedi rolling and others are unemployed
Per month average no. of days employment per member	12	12	12	12
Per month average wage earnings of the member (in US$)	13.17	12.35	11.25	12.25

(continued)

Table 3.2 (continued)

Variables	*Case study units*			
	Food unit	*Garments unit*	*Chemical unit*	*Rexene unit*
Status of the members after joining the microenterprise unit				
Employment status of majority of the members (>90%)	Full-time employment[c]	Full-time employment	Full-time employment	Full-time employment
Per month average no. of days employment per member	26	26	26	26
Per month average wage earnings of the member (in US$)	65.11	75.40	70.20	78.00

Note [a]KVIC = Karnataka Village Industries Corporation
[b]SGSY = Swarnjayanti Gram Swarozgar Yojana
[c]Weekly 6 days working except Sundays

Table 3.3 Socio-economic profiles of the sample members

Particulars	*Unit 1 (n = 10)*	*Unit 2 (n = 10)*	*Unit 3 (n = 10)*	*Unit 4 (n = 10)*	*Total (n = 40)*
Age (years)					
Mean	35.7	21.9	35.0	25.1	29.4
Minimum	19	18	25	20	18
Maximum	64	29	45	32	64
Std. deviation	13.8	3.4	8.2	3.5	10.2
<18 years (%)	0	20	0	0	5
19–55 years (%)	90	80	100	100	92.5
More than 56 years (%)	10	0	0	0	2.5
Caste					
SC/ST (%)	30	10	40	30	27.5
OBC (%)	70	80	60	60	67.5
General (%)	0	10	0	10	5
Type of family					
Nuclear (%)	100	50	70	80	75
Joint (%)	0	50	30	20	25
Educational level					
Illiterate (no formal education) (%)	20	0	0	0	5
Primary (1st–5th Standard) (%)	40	10	40	30	30
Higher Secondary (6th–7th Standard (%)	10	10	50	0	17.5
High school (8th–10th Standard) (%)	30	70	10	70	45
PUC (11th–12th Standard) (%)	0	10	0	0	2.5
Annual family income (in US$)					
Mean	1189.88	1357.14	1418.37	1469.39	1358.69
Minimum	541.22	816.33	816.33	1020.41	541.22
Maximum	2040.82	2040.82	2040.82	2244.90	2244.90
Std. deviation	454.45	363.31	434.12	397.24	411.57
Up to $11,500 (%)	0	0	0	0	0

(continued)

Table 3.3 (continued)

Particulars	*Unit 1 (n = 10)*	*Unit 2 (n = 10)*	*Unit 3 (n = 10)*	*Unit 4 (n = 10)*	*Total (n = 40)*
Age (years)					
$11,501–$30,000 (%)	20	0	0	0	5
Above $30,001 (%)	80	100	100	100	95
No. of years membership					
2 and <2 years (%)	0	20	10	0	7.5
3–5 years (%)	20	50	20	20	27.5
More than 5 years (%)	80	30	70	80	65

Source Primary survey

majority of the sample population represents a nuclear type of family system, and it makes both husband and wife to contribute to the family income. The average family income for the sample group population is of Rs. 66576. Further, the sample also depicts from the standard deviation that there is a wide disparity in income across the members. In the sample, 67.5% of the respondents belong to other backward castes and 27.5% belong to the caste category of SC and ST.

3.5.2 Impact of Microfinance and Microenterprise in Improvement in Income and Employment

The efforts of SKDRDP through the delivery of financial and non-financial services have contributed in promotion of employment and income for the rural women. The empirical analysis in this study depicts that all the members of SHGs are compulsorily making their savings to manage their risk and uncertainty along with the contribution on income-generating activities. It is evident from Table 3.4 that 47.5% of the members are saving on an average of US$110.20, which would have been otherwise not possible. The respondents in the study revealed that joining the microfinance groups has enhanced their timely access to credit through SHGs. It is apparent from Table 3.4 that 20% of the respondents have accessed more than US$1020.41 through SHGs and another 27.5% have accessed to a credit range of US$510.21–US$1020.41. Rural women

Table 3.4 Contributions of microfinance and microenterprise in employment and income of rural women

Particulars	*Unit 1 (n = 10)*	*Unit 2 (n = 10)*	*Unit 3 (n = 10)*	*Unit 4 (n = 10)*	*Total (n = 40)*
Savings of the members					
< US$50 (%)	10	0	0	0	2.5
US$50–100 (%)	0	0	60	40	25
US$100 and above (%)	90	100	40	60	72.5
Credit accessed from SHG					
< US$200 (%)	10	60	10	20	25
US$200–500 (%)	20	20	50	20	27.5
US$500–1000 (%)	50	10	20	30	27.5
Above US$1000 (%)	20	10	20	30	20
Investment in microenterprise					
US$10 (%)	100	0	0	0	25
US$20 (%)	0	100	100	100	75
Prior to joining microenterprise occupation of the member					
Beedi rolling (%)	70	30	100	80	70
Agriculture wage labour (%)	10	10	0	20	10
Pursuing education (%)	20	60	0	0	20
Prior to joining microenterprise monthly income of the member					
No income (%)	20	60	0	20	25
US$<15 (%)	0	20	100	80	50
US$16–20 (%)	80	20	0	0	25
Present monthly income of the members					
US$40 (%)	0	100	0	100	50
US$45 (%)	100	0	0	0	25
US$50 (%)	0	0	100	0	25
Member contribution to the total family income					
<25%	0	10	0	20	7.5
25–50%	60	80	60	80	70
50–75%	20	10	40	0	17.5
More than 75%	20	0	0	0	5

(continued)

Table 3.4 (continued)

Particulars	*Unit 1 (n = 10)*	*Unit 2 (n = 10)*	*Unit 3 (n = 10)*	*Unit 4 (n = 10)*	*Total (n = 40)*
Savings of the members					
Average number of workings days (per week/month/year)					
No. of working days in a week	6	6	6	6	6
No. of working days in a month	26	26	26	26	26
No. of working days in a year	310	310	310	310	310
Access to microinsurance					
Yes (%)	80	10	90	10	92.5
No (%)	20	0	10	0	7.5

Source Primary survey

and their family face several health risks in their day-to-day life, and insuring against these risks was not possible for a long time. However, the innovations and diversification in microfinance products have led to easy accessibility of microhealth insurance for rural women and their family. The empirical study reveals that 92.5% of the respondents have accessibility to microinsurance products.

The microfinance movement has built both the social capital and financial capital to promote microenterprise development of rural female with help of SIRI. The empirical analysis shows that 75% of the sample members had an initial share amount of US$20.41 per member and another 25% of the sample members with US$10.21. This has led to the individual's active participation in microenterprises business. There is a paradigm shift in the occupation of the members from beedi rolling, agriculture wage labour to microenterprise building.

In the study area, 80% of the members were depending on uncertain income from seasonal employment like beedi rolling. Prior to joining microenterprise units, 75% of the members monthly income were less than US$16.33. It means that a member on an average earns

US$183.68 per annum. However, after joining microenterprise units 50% of the members earn monthly income of US$36.74, another 25% receive in the income range of US$45.10, and remaining 25% members *(see comments)* receive US$49.00 monthly. This makes clear that the continuous employment in microenterprise units has contributed to the improvement of member's income in the study area. The study also makes an effort to examine the contribution of SHG members to their family income. It is found that 70% of the members contribute with a range of 25–50% to their total family income. Another 17.5% of the members contributed to their total family income at a 50–75%.

Thus from the above analysis, we find that majority of the members in the study area were doing the work of beedi rolling before joining the unit, which is a seasonal employment to them where there is no guarantee of regular work and income. However, after joining the SHG microenterprise units, the members' earnings have increased by 3–4 times, which clearly indicates that entrepreneurial activities provide employment and income to the vulnerable women in rural areas.

3.6 Conclusion and Policy Implications

Microfinance alone will not improve the employment and income of female members, and they need non-financial services to build their own enterprises and livelihood. SKDRDP is not only augmenting savings, lending and ensuring loan recovery, but it also works with 'integrated services' to facilitate their female members get involved in entrepreneurial activities. The results of the analysis suggest that SKDRDP's microfinance for microenterprise development has helped the female entrepreneurs to improve their income and employment. These initiatives have contributed major shift in the livelihood outcome of the members. This study concludes that modern microfinance sector needs a maximalist approach in reducing the poverty and vulnerability of the rural women. However, further research attempts can also be initiated to understand the inter-institutional contribution in the promotion of livelihoods in rural areas.

Appendix

Table 3.5 Selected financial and physical parameters of SKDRDP

Years	*2007*	*2008*	*2009*	*2010*	*2011*
Assets (in US$)	112,917,703	117,300,861	165,501,621	246,469,072	249,801,947
Capital/asset ratio	0.0346	0.036	0.0478	0.0226	0.0212
Debt-to-equity ratio	27.89	26.76	19.91	43.17	NA
Gross loan portfolio (in US$)	85,153,994	96,666,108	136,728,666	215,695,807	231,432,601
Average loan balance per borrower (in US$)	148.1	120.6	111.56	156.02	128.2
Average outstanding balance/GNI per capita (in US$)	0.1559	0.1478	0.0824	0.1053	NA
Return on assets	-0.0023	0.0015	0.0129	0.0103	NA
Operational self-sufficiency	0.983	1.0134	1.127	1.1159	NA
Number of active borrowers	574,968	801,527	1,225,570	1,382,506	1,805,303
Number of borrowers with loans outstanding	574,968	801,527	1,225,570	1,382,506	1,805,303
% of female borrowers	78	65	64	58	NA
Total credit offices	1295	42	34	60	57
Total personnel	1812	2620	3087	3931	5346

Source www.mixmarket.org. *Note* NA = not available

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CHAPTER 4

Perception of Microfinance Debtors and Loan Officers on the Importance of Entrepreneurial and Business Skills for Loan Repayment Rates

Daniel Agbeko, Vincent Blok, S. W. F. Omta and G. Van der Velde

4.1 Introduction

Various researchers have indicated that entrepreneurial competencies are positively related to entrepreneurial success (Baron and Ensley 2006; Baum and Locke 2004; Chandler and Jansen 1992; Ucbasaran et al. 2008).

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This suggests that as individuals acquire skills they perform better in their businesses, consistent with the human capital theory (Becker 1993). For developing countries, entrepreneurial and business training may have positive effects on the business performance of microfinance debtors (Cook 2001; Dumas 2001; Edgcomb 2002; Ekpe et al. 2010; Gray et al. 2011; Karlan and Valdivia 2011).

With regard to entrepreneurial and business training, it remains unclear exactly what set of entrepreneurial competencies explain microbusiness success. Among others, Mano et al. (2012) argue that business planning skills and market orientation skills effectively improve the performance of entrepreneurs, whereas Edgcomb (2002) emphasizes the importance of financial skills such as record keeping and break-even analysis. With regard to microfinance lenders, Karlan and Valdivia (2011) argue that business planning, financial management, customer care and market orientation are the most important entrepreneurial competences. It remains unclear, therefore, exactly what set of entrepreneurial and business competencies should be trained in order to improve business performance and, therefore, loan repayment rates of microfinance debtors.

The objective of this paper is to identify exactly what set of entrepreneurial and business competencies are most important for loan repayment rates. Entrepreneurial skills are defined by Chen et al. (1998), Oosterbeek et al. (2010) and Verhees et al. (2012) as the ability to take risk and be innovate and proactive. Market orientation is defined by Alby et al. (2011) as setting market and profit objectives, and being engaged with market research and analyses. We follow Smith and Perks (2006) definition of business skills as the ability of entrepreneurs to plan their business, keep records, manage their finances and relate to their employees and customers.

We organized focus group discussions with four uniCredit Ghana microfinance loan officers and three microfinance debtors to rank six entrepreneurial and business skills on their relevance for business success and loan repayment rates, i.e. general business management skills, financial management skills, record keeping skills, interpersonal skills, customer relations and market orientation skills.

In the next section, we review the literature on allegedly important entrepreneurial and business skills. Section 4.3 presents the methods used. Section 4.4 discusses the results. Section 4.5 concludes.

4.2 Entrepreneurial and Business Skills

According to the human capital theory, individuals endowed with human capital perform better in executing relevant tasks (Becker 1993). It is expected that MFI debtors with more knowledge and skills will perform better in their businesses. In the absence of entrepreneurial and business skills, people cannot make use of microfinance effectively (Ekpe et al. 2010; Idris and Agbim 2015; Karlan and Valdivia 2011; Mutisya and Yarime 2014). Microfinance should be packaged such that entrepreneurial and business skills development is substantial to MFI assistance (Lensink et al. 2011).

Echtner (1995) states that "entrepreneurship programmes may be one of the most cost-effective means of reaching, educating, and significantly empowering local individuals". Gatewood et al. (1995) establish positive effects of entrepreneurship education on business performance. Baron and Ensley (2006) and Seuneke et al. (2013) relate entrepreneurial experience to entrepreneurial success. There is, however, no consensus as to whether skills training is indispensable for microfinance debtors. Yunus (1999) states that entrepreneurial skills are innate and cannot be trained. McKenzie and Woodruff (2013) examine microbusiness training programmes and establish that in many cases the impact of training programmes on business performance is small and does not affect sales nor profitability. Karlan and Valdivia (2011) found in their study on the impact of business training on Peruvian microfinance debtors "little or no evidence of changes in key outcomes such as business revenue, profits, or employment". A meta-analysis of entrepreneurial training programmes revealed that most studies did not incorporate both pre- and post-training intervention measures (Martin et al. 2013), which makes the results of most studies unreliable.

Factors other than entrepreneurial and business skills may also explain business performance and loan repayment rates. Ntiamoah et al. (2014) and Ledgerwood (1999) establish that loan default is due to small loan size and poor loan monitoring. Sharma and Zeller (1997) relate loan defaults to lack of willingness among debtors to repay and inaccurate loan application reviews by loan officers. Olomola (2000) finds that high interest rates and delayed loan application procedures increase loan default rates. According to Bloem and Goerter (2001), loan default is caused by poor business decisions by the debtor and

unanticipated price changes of merchandise. Kohansal and Mansoori (2009) argue that loan defaults are related to high interest rates imposed by government regulations, monopoly power in the credit market, transaction costs incurred by borrowers and inability of the loan officers to effectively monitor the performance of their debtors. Mensah et al. (2013) observe a negative relation between loan repayment on the one hand and interest rates, moral hazard and over-borrowing on the other. The lower the interest rates, the fewer microfinance debtors divert their loans into new ventures. Loan diversion is a major cause of loan defaults (Bichanga et al. 2013). Bichanga et al. (2013) also identify inadequate supervision of loan officers and lagging macroeconomic growth rates as causes of loan defaults.

4.3 Methods

A research was designed to examine the extent to what microfinance debtors and loan officers agree on the importance of entrepreneurial and business skills for business performance and loan repayment rates. The case for this study is uniCredit Ghana. uniCredit Ghana is a non-bank financial institution and has been in operation since 1995. The primary focus of uniCredit is to provide financial services that are specifically tailored to the needs of micro-, small- and medium-sized enterprises.

uniCredit had 655 microfinance debtors as at 12 November 2013. The entire loan list was downloaded and debtors with loan disbursements more than USD 4000 were excluded from the list resulting in an average loan size of USD 2000. This is to ensure that the sample consists of microfinance debtors only. Staff loans and salary workers loans were also excluded from the list. Three debtors with good loan repayment track records, i.e. debtors who repaid their loans within seven days after due date, were randomly selected. In addition, four uniCredit loan officers were randomly selected.

The total sample consists of seven debtors and loan officers, both females and six males and ages ranging from 25 to 56 years. Seven participants may be considered an optimal sample size because the smaller the number of participants the more participatory the discussions (Kitzinger 1994, 1995). Different researchers have used group sizes ranging from 3 to 12 participants, depending on the purpose of the focus groups (Kitzinger 1994; Kumar et al. 2009; Silverman 2010).

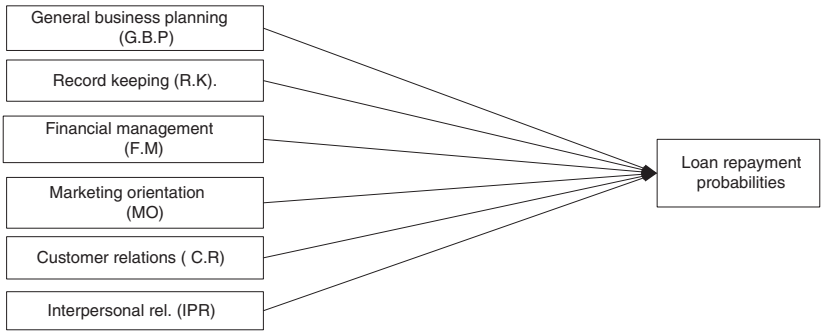

Fig. 4.1 Entrepreneurial and business skills and loan repayment probabilities

We examine the extent to what microfinance debtors and MFI loan officers agree on the importance of entrepreneurial and business skills for loan repayment rates (Fig. 4.1).

We used focus group discussion because approximately 30% of the microbusiness debtors are illiterates. A focus group discussion in the local dialect is most appropriate to involve illiterate debtors. According to Kitzinger (1994), focus groups help participants explore and clarify their views.

Two focus group discussions were organized, for microfinance debtors (three participants) and loan officers (four participants). The focus group discussions took place in the conference room of the Ashaiman branch of uniCredit Ghana Limited. All participants were informed about the purpose and content of the study. Guarantees of confidentiality and anonymity were given prior to each focus group discussion. The participants were given a general definition of the following skills:

1. General business planning (GBP): defined as short-term planning and budgeting skills.
2. Record keeping (RK): defined as bookkeeping and inventory management skills.
3. Financial management (FM): defined as cash flow management skills.
4. Market orientation skills (MO): defined as skills for setting objectives related to market shares.

5. Customer relations (CR): defined as understanding customers' needs and perceptions.
6. Interpersonal skills (IPR): defined as management skills.

The focus groups were then held to discuss the alleged importance of these skills. The researcher acted as the facilitator to generate a free flow of information among the respondents. Afterwards, the researcher wrote a comprehensive script of the two focus group discussions. The duration of the focus groups discussions were 38 and 58 minutes respectively.

The scripts of both focus group discussions were analysed using content analysis. This was done by importing the scripts into Atlas.ti 7.5 software. The coded output was then used for further analysis to examine the extent to what the focus group participants agree on their rankings of the entrepreneurial and business skills.

4.4 Results

The extent to what the focus group participants agree on the importance of entrepreneurial and business skills for loan repayment rates is examined using Cohen's kappa inter-rater agreement statistic and is calculated for the microfinance debtors and the loan officers, as shown in Table 4.1.

Kappa values of 1 suggest perfect agreement; values below 0 indicate absence of agreement (Viera and Garrett 2005). The negative value for kappa (−0.073) indicates that there is no agreement (within group comparison) between the microfinance debtors as to what they think is important for loan repayment rates.

The negative value for kappa (−0.027) suggests that loan officers have diverse opinions as to what skills they think are important for microfinance debtors' loan repayment rates.

Table 4.1 Agreement among microfinance debtors and loan officers on the ranking of skills

	N	*Kappa statistic (within groups)*	*Std. of kappa*
Microfinance debtors focus group	3	−0.073	0.567
Loan officers focus group	4	−0.027	0.430

4.4.1 General Business Management

The focus group discussions showed that debtors, both those with good and those with poor loan repayments, claim that planning is crucial. Some debtors plan their activities on daily, weekly or monthly basis. These debtors indicated, however, that long-term planning would be better. They also stated that the importance of planning depends on the nature of business. Those debtors with good loan repayment typically stock their shops when needed and therefore do not have the problem of expired goods. Those debtors with poor loan repayments typically buy stock in bulk and most often cannot sell all the stock. Most of the inventories expire and therefore cause economic losses. One debtor recounted her experience: "*In July 2013, prior to the Christmas celebrations, I stocked my shop with biscuits and soft drinks, but on the eve of Christmas a new variety of biscuit called Obama biscuits arrived in the country. My biscuits were not being purchased and I ran into big losses. This lesson taught me to be careful in buying goods in bulk*". The loan officers argued that the debtors' poor repayments are due to the debtors' inability to study the market trend and purchase stock accordingly.

4.4.2 Record Keeping Skills

The focus group discussants claimed that accurate record keeping is the practice for not those debtors with good loan repayments nor those with poor loan repayments. The debtors claimed that accurate record keeping is too tedious. Some debtors only record end-of-day total inventories. One debtor narrated her ordeal: "*We have employed several shop assistants and all of them stole from the shop, even though they keep very good accounts of our business. I do not see the need for record keeping because now I run the shop with my wife, at any point in time one of us is present, so no need to keep records. However, we try to keep some records because the loan officers use records as a prerequisite for loans*". Record keeping is therefore practice for most debtors, albeit provisionally. The loan officers also emphasized that record keeping is a prerequisite for loan acquisition.

4.4.3 Financial Management Skills

The focus group participants do not pay themselves fixed salaries. Rather, they withdraw very little money from their businesses for personal

expenses. The few debtors who were able to pay themselves fixed salaries stated that they reinvest most of their salaries back into their businesses. Those debtors with good loan repayments differ from those with poor loan repayments in their skills to accurately design profit statements. Whereas those debtors with good loan repayments accurately account for all indirect expenses, those debtors with poor loan repayments simply subtract purchasing prices from sale prices to arrive at estimated profits. One debtor with poor loan repayments stated: "*Even though I do not pay myself a fixed salary, at the end of every month I compute the cost of all the goods I sold, the difference gives me the profit, so I have the confidence that my business is not operating at a loss*". Those focus group participants with good loan repayments claimed to have adequate financial management skills.

4.4.4 Market Orientation Skills

The focus group participants argued that setting objectives related to market shares, sales, profits, establishing a position in the product market and conducting market analyses are strategies for large corporations rather than for microbusinesses. The debtors with good loan repayments, however, expressed their interest in future business expansion, whereas those debtors with poor loan repayments did not. One debtor with good loan repayments commented: "*In fact, setting goals related to market shares and conducting a research so as to position myself strategically in the market is not important at all, what is important is just to handle the customers well!*" The loan officers explained that most of the debtors are semi-literates and therefore cannot conduct accurate market analyses.

4.4.5 Customer Relations Skills

The focus group discussions revealed that those debtors with good loan repayment records relate warmly to their customers and regularly have telephone contacts with most of their customers. Those debtors with good loan repayments sometimes sell on credit. Debtors with good loan repayments also discuss the specifications their customers need and supply it accordingly. This strategy allegedly improves sales. One debtor with good loan repayment stated "*I am very friendly with my customers, and I always call them so I know exactly what they need, sometimes I even buy goods from my suppliers and sell it without bringing the goods to the*

shop, this way I make high profits". Excellent customer relations skills are therefore key to loan repayment. The loan officers explained that customer relations skills distinguish those debtors with good loan repayments from those with poor loan repayments.

4.4.6 Interpersonal Relation Skills

Those focus group participants with good loan repayments argued that the relationship between the shop owners and their employees is important. The interpersonal relationship between owner and employees translates into the way the employees handle their customers. Those debtors with poor loan repayments argued that most employees cannot be trusted and therefore prefer autocratic relationships with their employees. The loan officers explained that shop owners typically prefer working with close relatives, because most of the shop attendants are not faithful in their duties. The loan officers further emphasized that in the Ghanaian community, if shop owners become too close with their staff, their staff will no longer respect them. Autocratic relationships between owner and employees are therefore best.

4.5 Conclusions and Discussion

Among others, Edgcomb (2002) argues that for developing countries, entrepreneurial and business training may have positive effects on the business performance of microfinance debtors. Karlan and Valdivia (2011) establish that business training does not systematically improve microfinance debtors' performance in terms of business revenue, profits or employment. The present paper examines the extent to what microfinance institution (MFI) debtors and loan officers agree on the importance of entrepreneurial and business skills for business performance and loan repayment rates. Two focus group discussions revealed that microfinance debtors do not agree on what skills they think are key. This result suggests that every single microfinance debtor has specific needs for acquiring skills. Training programmes should therefore be tailored towards the needs of the individual entrepreneur.

Disagreement among microfinance debtors on the relevance of entrepreneurial and business skills proves more pronounced for specific skills. Focus group discussions revealed that financial management skills and interpersonal skills are most controversial. Particularly, those debtors

with good loan repayments acknowledged the relevance of these skills for business success. Those debtors with poor loan repayments did not recognize the need for financial management and interpersonal skills. To some extent, there is consensus on the advantages of general business management skills and customer relations skills. To some extent, there is also consensus on the irrelevance of record keeping skills. Microfinance debtors do not acknowledge the advantages of accurate record keeping and account for their transactions only provisionally.

Consistent with the lack of consensus among microfinance debtors, MFI loan officers have diverse opinions as to what skills they think are important to enable microfinance debtors repay their loans promptly. For loan officers to adequately evaluate loan applications and support microfinance debtors, they need training to better understand the relevance of entrepreneurial and business skills for microfinance debtors' loan repayment probabilities.

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CHAPTER 5

Choice of Finance in an Emerging Market: The Impact of Independent Decisions, Politics and Religion

Nurhan Davutyan and Belma Öztürkkal

5.1 Introduction

A large body of research analyzes individual saving and borrowing choices which is reflected in their use of financial products. Many comparative global studies documenting the beneficial impact of financial inclusion on growth are available to guide policy makers. Allen et al. (2016) report a country's level of financial inclusion is positively related to its prosperity. Thus, increased financial inclusion goes hand in hand with stronger civil rights, more stable polities and lower transaction costs. Cihak et al. (2012) link

KONDA is a well-known polling firm renowned for the accuracy of their electoral predictions.

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financial sector development to poverty reduction and economic growth where improvements in financial sector development eliminate market inefficiencies and reduce costs. The more people are able to use the financial system and its products the more they will be able to use its mechanisms for converting savings into investment. Han and Melecky (2013) look closely to the synergy between financial inclusion in deposits and financial stability during times of crisis in 95 countries through 2007–2010. Their findings show that a diversified deposit portfolio enhances banking stability for the whole financial system. Banks can use their diversified deposit base to manage liquidity risk, and this is more likely in developing middle-income countries with higher levels of trust.

Demirgüç-Kunt and Klapper (2012) analyze aggregate adult saving and borrowing behavior in 148 countries for a large sample of 50,000 people. They find that only half of the world's adult population have an account in a financial institution. In developed countries, this rate is 89%, and in developing ones, it falls to 41%. Worldwide, only 22% of the adult population save and only 9% use formal loans, i.e., borrows from a bank or financial institution as distinct from family or friends. Income, gender and education bear on attitudes toward saving. Also, differences exist between developed and developing countries. In developed countries, mortgage loans dominate, whereas in developing ones' health and emergency loans are more important. Turkey ranks high for the number of credit card holders together with Latin American and European countries. More than 30% of adults have borrowed in the last year, and in addition to banks, friends and family are a major source. These findings are similar to those reported by Allen et al. (2016) study of 124,000 individuals from 123 countries. They report cost, documentation, physical distance to bank branches reasons for not having a formal account. Older, wealthier, urban, educated, employed, married or separated individuals have higher rates of bank account ownership. Allen et al. (2016) look at correlates of account ownership, saving habits and account use frequency. They find that 42% of account holders save with no gender or regional differences in saving attitudes.

Looking at Turkey from this perspective, we note 58% of Turks have a bank account compared to 33% of Argentinians, 53% of Brazilians, but 98% of Germans (Demirgüç-Kunt and Klapper 2013). Given that Argentine, Brazil and Turkey are middle-income countries whereas Germany is a high-income one, these figures are not surprising. The same study reports Turkey's share ownership rate to be less than 2%

of the population. This is certainly quite low. Two major financial crisis Turkey experienced in 1994 and 2001 and some minor ones provide an explanation. This led to the bankruptcy of several banks and brokerage houses. There were a total of 25 bankruptcies, transfers or mergers through 1994–2003. The total number of banks in Turkey, which is currently 47, was 66 in 1990 and 79 in 2000.[1] It is safe to conclude such financial turbulence contributed to a decline in the public's trust regarding financial assets other than insured bank deposits. Also it should be kept in mind Turkey is an emerging market and use of share ownership together with other financial instruments rises with general economic development (Davutyan and Ozturkkal 2016).

Anson et al. (2013) study 65,000 people from 60 countries with post office accounts and find that poorer, older, less educated, unmarried and unemployed people are more likely to be included in the financial system through post offices. Thus, post offices decrease financial exclusion in the vulnerable segment of society. This study reports 55% of Turkish individuals have account ownership at a financial institution only, and a further 3% at both a financial institution and the post office. The comparable figures for the UK are: 84% of the public have a bank account only, 9% both a financial institution and a post office account and a further 3% a post office account exclusively.

Fungaceva and Weill (2014) study China, the largest emerging market, and emphasize the importance of financial integration, high savings and shadow banking as a source of funding for sustainable growth. They find higher income, educated, male and older individuals display a higher incidence of bank account ownership and loan usage. Accessing informal loans through friends and family is a common source of funding in China. Only 21% of individuals in Fungaceva and Weill's (2014) sample borrowed formally which is the lowest formal funding use among BRIC countries. They report 66% of Chinese individuals have a formal financial account, with women being less likely to have an account or get a loan. This contrasts with findings from global studies showing no gender difference with respect to account ownership. Richer and better educated individuals save less in China compared to global counterparts, which can be explained by the overall high Chinese savings rate. Yang (2012) shows the aggregate savings level in China reached 53.2% in 2008. From a low 6–7% of GDP in the 1970s, the household savings rate rose to 23% in 2008. The reasons for the high savings rate include unequal wealth distribution, reduced number of children born and the male child

preference of families which engenders a sex ratio imbalance. Wei and Zhang (2011) link high savings to the unusually high son/daughter ratio of Chinese families. They argue most of the increase in household savings from 16% in 1990 to 30% in 2007 can be attributed to families' efforts to improve their sons' position in the marriage market. They also argue house prices and the high savings rate are correlated.

Turning to a developed country, Boisclair et al. (2014) study the Canadians' financial literacy and retirement planning, where they find 42% of respondents correctly understand interest compounding, inflation and diversification. Younger people, women and unemployed individuals performed worse. Income and education affect retirement planning positively. Additionally, slight regional differences exist. Adopting a different approach, Guiso et al. (2004) document that in Italy as the social capital of an area increases the use of financial tools becomes more sophisticated with the share of cash decreasing and that of institutional instruments increasing.[2] Using electoral participation and blood donation as proxy for social capital level, they find informal loans decrease as social capital increases. Age, education, income and wealth affect the amount held in cash negatively. They report trust plays a larger role in the savings and borrowing decisions of unsophisticated investors. Migrants are found to behave similarly to locals. Higher regional trust levels decrease credit denial probability.

Demirgüç-Kunt et al. (2013) research the role religion and Islamic finance on financial inclusion. Based on a sample of 65,000 adults from 64 economies, representing approximately 75% of the world's adult Muslim population, they find Muslims are less likely to have a bank account and to save formally as well as less prone to borrow formally or informally compared to non-Muslims. Fifty-two percent of the world's adult Muslim population lives in Indonesia, India, Pakistan and Bangladesh. Their data show that 53% of Muslims are educated at the primary level or less, 60% are married, 24% work for an employer, 18% have internet access, and average household size is 4.53. In their sample, 19% were found to have saved and 9% to have borrowed formally over the last 12 months. A related in-depth survey of 5000 adults revealed little use of Islamic banking products. In Turkey, where more than 98% of the population is Muslim, 86% of the non-Muslims and 57% of the Muslims in the sample had a formal bank account.

Turning to the KONDA survey, it can be said to be more detailed than previous ones. In particular, questions pertaining to cultural traits like lifestyle and religious choices allow us to analyze their interrelation

with income, saving, borrowing and lending. Thus, in contrast to previous work, our paper investigates how saving and borrowing decisions in an emerging market relate to an individual's religious or lifestyle traits. The motivation is to provide a more detailed analysis of saving and loan preferences with respect to cultural attributes.

The remainder of this paper proceeds as follows. Section 5.2 describes the data. Section 5.3 discusses estimations and the results of the analysis, and Sect. 5.4 concludes with policy implications.

5.2 Data

The survey was conducted by KONDA Research and Consultancy in May 2014 on 2607 individuals. Panel B of Table 5.1 displays how it relates to the much larger—nearly 360,000 people—official survey along age, gender and education dimensions.

The questions are separated into two categories. The first set consists of questions eliciting demographic information. The respondents are asked to report their gender, age, education, own birthplace, father's birthplace, region of survey, employment, urban or rural, household size, marital status, who they live with at home, modern or conservative lifestyle, religion, whether females use headscarves or similar headgear, attitude regarding traditions, preferred TV channel, type of house lived in, economic status, spending changes compared to previous year, political party voted for in the last two elections and whom they would vote for if there was an election now. This part of the survey also includes questions about crisis expectations, whether they anticipate any economic difficulty in the coming months, whether their income is sufficient to cover living expenses and what they would do if they had a windfall gain of 10,000 TL or 1,000,000 TL.

The second set of questions pertains to financial information and monetary assets. It is well known that people's attitudes toward risk and saving habits are influenced by their beliefs and income/wealth levels. Thus, the respondents were asked whether they save and if yes for what purpose they save for. They were also asked who in the household makes the savings decisions and which sources they trust for investment advice. This section of the survey included specific questions regarding income and wealth. Hence, the interviewees were asked about house and car ownership, children's education, children's wedding, the level of household income and whether that income is regular and steady or unsteady. The questions sought information on borrowing such as loan

sources—formal financial institutions versus family or friends, whether individuals involved had any difficulty in paying back a loan to a bank before and whether they currently owe money formally or informally.

5.3 Results

Table 5.1 Panel A reports the summary statistics for selected variables in Turkey. Table 5.1 Panel B shows the samples of KONDA and TUIK's (Turkish Statistical Institute) HLFS (Household Labor Force Survey)[3] are similar in their age, gender and educational achievement dimensions. It can be seen to constitute a representative sample of the Turkish population.

The results show 50.9% of the respondents are female and 49% male and 0.1% did not answer. Their age ranges from 18 to 83 averaging around 40.2. 26.7% are between 18 and 28 years old, 34.1% between 29 and 43 years and 39.1% above 44 years. About 6.2% of those surveyed are illiterate. Nearly 59.1% received a junior high school education. 52.1% of the people surveyed either work or are retired. 53.7% live in cities and 71.3% are married. 78.5% live in households of three people or more and 95.1% live with other people at home. 73.7% are conservative. 94.3% are Sunni Muslim. 69.8% are religious. Forty-eight percent would vote for the conservative religious (AK) party, if there was an election now. Forty-seven percent voted in the last two elections and would vote now for the same conservative religious party. Average household income per month is 1885 TL (869 USD), and maximum monthly household income of the sample is 15,000 TL (6912 USD). Sixty percent have a household income above the minimum wage of 1200 TL (553 USD). 80.4% were able either to save or had adequate income to cover monthly expenses. 54.4% do not save, whereas 45.3% do save. The saving motives comprise home purchase (12.3%), car (4.9%), children's education (11.6%), children's wedding (3.1%), prudential (9.4%) and other (3.9%). 65.3% have a house and 41.5% have a car. 54.1% have confidence in their ability regarding investment decisions, and 74.1% decide either by themselves or with their family. 39.4% had borrowed formally and 59.1% informally, i.e., from family or friends. Twenty-eight percent had difficulty paying back a loan previously. 55.3% did not expect a crisis in the near future.

Household income by monthly income categories and religious affiliation are summarized in Table 5.2 Panel A. Panel B displays the summary

Table 5.1 Variable definitions and summary information

Panel A. The variables

Demographic information

Gendernew: Dummy takes value 1 for male and 0 for female
Age: is age of the individual when survey is conducted
Lage: is the logarithm of age
Edunew: equals 1 for high school or higher and 0 otherwise
Regionbirth: Birth region takes value 1 to 12 for different regions in Turkey, 13 for outside of Turkey, 14 no answer
Fatherbirth: Father's birth region takes value 1 to 12 for different regions in Turkey, 13 for outside of Turkey, 14 no answer
Il: City where the survey was conducted
Work: Employment takes value 1–8 for different professions, 9 retired, 10 housewife, 11 student, 12 unemployed, 13 cannot work, 14 no answer
Workyes: The dummy showing employment if *work* between 1 and 9 than workyes is 1 and 0 otherwise
Rnew: The regioncode dummy is 1 for urban else 0
Marinew: Marital status of investor at the end of the sample period: 1 married, and 0 else
Howmanynew: equals 1 if household size equals or exceeds 3 people and 0 otherwise
Famnew: Takes value 1 if they do not live alone at home and 0 if they live alone
Lifestylenew: equals 1 for traditional or conservative religious and 0 for modern lifestyle
Sect: Takes value 1 for Sunni Muslim religion and 0 otherwise
Religion: Takes value 1 for Sunni, 2 for Alavi, 3 for other, 4 no answer
Religiousnew: Takes value 1 for strong believer and radical for religion and 0 for non-believer and believer
Ak: Takes value 1 for Ak Party for political party to be voted for if there was election today and 0 otherwise
Ak45: Takes value 1 for Ak Party for political party to be voted for in 2014 elections and 0 otherwise
Ak46: Takes value 1 for Ak Party for political party to be voted for in 2011 elections and 0 otherwise
Veryak: Takes value 1 for Ak, Ak45 and Ak46 all equal to 1 and 0 otherwise
Econdifficult: if they expect any economic difficulty in the next months
Income: Takes value 1 if regular household income in that month is above 1200 TL (555 USD) and 0 otherwise
Lincome: The natural logarithm of the nominal household income per month
Enoughincomenew: Takes value 1 if individuals had no difficulties with living expenses or can save and 0 otherwise

Financial Information

Saveanynew: Takes value 1 if individuals save now and 0 otherwise
Savings: For what purpose they save for Home1, Car1, Furniture1, Edu1, Holiday1, Installpay1

(continued)

Table 5.1 (continued)

Panel A. The variables

Demographic information

Howsave: Fx1, Bank1, Gold1, Equity1, Houseland1, Other1

Home: The dummy takes value 1 if individuals do not own a house and 0 if they own a house

Car: The dummy takes value 1 if individuals do not own a car and 0 if they own a car

Trustinvest: Trust for investments takes value 1 if own knowledge and analysis, 2 if social network, 3 news, 4 brokerage/investment company employees' advice, 5 Internet, 6 no answer

Confinv: The dummy takes value 1 if individuals are confident in their knowledge and analysis of investment decisions and 0 otherwise

Whodecidesinvestnew: Takes value 1 if the person decides individually or with the family members for the investments and 0 if the significant other (wife/husband) or other members of family decide

Loan: The dummy takes value 1 if individuals did not take out a loan and 0 if they have a loan

Friendloannew: Takes value 1 if any loan from family or friends is ever taken and 0 otherwise

Difficultloannew: Takes value 1 if individuals had any difficulties in paying back a loan from a bank and 0 otherwise

Crises: Takes value 1 if individuals do not expect a crisis in the next months and 0 if they expect a crisis

Panel B. Preliminary analysis of demographics, loans and savings data summary statistics per variable

The Mean procedure

Variable	*N*	*Mean*	*Std. Dev.*	*Minimum*	*Maximum*
Gendernew	2602	0.4908	0.5000	0.0000	1
Age	2606	40.1554	14.6481	18.0000	83
Lage	2606	3.6240	0.3766	2.8904	4.42
Edunew	2570	0.5907	0.4918	0.0000	1
Workyes	2601	0.5206	0.4997	0.0000	1
Rnew	1027	0.5365	0.4989	0.0000	1
Marinew	2589	0.7134	0.4523	0.0000	1
Howmanynew	2568	0.7858	0.4103	0.0000	1
Famnew	2571	0.9514	0.2151	0.0000	1
Lifestylenew	2570	0.7370	0.4404	0.0000	1
Sect	2572	0.9428	0.2322	0.0000	1
Religiousnew	2583	0.6984	0.4590	0.0000	1
Ak	2408	0.4801	0.4997	0.0000	1

(continued)

Table 5.1 (continued)

Panel B. Preliminary analysis of demographics, loans and savings data summary statistics per variable

The Mean procedure

Variable	*N*	*Mean*	*Std. Dev.*	*Minimum*	*Maximum*
Veryak	1979	0.4704	0.4993	0.0000	1
Incomemonth	2437	1885.4600	1378.5400	0.0000	15000
Lincome	2436	7.3350	0.6446	4.3175	9.62
Enoughincomenew	2585	0.8039	0.3971	0.0000	1
Saveanynew	2593	0.4531	0.4979	0.0000	1
Home	2590	0.3425	0.4746	0.0000	1
Car	2598	0.5839	0.4930	0.0000	1
Confinv	2412	0.5415	0.4984	0.0000	1
Whodecidesinvestnew	2023	0.7410	0.4382	0.0000	1
Loan	1251	0.6059	0.4888	0.0000	1
Friendloannew	2520	0.6115	0.4875	0.0000	1
Difficultloannew	2541	0.2802	0.4492	0.0000	1
Crises	2537	0.5526	0.4973	0.0000	1

Panel C. KONDA and TUIK comparison

	KONDA 2014					*HLFS 2014*				
Variable educ	*Obs*	*Mean*	*Std. Dev.*	*Min*	*Max*	*Obs*	*Mean*	*Std. Dev.*	*Min*	*Max*
1 (less than secondary)	2589	0.5616	0.4963	0	1	358,763	0.6752	0.4683	0	1
2 (secondary)	2589	0.3001	0.4584	0	1	358,763	0.1880	0.3907	0	1
3 (tertiary and above)	2589	0.1383	0.3453	0	1	358,763	0.1368	0.3437	0	1
gender female	2602	0.5092	0.5000	0	1	358,763	0.5060	0.5000	0	1
age	2606	40.1554	14.6481	18	83	358,763	41.7862	15.9308	18	83

statistics. A t-test shows that Sunnis earn less than non-Sunnis (mostly Alavi, other standing for non-Muslim). The t-value for a pooled equal variances test is 1.94 which is significant at a 5.3% confidence level.

Table 5.2 Income and the religious affiliation

Panel A. Income per household statistics

%	*Sünni*	*Alavi*	*Other*	*No Answer*
300 TL or below	1.27	0.04	0.12	0
301–700 TL	6.14	0.19	0.04	0.04
701–1200 TL	27.89	1.07	0.19	0.23
1201–2000 TL	28.12	1.19	0.42	0.31
2001–3000 TL	14.92	0.92	0.27	0.27
3001 TL and above	8.86	0.54	0.23	0.23
No answer	5.83	0.27	0.15	0.27

Panel B. Income per household in a month (TL)

%	*Sünni*	*Alavi*	*Other*	*All*
Mean	1863	2101	2297	1885
Std. Dev.	1362	1,417	1845	1379
Minimum	–	300	100	–
Maximum	15,000	9000	10,000	15,000
Observation	2273	103	33	2409

Demirgüç-Kunt and Klapper (2013) report 36% of adults in the world saved during the previous year (30% low-income and 58% high-income countries), and 25% save through a formal institution (11% lower-middle, low-income and 45% high-income countries). There are rotating savings and credit association (ROSCA) clubs in several countries such as Peru and Indonesia, similar to the informal "gold days" for women in Turkey as a saving alternative. Twenty-nine percent of the adults in the world are believed to save in informally including "under the mattress." The KONDA survey shows 45.3% of those sampled report saving money. Turkey being a middle-income country this figure, as expected, falls halfway between those for low- and high-income countries (30 vs 58%) given above. However, when it comes to the saving rate as a share of GDP, the official statistics show it is quite low, currently about 14% (Davutyan and Ozturkkal 2016).

Table 5.3 provides the structure of Turkish households according to size. The mode occurs at 4 (743 out of 2568 households) with the average household size being 3.9 individuals.

Table 5.3 Household size

Household size	*Number*	*%*	*Cumulative %*
1	88	3.4	3.4
2	462	17.7	21.1
3	549	21.1	42.2
4	743	28.5	70.7
5	399	15.3	86.0
6	155	5.9	91.9
7	78	3.0	94.9
8	35	1.3	96.2
9	17	.7	96.9
10	42	1.6	98.5
No answer	39	1.5	100.0

Thus, according to our estimates, households tend to be smaller in Turkey relative to the average found in Muslim countries, reported to be 4.5 by Demirgüç-Kunt et al. (2013). Due to the fact that Turkey is the most developed and urbanized Muslim country and since family size and urbanization are inversely related, this is a plausible finding.

Table 5.4 summarizes household income and saving patterns. The table takes the minimum monthly income of 1200 TL (553 USD) as the dividing line. Those who earn more than 1200 TL constitute 60.5% of the sample, and the remaining 39.5% earn less than that amount. It can be seen the motives for are broadly comparable across them. Davutyan and Ozturkkal (2016) find saving and borrowing decisions strongly correlate with income, education, marital status and region within country.

Table 5.5 investigates the difficulties of pertaining to loan repayment. We regressed the loan repayment difficulties dummy against demographics and income. The findings show the older, female, working, married, lower-income and modern lifestyle individuals are more likely to encounter loan repayment difficulties at any point in time compared to their counterparts.

Table 5.6 explores investment decision-making independence. A four-way categorical dependent variable (Question: Who decides to invest for the family? Answer: 3 = me, 2 = me and my family together, 1 = my significant other, 0 = elderly respected people in the family) is regressed against demographic variables using multinomial logit. Men are significantly more likely to decide individually with a p value < 0.0001. Being older and having a job also raise chance of deciding individually.[4]

Table 5.4 Monthly household income and savings

	Below 1200 TL	*Above 1200 TL*	*Below 1200 TL Obs.*	*Above 1200 TL Obs.*
Save for any of one or multiple reasons below	39.5%	60.5%	968	1481
To buy a house	30.1%	69.9%	92	214
To buy a car	33.1%	66.9%	41	83
To give an education for the children	33.2%	66.8%	96	193
To marry the children	35.6%	64.4%	26	47
To save	26.9%	73.1%	60	163
Other	24.5%	80.3%	23	94
Do not save	47.8%	52.2%	630	687

Table 5.5 Regression analysis of individuals experiencing loan repayment difficulty

Binary logit					
Dependent variable: difficultloannew					
Analysis of maximum likelihood estimates					
Parameter	Coefficient	Wald error	Chi-square		Pr > ChiSq
Intercept	−0.8853	1.287	0.4732		0.4915
Gendernew	−0.3230	0.1238	6.8122	***	0.0091
Lage	0.4292	0.1558	7.5915	***	0.0059
Eduyr	0.0044	0.00985	0.1948		0.6589
Workyes	0.5133	0.129	15.8204	***	0.0000
Marinew	0.7266	0.1327	29.9718	***	0.0000
Lifestylenew	−0.2079	0.1228	2.8677	*	0.0904
Sect	−0.2783	0.2079	1.7917		0.1807
Religiousnew	−0.0848	0.1156	0.5387		0.4630
Lincome	−0.2346	0.133	3.1116	*	0.0777
No. of obs.	2,273				
Likelihood ratio	76.2599				
Pr > ChiSq	<0.0001				

* 10%,** 5%,*** 1% significance level

Table 5.6 Regression analysis of investment decision making within family. (Question: who decides to invest for the family? Answer: 3 = me, 2 = me and my family together, 1 = my significant other, 0 = elderly respected people in the family)

Generalized logit

Dependent variable: family

Analysis of maximum likelihood estimates

			Standard	*Wald*		
Parameter	*Family*	*Estimate*	*Error*	*Chi-square*		*Pr > ChiSq*
Intercept	0	10.7195	2.5945	17.0700		<.0001
Intercept	1	3.9482	2.5339	2.4278		0.1192
Intercept	2	2.1209	1.6252	1.7029		0.1919
Gendernew	0	-0.5916	0.2167	7.4537	***	0.0063
Gendernew	1	−3.0429	0.3213	89.7109	***	<.0001
Gendernew	2	−1.0880	0.1527	50.7768	***	<.0001
Lage	0	−2.8913	0.3835	56.8315	***	<.0001
Lage	1	−0.8000	0.3265	6.0042	**	0.0143
Lage	2	−0.7325	0.2093	12.2501	***	0.0005
Eduyr	0	0.0189	0.0188	1.0047		0.3162
Eduyr	1	−0.0341	0.0205	2.7712	*	0.0960
Eduyr	2	−0.0038	0.0118	0.1054		0.7454
Workyes	0	−1.0875	0.2269	22.9779	***	<.0001
Workyes	1	−1.4603	0.2603	31.4672	***	<.0001
Workyes	2	−0.7669	0.1664	21.2473	***	<.0001
Marinew	0	−0.5788	0.2528	5.2428	**	0.0220
Marinew	1	3.6612	0.4828	57.5043	***	<.0001
Marinew	2	1.1080	0.1620	46.7863	***	<.0001
Howmanynew	0	1.2331	0.3547	12.0867	***	0.0005
Howmanynew	1	−0.1025	0.2307	0.1973		0.6569
Howmanynew	2	0.1433	0.1537	0.8692		0.3512
Lifestylenew	0	0.0799	0.2267	0.1243		0.7244
Lifestylenew	1	0.2521	0.2626	0.9214		0.3371
Lifestylenew	2	−0.4740	0.1530	9.6015	***	0.0019
Sect	0	−0.3173	0.3708	0.7322		0.3922
Sect	1	−0.8357	0.4038	4.2840	**	0.0385
Sect	2	−0.0405	0.2582	0.0246		0.8753
Religiousnew	0	0.4122	0.2116	3.7964	*	0.0514
Religiousnew	1	0.2352	0.2300	1.0456		0.3065
Religiousnew	2	0.4480	0.1409	10.1150	*	0.0015
Lincome	0	−0.2239	0.2611	0.7354		0.3911
Lincome	1	−0.2905	0.2609	1.2399		0.2655
Lincome	2	0.1553	0.1620	0.9183		0.3379

(continued)

Table 5.6 (continued)

Generalized logit					
Dependent variable: family					
Analysis of maximum likelihood estimates					
			Standard	*Wald*	
Parameter	*Family*	*Estimate*	*Error*	*Chi-square*	*Pr > ChiSq*
No. of obs.	1,788				
Likelihood ratio	1017.785				
Pr > ChiSq	<.0001				

* 10%,** 5%,*** 1% significance level

Being married increases the likelihood of joint decision making (option 2) or letting their spouse decide (option 1). Being religious increases the chance of relegating investment decision making to elders (option 0) or to decide jointly with their family (option 2). Being a Sunni significantly reduces the likelihood of letting the spouse decide (option 1) relative to deciding alone (option 3, the reference category).

Table 5.7 shows the results of a multinomial logit analysis for saving decisions with seven categories (0 = do not save, 1 = to buy a house, 2 = to buy a car, 3 = for children's education, 4 = children's marriage, 5 = to save, 6 = other) using demographic explanatory variables. The coefficients of gender indicate compared to women, men are less prone to save for their children's marriage and more likely to save for other reasons. Getting older makes people more inclined to save for their children's marriage, but not for other purposes. Educated people have a greater tendency to save for car purchase and for other reasons. Working individuals are more likely to save for home and car purchase. Being married increases the likelihood to save for home and car purchase as well as children's education and wedding. Being married and living in large households—three or more individuals—decreases the inclination to save for other purposes.

Living in large households increases the tendency to save for children's education and marriage. People with a conservative lifestyle are more likely to save for their children's education. For religious people, to buy a car is a statistically significant saving choice. Having a higher

Table 5.7 Regression analysis of the saving decision for seven levels (0 = do not save, 1 = to buy a house, 2 = to buy a car, 3 = for children's education, 4 = children's marriage, 5 = to save, 6 = other)

Generalized logit

Dependent variable: saveany

Analysis of maximum likelihood estimates

				Standard	*Wald*	
Parameter	*Saveany*	*DF*	*Estimate*	*Error*	*Chi-square*	*Pr > ChiSq*
Intercept	1	1	1.1051	2.0677	0.2856	0.593
Intercept	2	1	0.5087	2.8924	0.0309	0.8604
Intercept	3	1	−10.939	2.1792	25.1986	<.0001
Intercept	4	1	−24.2413	4.2813	32.0593	<.0001
Intercept	5	1	−12.0643	2.2047	29.9438	<.0001
Intercept	6	1	−16.0352	3.3665	22.6872	<.0001
Gendernew	1	1	−0.1153	0.1914	0.3629	0.5469
Gendernew	2	1	0.2877	0.2699	1.1364	0.2864
Gendernew	3	1	0.1869	0.2514	0.5529	0.4571
Gendernew	4	1	−1.0025	0.466	4.6268	0.0315
Gendernew	5	1	−0.0705	0.2118	0.1109	0.7391
Gendernew	6	1	0.8135	0.3418	5.6642	0.0173
Lage	1	1	−2.5898	0.2888	80.4168	<.0001
Lage	2	1	−2.8343	0.4209	45.3429	<.0001
Lage	3	1	−1.0357	0.312	11.0233	0.0009
Lage	4	1	2.8629	0.6444	19.7375	<.0001
Lage	5	1	−0.4056	0.2949	1.8915	0.169
Lage	6	1	−0.8699	0.4834	3.2383	0.0719
Eduyr	1	1	−0.00122	0.0149	0.0066	0.935
Eduyr	2	1	0.0377	0.0217	3.0119	0.0827
Eduyr	3	1	−0.00479	0.0163	0.0864	0.7688
Eduyr	4	1	−0.0146	0.032	0.2084	0.648
Eduyr	5	1	0.0399	0.0166	5.7311	0.0167
Eduyr	6	1	0.0452	0.025	3.2757	0.0703
Workyes	1	1	0.5571	0.198	7.9175	0.0049
Workyes	2	1	0.5013	0.2823	3.1541	0.0757
Workyes	3	1	0.1982	0.25	0.6286	0.4279
Workyes	4	1	0.1938	0.4316	0.2016	0.6534
Workyes	5	1	0.1461	0.2217	0.4343	0.5099
Workyes	6	1	0.3627	0.3463	1.0971	0.2949
Marinew	1	1	1.1416	0.2239	26.008	<.0001
Marinew	2	1	0.787	0.3034	6.7298	0.0095
Marinew	3	1	2.5435	0.379	45.0321	<.0001

(continued)

Table 5.7 (continued)

Generalized logit

Dependent variable: saveany

Analysis of maximum likelihood estimates

				Standard	*Wald*		
Parameter	*Saveany*	*DF*		*Estimate*	*Error*	*Chi-square*	*Pr > ChiSq*
Marinew	4		1	2.6948	1.0359	6.7679	0.0093
Marinew	5		1	0.37	0.229	2.6105	0.1062
Marinew	6		1	−0.7994	0.3574	5.0043	0.0253
Howmanynew	1		1	−0.4382	0.1976	4.9199	0.0265
Howmanynew	2		1	−0.449	0.2822	2.5315	0.1116
Howmanynew	3		1	1.3744	0.3196	18.4931	<.0001
Howmanynew	4		1	1.3936	0.4457	9.7772	0.0018
Howmanynew	5		1	−0.8845	0.1956	20.4486	<.0001
Howmanynew	6		1	−0.9247	0.3285	7.9222	0.0049
Lifestylenew	1		1	0.0185	0.1853	0.0099	0.9206
Lifestylenew	2		1	−0.3006	0.2502	1.4428	0.2297
Lifestylenew	3		1	0.5177	0.2232	5.3804	0.0204
Lifestylenew	4		1	0.4942	0.4326	1.3049	0.2533
Lifestylenew	5		1	0.1629	0.2062	0.6241	0.4295
Lifestylenew	6		1	0.3162	0.3095	1.0442	0.3068
Sect	1		1	0.2367	0.3469	0.4655	0.4951
Sect	2		1	−0.0952	0.4406	0.0466	0.829
Sect	3		1	−0.4262	0.3302	1.6661	0.1968
Sect	4		1	−0.5487	0.5806	0.893	0.3447
Sect	5		1	−0.1598	0.336	0.2261	0.6344
Sect	6		1	0.8927	0.7576	1.3882	0.2387
Religiousnew	1		1	0.0476	0.1732	0.0756	0.7834
Religiousnew	2		1	0.4108	0.2479	2.7467	0.0975
Religiousnew	3		1	−0.0439	0.1863	0.0555	0.8138
Religiousnew	4		1	0.0786	0.3677	0.0457	0.8307
Religiousnew	5		1	0.00129	0.1958	0	0.9948
Religiousnew	6		1	0.0871	0.2985	0.0852	0.7704
Lincome	1		1	0.7461	0.2141	12.1476	0.0005
Lincome	2		1	0.808	0.298	7.3516	0.0067
Lincome	3		1	1.2432	0.2183	32.4402	<.0001
Lincome	4		1	0.9578	0.3865	6.1422	0.0132
Lincome	5		1	1.5116	0.2229	45.9835	<.0001
Lincome	6		1	1.9415	0.3271	35.2231	<.0001
Family	0		1	1	−0.4398	0.2011	4.7834
Family	0		2	1	−0.6236	0.2776	5.0468
Family	0		3	1	−0.5972	0.291	4.2106

(continued)

Table 5.7 (continued)

Generalized logit						
Dependent variable: saveany						
Analysis of maximum likelihood estimates						
				Standard	*Wald*	
Parameter	*Saveany*	*DF*	*Estimate*	*Error*	*Chi-square*	*Pr > ChiSq*
Family	0	4	1	−0.3597	0.5729	0.3942
Family	0	5	1	−0.1799	0.2345	0.5887
Family	0	6	1	−0.0885	0.3135	0.0797
Family	1	1	1	0.3104	0.1835	2.8617
Family	1	2	1	0.3111	0.2924	1.1326
Family	1	3	1	0.4209	0.1874	5.0439
Family	1	4	1	0.0993	0.3129	0.1007
Family	1	5	1	−0.0832	0.22	0.143
Family	1	6	1	0.2494	0.4536	0.3023
Family	2	1	1	0.0247	0.1186	0.0433
Family	2	2	1	−0.11	0.1758	0.3912
Family	2	3	1	−0.094	0.1419	0.4387
Family	2	4	1	−0.2332	0.2687	0.753
Family	2	5	1	0.0311	0.1362	0.0521
Family	2	6	1	−0.3378	0.2429	1.9335
No. Of Obs.		0 1782				
Likelihood Ratio		585.8				
Pr > ChiSq		< 0.001				

* 10%,** 5%,*** 1% significance level

income increases the likelihood to save for all purposes but particularly for the "other" option.

5.4 Conclusion

This study analyzes saving and borrowing attitudes of representative Turkish individuals. It focuses on how political and religious traits bear on such decisions. Particular attention is paid to solo vs together with spouse vs deferring to elders' aspects of the decision-making process. The results shed light on how such choices are made in Turkey which is a large and predominantly Moslem emerging market.

Regarding loan repayment problems, we find that conservative men with a higher income are less likely to encounter such difficulties. Conversely older, female, married and working individuals are more likely to suffer loan payback troubles.

Interestingly car purchase is a statistically significant reason to save for religious individuals. Higher income has a positive effect on savings for all purposes, but as income increases individuals are more inclined to save for purposes other than basic requirements such as house and car.

The results of our survey indicate religious individuals are less likely to make investment decisions independently. Religiosity and making investment decisions together with family members especially elders and respected relatives go hand in hand. It may be that such individuals decide collectively in other choice situations, e.g., voting as well. This could be an interesting topic for future studies to investigate. The rationality of such collective decisions and their connection to financial literacy might be worth exploring as well.

Notes

1. http://www.tbb.org.tr/Content/Upload/Dokuman/2165/Turkiye'de_Bankacilik_Sektoru_2009-2014_Mart.pdf, March 2014.
2. Davutyan and Ozturkkal (2016) report comparable results using Turkish data.
3. We thank Sezgin Polat for valuable help with the data.
4. The relevant negative coefficient indicates people with such traits are less likely to decide with their family or relegate the decision to their spouse or elders compared with those who decide alone—option 3, the reference category.

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CHAPTER 6

Managing Everyday Living: Microfinance and Capability

Liong Ing Ling, Jill Wilson and Lynda Shevellar

6.1 Introduction

Financial exclusion has been identified as one of the main causes of poverty as it impacts on the ability of individuals to build wealth (The World Bank 2012). It occurs when people lack or have limited access to "appropriate and affordable financial services and products" (Connolly 2014, p. 8). When financially excluded, people are not able to participate in affordable banking, access fair and affordable credit and they have little provision for the future (Landvogt 2008). This limited access to mainstream affordable financial services often drives people towards

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using fringe lenders (Howell and Wilson 2005; Marston and Shevellar 2014). These groups are also more at risk of financial shocks when they are not able to access just credit in an emergency, in particular when exposed to fringe lenders who might be "unethical, predatory and unregulated" (Voola 2013, p. 128).

Within this context, microfinance can be seen as "coming to the rescue". Microfinance is custom-built for people on low incomes and was initially used as a tool to help alleviate poverty in rural Bangladesh by providing funding for small business enterprises. However, microfinance programmes in Australia are generally not used for moneymaking activities but as "financial services … in a way that improves the quality of life" (Ledgerwood and Gibson 2013, p. 15). An example of such financial services is the NILS loans that are offered by the largest provider of microfinance programme in Australia, Good Shepherd Microfinance. NILS loans claim to help people access a fair and affordable credit of up to $1200 to purchase essentials such as a household. To this end, in the 2015 Federal Budget, the Australian Government committed to providing $63.4 million over the next 5 years (including $13.0 million in 2019–2020) to support the continuation of microfinance services that assist low-income and hence financially vulnerable Australians to access mainstream financial services and build financial resilience (Australian Government 2015). Limited financial capability has been identified as a contributing factor to financial exclusion (Byrne et al. 2007; Financial Literacy and Education 2013; Hulme and Arun 2009). It hinders people's ability to use financial resources, to smooth consumption and to manage risks effectively (Financial Literacy and Education 2013). In order for microfinance programmes to achieve maximum benefit, building financial capability for their participants is arguably as important as providing financial access. The aim of the research was to examine the impact of NILS loans on financial capability of participants.

6.2 The Impact of NILS Loans on Financial Capability: A Qualitative Study

6.2.1 Current Debates

In Australia, "the extent to which someone is financially excluded is measured by the number and types of financial products a person has" (Cabraal 2010, p. 20). This includes a moderate amount of affordable credit from a mainstream institution, for example, whether a person has a credit card. However, there are problems with this definition. Sometimes a person can accumulate a huge credit card debt, and in this case, a credit card is not an affordable type of credit. Therefore, Cabraal (2010) suggested that whether or not a person is financially excluded be seen not through the number of financial products a person has, but rather on how a person is able to access financial products that are suitable for him or her (Cabraal 2010).

But can provision of such financial services alone help address financial exclusion among people on low incomes? There are arguments against providing financial access without the accompanying financial literacy. Financial inclusion does not happen alone. It needs to incorporate effective policies and legislation as well as improving the financial capability of the people who are at risk of exclusion (Ledgerwood and Gibson 2013). Furthermore, having access to financial products does not guarantee financial well-being or a better quality of life; instead, such access can contribute to high stress level and hardship particularly if people do not know how to use such products (Russell et al. 2012).

Financial literacy is "the ability to make informed judgments and to take effective decisions regarding the use and management of money" (ASIC 2011, p. 12). People need financial literacy to handle financial information and to choose appropriate financial products (McQuaid and Egdell 2010). Therefore, financial literacy is often seen as an effective method to prepare people to better manage their finances (Sherraden 2010). An increase in people's financial literacy will lead to better financial well-being and more financial development opportunities (Sherraden 2010). Financial literacy has also been looked at as a component of financial capability (Dixon 2006; Holzmann 2010; Keeney and O'Donnell 2009) because capability encompasses both the individuals' ability to do something and the larger social context that enables or inhibits individual's action (Landvogt 2006). For this study,

the term financial capability is used to mean people's ability to manage financial resources and use financial services with regard to their needs in the prevalent social and economic conditions (Financial Literacy and Education 2013).

Having a limited financial capability can lead to financial exclusion (Byrne et al. 2007; Financial Literacy and Education 2013; Hulme and Arun 2009). A quantitative survey in USA, Europe, South Asia, East Asia, Africa and Latin America found that out of the roughly 500–800 million people who have some form of access to formal financial services, only 110–130 million of that number had some basic financial education on how to use these financial products (Deb and Kubzansky 2012). The other 75% of people who have financial access make financial decisions with very little knowledge (Deb and Kubzansky 2012). This means that only one in four persons who have access to financial services knows how to use financial access wisely to his or her advantage (Deb and Kubzansky 2012).

Providing financial access to people on low incomes is the first step towards building financial capability (Russell et al. 2012; Sherraden 2010). Not only are there many financial services and products, but they are complex in nature and harder to understand (McQuaid and Egdell 2010; Willis 2008). As mentioned by Deb and Kubzansky (2012), this gap needs to be addressed urgently as people may not understand the risks of their financial choices or actions. A bad or misinformed financial decision can have serious health and welfare implications for people (Willis 2008). As people on low incomes have fewer resources and very little emergency buffer, they are more at risk of financial shock and the consequences of low financial capability (Commonwealth Bank Foundation 2010; McQuaid and Egdell 2010).

There had been some criticism that microfinance does not live up to expectations. The promise of poverty alleviation through microfinance (in particular, microcredit) is based on two assumptions. Firstly, that it is tied to a productive loan, which means a loan that is used for an income-generating activity, such as investing in a microenterprise (Ledgerwood and Gibson 2013). However when there is little competition, vulnerable borrowers and profit-seeking microfinance institutions, people may be subjected to exploitation (Karnani 2011). Secondly, there is an assumption that small loans such as a microloan can make big differences in the lives of people on low incomes (Proske 2010). However, people on low incomes have diverse financial needs and access to small loans is only

one of the means for people's financial development (Ledgerwood and Gibson 2013). People may also have "more pressing needs for products that support consumption or income smoothing" (Ledgerwood and Gibson 2013, p. 15). For example, if a NILS loan is not used to respond to immediate needs such as replacing a broken refrigerator, but to facilitate spending such as buying a bigger television, this may unwittingly create hardship for people on low incomes when their meagre future income is further reduced for NILS loan repayment. Microfinance can thus become a component in the poverty trap itself (Bateman 2010).

Worldwide, although there have been some major studies in financial literacy and education, there has been very little rigorous research on the impact of microfinance in people's lives (Dale et al. 2012; Holzmann 2010). Good Shepherd Microfinance has commissioned several studies into microfinance and its impact on the participants. Such studies have suggested that the microfinance programmes such as NILS offer a solution to the problems of meeting essential needs, help people experiencing real distress and hardship to feel better, improve their daily lives, strengthen their money management skills and help them feel more positive about the future (Palafox and Ayres-Wearne 2005). The major benefits NILS borrowers reported were learning about financial matters, developing new skills and changing behaviours, and other intangible or felt benefits such as enhanced quality of life (Muoy 2010). Microfinance was found to enable financial inclusion, social and economic participation and material well-being among the participants (Corrie 2011). Cabraal's (2010) reported that in all the three programmes that were evaluated (the Enterprising Women Program, savings and loans circles, NILS), participants spoke of an "increased sense of empowerment in their lives as well as more freedoms, choice and control" (Cabraal 2010, p. 178). Participants in the same study also spoke of having a higher sense of achievement, more self-confidence and a greater sense of pride and dignity. Most of the microfinance research in Australia is focused on individuals' life experiences of financial exclusion (Corrie 2012). Not much work has been done in the area of financial capability following a microfinance programme. Thus, despite these studies, there remains a "significant knowledge gap" in the microfinance area (Cabraal 2010, p. 6). In general, financial capability and microfinance studies do not provide an in-depth understanding of developing the financial capability of microfinance borrowers.

6.2.2 Operationalising the Capability Approach: The Concepts of Functionings, Freedoms, Capability and Agency and in the Microfinance Context

Sen's (1993) capability approach is used to explore the issue of how participants' financial capability is shaped, enhanced or limited by participation in a microfinance NILS programme. Four key concepts of the capability approach—functioning, freedoms, capability and agency—are used in this study. The first concept, functioning, is an "achievement of a person; what he or she manages to do or be" (Sen 1985, p. 10). A functioning is what "a person makes of the commodity at his or her command" (Clark 2005, p. 4). In this study, the commodity was the NILS loan and what they make of it was the participants' functioning, for instance, using it to buy a more energy-efficient household appliance or a computer for study.

The second concept, capability, refers to "the *ability* to do or be something" (Saith 2001, p. 7). It is a person's ability to achieve functioning (Sen 1993) or a collection of functionings a person can achieve (Comim et al. 2008). In this study, it is the actual ability of the participant to, for example, buy the household appliance he or she desires or have the ability to save for it. Capability and functioning are thus closely related. For instance, with a NILS loan, participants have the capability to buy the energy-efficient refrigerator they desire. The more energy-efficient refrigerator will enable the participants to save on electricity bills and have more capability for savings.

The third concept in the capability approach is freedom. This can be seen from two different aspects: opportunities and process (Sen 2009). The opportunity aspect of freedom allows people to live the life they desire, or to achieve what they want (Sen 2009, cited Cabraal 2010). In other words, the opportunity aspect of freedom concerns people's ability to achieve certain functionings such as an improvement in financial capability. On the other hand, the process aspect of freedom is the means by which things happen (Comim et al. 2008). In this research, the process freedom is provided by the participation in a microfinance programme such as NILS. Freedom allows people to live the lives they desire or to achieve what they want (Sen 2009, cited Cabraal 2010). People may not be able to achieve their functionings due to a lack of capability. Sometimes a lack of capability is not necessarily an individual's shortcoming; it could be a result of "unfreedoms" in the society (Sen 1999, p. xii).

Some examples of these unfreedoms are high living expenses in relation to income, income insecurity and under-regulated financial services (Landvogt 2006). Removing these unfreedoms will enable individuals to have better financial capability which will in turn allow individuals to have better access to institutions and their external environment (Taylor et al. 2011). It is interesting to explore whether this initial freedom for participants can create an unfreedom later on in the form of reduced future income (as participants have to repay the NILS loan).

Lastly, agency is the "the force behind social action. Actors must be aware they possess agency and believe they can make a difference through exercising it" (Ling and Dale 2014, pp. 4–5). The degree to which people steer outcomes in their lives reflects their agency (Gries and Naudé 2011). The idea of agency suggests that the actions, activities, decisions and behaviours of people on low incomes represent meaningful choices (Deacon and Mann 1999, p. 413). In the study, it is participants' power to do something, for instance, to continue to put aside the repayment amount into a savings account after they finished repaying the NILS loans that are of interest.

In view of the importance of providing financial access as well as building financial capability for microfinance participants, there needs to be more understanding of the impact of microfinance on financial capability from the perspective of people on low incomes. In order for microfinance programmes to achieve maximum benefit, building financial capability for their participants is as important as providing financial access. This is because financial exclusion among people on low incomes, which microfinance seeks to address, can be caused by a limited financial capability, not merely a lack of financial access (Byrne et al. 2007; Financial Literacy and Education 2013; Hulme and Arun 2009).

6.2.3 Methodology

This qualitative research was conducted in Queensland, Australia, to examine the influence of a microfinance programme, the NILS, on the perceived financial capability of people on low incomes in who have finished repaying a NILS loan. The sample took into account people's availability and their participation in a NILS scheme in Queensland, Australia, and their willingness to become a participant (Hesse-Biber and Leavy 2011). Seventeen NILS participants over the age of 18 were recruited with a diversity in terms of age, gender, cultural diversity and

Table 6.1 Participants by age, ethnicity, family structure, main income and housing type

Participant	*Age*	*Family structure*	*Main income*	*Housing type*
Alice	21–30	Single	Government benefits	Private
Bella	41–50	Single	Government benefits	Private
Cathy	21–30	Partnered	Paid employment	Private
Daisy	51–60	Partnered + 1 dependent	Paid employment	Private
Emma	31–40	Partnered + 2 dependents	Government benefits	Private
Fred	41–50	Partnered + 1 dependent	Paid employment	Private
Gina	61–70	Partnered	Government benefits	Own
Helen	61–70	Single	Government benefits	Public
Ivy	71–80	Single + 1 dependent	Government benefits	Private
Jason	41–50	Single	Government benefits	Public
Karl	41–50	Partnered + 3 dependents	Paid employment	Private
Lily	31–40	Partnered + 6 dependents	Paid employment	Private
Mary	41–50	Single + 2 dependents	Government benefits	Private
Nick	31–40	Partnered + 6 children	Paid employment	Private
Oprah	31–40	Single	Government benefits	Private
Patricia	41–50	Single + 1 dependent	Paid employment	Private
Quinn	31–40	Partnered + 1 dependent	Paid employment	Own

All names are pseudonyms

participants with Torres Straits Islanders and Indigenous backgrounds. The data collected were analysed using thematic analysis, a method for identifying, analysing and reporting patterns within data (Braun and Clarke 2006). Themes and connections between categories were used to interpret the data and attach meaning and significance to the analysis (Elo and Kyngäs 2008; Horton et al. 2004).

Table 6.1 shows the number of research participants interviewed by participants' age; ethnicity; family structure; income; and housing type. Female participants outnumbered male participants. All culturally and linguistically diverse (CALD) participants, with the exception of one participant from a European origin, were refugees. The CALD participants had varied cultural backgrounds. There were four participants from Asian backgrounds; four participants were from a Middle Eastern background, three participants of African background and one from a European background. Three participants were of Indigenous or Torres Straits Islander background and two were Anglo-Australians. Table 6.1 also shows that slightly more than half of the participants were on government benefits

with eight participants having paid employment. All of these were from CALD backgrounds.

With regard to family structure, seven participants were partnered with dependent children, six participants were single, while two participants were partnered but without dependents, and two were single parents with dependent children. Five participants earned $1000 or more per fortnight and all of these were from CALD backgrounds. Only two participants lived in their own residence. All the other participants were renters.

6.2.4 Findings

1. **Uses of NILS loans**

All participants reported having income inadequacy as the basis of the needs for NILS loans. However, focusing on income alone will "blind us to some influences on the ability to convert income into capability" (Tseng 2011, p. 26). There are other factors that can contribute to people's well-being (Tseng 2011). In the study, income is therefore looked at as relative to cost of living, ambition, and obligations to others. Firstly, meeting the cost of living can be understood as a set of interrelated functionings (Sen 1985). Some participants have a higher cost of living relative to income. For instance, an age pensioner living in public housing and a single parent with dependents living in private rental would not be able to achieve the same functioning with the same income. Thus, even though the level of income may be the same among participants, in effect, it may bring different level of functionings for different participants. Secondly, some participants reported income inadequacy because of their ambition to financially advance themselves. Thus, they may either upskill themselves with further study (in the hope of getting a better paying job) or save for a future business venture. Five participants, all from a CALD background, reported insufficient income because they needed money to buy a computer for their study or to pay their course fees. One CALD participant said that his income was not sufficient because he had plans for a future business venture and he needed to save his "work money" for a future business venture. Lastly, some participants' reported insufficient income because of their family obligations

and commitments. This is particular apparent among the CALD participants. For some overseas-born participants, inadequate income was because their savings were sent overseas to help other family members (regardless of whether they had their own family in Australia). Four CALD participants mentioned they sent money overseas to help their family. People sometimes also pursue goals that can reduce their well-being (Tseng 2011). For instance, a CALD participant had taken a NILS loan for a child's driving lesson, one participant took a NILS loan for another person's car repair and another participant mentioned she was short of money when she stocked food for her grandchildren.

2. **Participants' money management style**

Rent was the single most important priority in allocating funds mentioned by participants, followed by bills and food. NILS Participants living in social housing were less stressed than participants living in private rental arrangement. All the participants living in social housing mentioned using Centrepay to pay their rent and bills. This is a direct bill-paying service offered free for Centrelink customers who are receiving payments; usually, bills are paid by having a regular amount deducted from the Centrelink payment. One participant mentioned using bill smoothing to cover her larger expenses such as telephone bills and car registration. One participant mentioned that there was nothing much she could do except to wait for the next payment and another participant mentioned she managed by being very thrifty. One participant mentioned using Centrelink Advance. This is a Centrelink loan that can be repaid from a person's future payments. No participant reported having to borrow from fringe lenders or payday lenders, which offer short-term loans at very high rates of interest, to get by although one participant mentioned having used this type of lending before. She had used fringe lenders because she needed the money straight away to move after she divorced but she struggled to repay the loan. She acknowledged that at that time, a fringe lender was the only option for her.

> They are the worst thing to do, but, at that time, they are great help, but financially they are the worst thing to do [Mary].

3. Participants' unfreedoms

Types of unfreedoms reported varied among participants of different age groups. Sen has referred to the barriers people face in achieving their capability as unfreedoms (Sen 1999). Therefore, any human development such as improving financial capability needs to look "removal of various types of unfreedoms that leave people with little choice" (Sen 1999, p. xii). Participants who were below 30 years of age reported the lack of prior experience in a particular job was a societal unfreedom. Hence they have to rely on Newstart Allowance. Consequently, this group reported insufficient income and had to take a NILS loan to enable them to do a course to enhance their job prospects. Participants in the age group of 31–40, as well as 41–50, most often reported the high cost of living relative to income, high cost of raising children, having a disability, lack of funds to start own business, debt repayment and overseas remittances as unfreedoms. Even though many of the study's participants were from a CALD background, no one had mentioned that being in the CALD group was an unfreedom. Table 6.2 shows the types of unfreedoms as reported by participants.

4. Participants' attitude towards money

This study found that participants can display two types of attitudes towards money, either facilitating or inhibiting. This attitude to money is akin to agency in the capability approach that people have to believe they can actually make a difference in their lives through their action (Ling and Dale 2014). The facilitating attitude can be seen from either a positive or a negative view; for example, when a participant thought of money as important to realising his or her ambitions, he or she would try hard to be financially more capable. Ironically, a family obligation, which lessens the person's available income, might actually help build financial capability as participants had to be skilled in money management in order to be able to "spare" some money to send overseas despite their meagre income. Some participants displayed an attitude towards money that is inhibiting to financial capability development. Examples here are participants who thought that "money is bad" or "we can't do

Table 6.2 Types of unfreedoms as reported by participants

Participants	*Types of unfreedoms*
Below age 30	Lack of job
	Insufficient income
	No prior employment
Aged 31–40	High cost of living relative to income High cost of raising children
	Disability
	Lack of fund to start own business
	Debt repayment
	Overseas remittance
Aged 41–50	High cost of living relative to income High cost of raising children
	Disability
	Lack of fund to start own business
	Debt repayment
	Overseas remittance
	Insufficient income
	Lack of job
	Lack of savings to counter unexpected expenses
Aged 51–60	High cost of living relative to income Lack of capital to start small business
Aged 61–70	Difficulty in getting a job High cost of living
	Disability
Above age 71	Old age
	Health ailment

Table 6.3 Attitudes towards money and characteristic of participants

Attitudes towards money	*Participants more likely to be*
Facilitating	In paid employment
	Male
	CALD
	Below 50 years old
Inhibiting	On government benefits
	Female
	Indigenous and Anglo-Australian
	More than 50 years old

anything". A more careful analysis reveals that the participants who display either the facilitating or inhibiting attitude towards money are more likely to be in certain group; however, it is not a causal relationship. This is presented in Table 6.3.

5. The impact of NILS on participants' money management skill

All the participants interviewed had completed at least one NILS loan. When asked whether there was any change in money management skill after paying out a NILS loan, ten out of seventeen participants mentioned there was no change after a NILS loan. These participants reported they had good existing financial skills and that they were good money managers and most have never been unhappy with their money management styles. Their needs related to insufficient income. Of the remaining seven participants, three participants reported that their money management skills had changed. They attributed this change to the fact that they could afford more expensive items by paying back the loan gradually. Two participants mentioned that the loan interview had taught them how to prepare a budget; one participant attributed the change to the fact that he realised the importance of repaying debts and thus had put the loan repayment amount into his budget.

Many participants seemed to have built NILS loans into their budget. More than half of the participants interviewed were repeated NILS borrowers. Most had the intention of borrowing again if funds were needed. Only one participant mentioned his situation was different from where he first started as a refugee to Australia and thus did not see a need to borrow from NILS again. It appeared that there was a dependency on NILS loans in three ways. Firstly, a NILS loan was seen as an alternative form of savings. This echoes the finding of Cabraal (2010) where participants viewed NILS as a "savings in reverse" (Cabraal 2010, p. 104); as long as participants have finished paying off a previous loan, they can borrow another one (Cabraal 2010). This is illustrated by one participant who said:

> I have been with them [NILS] for many years and if I ever need things, I just go there. [Ivy]

Secondly, participants saw NILS loans as way to purchase items supported by NILS and keep their own money for other expenses. The community organisations that deliver NILS loans were seen as lending providers that do not charge interest or fees for their services. In this way, a NILS loan was seen as an interest-free financial product.

> They give you the loans without interest. Yes, and without any trouble, any background checks, as long as you are on a pension, you can get a NILS loan. [Helen]

> Because you can't save the no interest (NILS) money, he must spend it, …he save his work money, and he spend the no interest money. [Quinn]

Thirdly, as most of the participants had some form of government benefits, the ease of NILS loans' repayment (deducted from Centrelink payments fortnightly) was also mentioned as a factor in why NILS loans were budgeted into their income, thus contributing to dependency upon the loans scheme.

> …you don't even see the money, it is like direct debited it out of, your pay, it is just a little less pay. [Oprah]

6.2.5 Discussion

The research identifies two main groups of participants: one having the ambition of getting ahead financially and one wanting to just "manage" their everyday living. The first group of participants may take out a NILS loan for example, to buy a computer for study so that they can get a better paying job. Participants who had more ambition to get ahead are more likely to be male participants of CALD origins, in paid employment and below 50 years of age.

The second group of participants managed their everyday living by supplementing their finance with NILS loans, for example, purchase of an essential household item that they otherwise would not be able to achieve. With the bigger purchase, such as a refrigerator, taken care of, participants will have more income for recurrent items such as paying bills and buying groceries. Participants wanting to just manage are more likely to be female participants who are on government benefits, have a disability, to be of an Indigenous and Anglo-Australian background and are more than 50 years of age.

While all participants acknowledged the usefulness of NILS loans in managing their everyday finance, NILS loans were not seen by most as a way to build their financial capability. Many participants did not report a change in their money management skill; however, access to this type of "savings in reverse" (Cabraal 2010, p. 105) or interest-free bank has

undoubtedly increased participants' financial security. When participants saw NILS as an alternative savings and as an interest-free bank, they did not see a need to save for new purchases or for unexpected emergencies for items covered by NILS. Hence NILS does not help to foster a saving behaviour, particularly due to the ease of obtaining a new loan once after one is paid off (Cabraal 2010). This readily accessible nature of NILS loans had also led some participants to think that as long as they had finished repaying a NILS loan, they were entitled to another one. As NILS loans operate on a "buy first, pay later" model, many participants viewed the ability to repay the NILS loan as an achievement. This finding was also reported by Cabraal (2010). The ability to repay was mentioned by some participants as a prerequisite to getting new NILS loans. Some participants took pride in the sense that their repayments help other people who need the loans. Participants mentioned that by repaying the loans, they put money back into the scheme, thus enabling other people to borrow that same money.

6.2.6 Conclusion and Recommendation

The study has employed a capability approach for a broader understanding of human development (financial capability) within microfinance. The findings from the study suggest that even though NILS loans provide financial security, they were not seen by the participants as a means to expand financial skills, for example, to be more financially self-sufficient. The continual reliance on NILS loans for more than half of the participants suggests that NILS loans are seen as an end (for example, a purchase) and not a means (to learn to save or to build financial knowledge). Perhaps the NILS approach, with its focus on "buy first, pay later", contributes to the perceived lack of financial skills among participants. As many NILS participants were dependent on NILS (either as an interest-free bank or as a savings in reverse), whether or not microfinance programme such as NILS provides a scaffolding for participants to transition into financial capability is still not clear. However, the NILS loans do provide a sense of financial security for participants in their everyday living.

The main limitation of this study is that it studied the impact of only one type of microfinance programme (NILS loan) on financial capability of its participants. As many participants also reported that they did not see any changes in their financial skills after the NILS loan, would a

microfinance programme, such as Saver Plus that also imparts financial education, have a different perceived impact on participants? As the literature suggests, there is financial capability gap especially among people on lower incomes, and that a lack of financial capability being a cause of financial exclusion, this study provides a starting point for more complex studies. More independent evaluative studies are needed to contribute to better understanding of how microfinance help build financial capability of its participants. Only then the question to "so we have given out the loans, then what happens?" can be answered by the various players in the microfinance sector.

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CHAPTER 7

Credit, Microfinance, and Empowerment

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7.1 Introduction

Recent evidence has raised deep questions about targeting of microcredit, viability of group lending, whether microcredit promotes resilience against vulnerability to natural and market shocks, microinsurance, trade-offs between outreach and sustainability, commercialisation of microcredit, and the regulatory role of the state in promoting the pro-poor agenda of microfinance. Our study addresses these questions drawing selectively upon a substantial body of recent empirical evidence. Careful attention will be given to lessons for investors/donors, governments, and microfinance institutions that follow from our review. The present study is largely a synthesis but an optimistic one.

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Section 1 will give a brief but focused exposition of credit market failures that impede access of the poor and livelihood expansion. An attempt will then be made to elaborate how these credit market failures are sought to be overcome through microcredit/microfinance.[1] Section 2 identifies key issues that recent evidence has thrown up raising doubts about expansion of microcredit and its pro-poor focus. Of particular importance is the commercialisation of microcredit and alleged "mission drift". In Sect. 3, we offer a distillation of vast empirical evidence on the impact of microfinance that has accumulated but with divergent findings. While some of these divergences stem from differences in context, data and methodology, definitive conclusions must await more detailed investigations. Section 4 concludes with observations from a broad policy perspective with an emphasis on lessons for various stakeholders.

7.2 Credit Market Failures

7.2.1 Identification

In an important contribution, Besley (1994) examines the view that credit market interventions should be restricted to cases where a market failure has been identified, given reports of financial repression. A case in point is government regulations to hold interest rates on loans below market clearing levels. Without a market clearing mechanism, savings and credit are misallocated. Many of these policies were not consistent with helping the poor. The default rates were high, and much of the benefits of credit subsidies accrued to the wealthier farmers.

A market failure occurs when a competitive market fails to achieve an efficient allocation of credit. Loans are traded competitively, and the interest rate is determined by supply and demand. A Pareto-efficient outcome for credit is when the loans cannot be reallocated to make one individual better off without making another worse off. Failure to repay a loan either because of a contingency or unwillingness to pay requires a legal enforcement framework. But if the costs of enforcement are high, a lender may cease to lend. Another difficulty is informational imperfections. Willingness to lend depends on the reliability of the borrower and on the likelihood of the borrower using the funds wisely. Absence of such information is an impediment to lending to some.

As monitoring is not costless and enforcement and information are far from perfect, a constrained Pareto efficiency criterion is invoked.

This allows for the full set of feasibility constraints. So a market failure occurs when the credit allocation is not constrained Pareto efficient. Markets also operate inefficiently when there are externalities.

Three features of rural credit markets are salient.

1. Collateral that could be seized if the borrower defaults are typically scarce in rural areas. The borrowers are too poor to have assets that could be collateralised. This difficulty is exacerbated by the absence of well-defined property rights that come in the way of appropriating collateral in the event of a default.
2. Lack of literacy, and weak communications tend to make formal bank arrangements costly for many individuals. Absence of complementary markets such as insurance markets compounds the repayment problems. If individuals could insure against income volatility, the default may be less of a problem.
3. A related but distinct feature is that agriculture on which large segments of the rural population still depend for their livelihood is prone to weather shocks, and volatility of market prices that affect whole regions. Such shocks result in large-scale defaults. This problem is exacerbated if large groups withdraw their savings at the same time. If lenders' loan portfolios were more diversified, the severity of these risks would be considerably lower. In fact, however, rural credit markets tend to be *segmented* in the sense that a lender's portfolio is concentrated on a group of borrowers that face a common income shock either because they are concentrated in one geographic region, or because they produce a particular crop, or because they belong to a particular kinship group. Segmented credit markets depend on informal credit, such as local money lenders, friends and relatives, rotating credit and savings associations that use local information and enforcement mechanisms. As a result of segmentation, funds fail to flow across regions or groups of individuals despite potential gains from doing so, as credit needs differ across locations. For example, a drought may require credit to diversify livelihoods. Deposit retention schemes that require a percentage of deposits to be reinvested in the same region further exacerbate the segmentation. Optimal financial intermediation involves a trade-off: while local lenders have better information and may be more accountable to their depositors than large, national lenders, the latter have better access to more diversified portfolios.

7.2.2 Stylised Facts

A recent study (Banerjee and Duflo 2010) summarises empirical evidence on credit markets in developing countries. Salient facts comprise: (1) few people have access to formal credit and rely largely on informal credit. A survey of 13 developing countries revealed that, with the exception of Indonesia, no more than 6% of the funds borrowed by the poor came from a formal source. The vast majority of the remaining was supplied by money lenders, friends, or merchants. (2) Lending rates are often considerably higher than deposit rates within the same local area. Gaps ranging between 30–60% points (deposit rates of 10–20% and lending rates of 40–80%) are common. (3) Lending rates vary widely within the same credit market. Differences of 50% points or more between rates charged to different borrowers within the same area are normal. (4) Richer people borrow more and pay lower interest rates than the poor. (5) Defaults are relatively rare.

Fixed costs of administering a loan explain why interest rates for small loans are so high, why they vary between borrowers, and why the poor pay higher interest rates. As those with little wealth get small loans, the fixed administrative cost has to be covered by the interest amount, pushing up the interest rate. But high interest rates make it harder to repay. Consequently, total lending shrinks further and this pushes up interest rates more until the loan amount is small enough and the interest rate high enough to cover the fixed cost for even a small borrower. Thus, small differences in the borrower's wealth, or in the cost of monitoring of the borrower, lead to large interest rate differences.

7.3 Innovative Features of Microcredit

Microfinance programmes were devised to mitigate credit market failures in developing countries. As noted already, the poor do not have access to formal financial institutions because they lack collateral and are forced to rely on local money lenders who charge exorbitant rates of interest. Microfinance aims to overcome these difficulties (Gaiha & Nandhi 2009, Kabeer 2001). The premise is that by using innovative new contracts, microlenders can both make profits and serve the poor.

Group lending not only reduces transaction costs of small loans but also ensures high repayment rates. Should a borrower fail to repay a loan, the entire group suffers because of joint liability. If groups are formed

voluntarily, *assortative* matching of safe and risky borrowers reduces adverse selection inefficiencies. Group lending could also mitigate *ex ante* moral hazard problems. The group members have incentives to monitor each other and impose "social sanctions" when risky projects are chosen (de Aghion and Morduch 2005).[2] However, as noted by Banerjee and Duflo (2010), group liability may also impose a cost. The incentive for group participants is to reduce the risk taken by their fellow members, since participants do not benefit from the upside of any risky investment, but are liable for the downside. As a result, members of a group may impose excessive risk aversion. Under certain conditions, however, borrowers may also take greater business risks when under a group liability than under individual-liability loans.

In an important recent contribution, Feigenberg et al. (2011) demonstrate using experimental evidence that, even without the explicit incentives for monitoring and enforcement that joint liability provides, frequent group meetings can lower lending risk by increasing social contact among group members and, as a consequence, the risk-sharing that occurs within social networks.[3] Specifically, relative to clients who met on a monthly basis during their first loan, those who met weekly are three and a half times less likely to default on their subsequent loan. The evidence further suggests that the decline is driven by improvements in informal risk-sharing that result from more frequent social interaction outside of meetings. Indeed, quick calculations suggest that weekly meetings may be cost-effective for a MFI. This could explain why MFIs persist with high-frequency repayment schedules *despite* the higher transaction costs. These improvements in risk-sharing are particularly striking as they were obtained in the absence of joint-liability contracts and provide a rationale for the current trend among MFIs of maintaining repayment in group meetings during the transition from joint- to individual-liability contracts.

An additional innovation is "progressive lending". Each borrower gets a small initial loan payable in a year in weekly instalments. Upon satisfactory repayment, the loan size increases. It allows the lender to screen the borrowers while the opportunity cost of nonrepayment rises as nonrepayment could terminate a growing stream of future loans. However, when there is more than one microlender, threats to cut-off future loans lack credibility. Moreover, as loan size increases, defaults become more attractive if the relationship between the microlender and the borrower has a clear final date.

Another innovation is flexibility in the type of collateral. This has the potential of reaching a wider clientele. A case in point is the use of livestock, land, and working tools in rural Albania. One difficulty, however, is that it still requires some form of collateral that could undermine efforts of microlenders to reach the poorest. But it has worked in the case of those just below and above the poverty line, a target group of Bank Rakyat Indonesia—a leading for-profit lender.

This raises the important question of how to target a group which is both reliable and poor. This takes us to the next innovation of focusing on female clients. A recent estimate is women make up 80% of the clients of the world's largest 34 microlenders (de Aghion and Morduch 2005). There are two reasons for targeting women: one is *financial* and the other is *social*. As women are more conservative in undertaking investment strategies and are more vulnerable to the shame of noncompliance, their repayment rates are higher than those of men. Khandker et al. (1995), for instance, found that in Bangladesh 15% of male borrowers had missed payment as against just 1% of female borrowers. Such stark differences are reported by others for Malawi and Malaysia (Hulme 1991 and Gibbons and Kasim 1991, respectively). However, it is not enough to know that women on *average* are better clients.

This brings us to the social objective. Evidence has accumulated confirming that women are among the poorest of the poor, and that money in their hands is better spent on children's health and education. Microlenders in Latin America have thus focused on empowerment of women and spreading of knowledge on good health, nutrition, and hygiene.

A fourth innovation of microfinance relates to the emphasis on savings. Recent evidence shows that even poor households are keen to save and do so but through imperfect informal means (e.g. sewing notes into one's clothing or hiding it in the house). These means are costly and provide no hedge against inflation or limited security. Many microfinance institutions (including the Grameen Bank) thus started encouraging saving facilities. Consequently, saving facilities in tandem with lending further enhanced the lenders' financial self-sustainability (de Aghion and Morduch 2005).[4] However, Banerjee and Duflo (2010) are somewhat sceptical. They argue that, if microcredit is understood as a form of commitment to save, this is not the only way—perhaps not even the best way—to offer a commitment for saving, as saving in a more direct form, rather than repaying a loan, involves receiving interest rates rather than paying it.[5]

There are signs of a shift from *compulsory* to *voluntary* deposits. An important concern is that institutions which take deposits need greater regulation than those which only lend. However, regulatory practices could stifle growth of microfinance as they are often much too demanding and onerous. More on this later.

7.4 Impact

7.4.1 Poverty, Vulnerability, and Empowerment

Much of the recent evidence is based on randomised control trials and some that rely on conventional econometric methods (e.g. difference-in-difference estimators to overcome the selection bias). The findings are unavoidably mixed because of the use of different methodologies and data sets. A distillation is given below, based on a few important contributions. As noted earlier, we will examine a wide range of effects on poverty, women's empowerment, vulnerability to health shocks, short- and long-term welfare effects, interest rates charged by local money lenders, commercialisation of microfinance, trade-offs between sustainability and outreach, and credit subsidy.

Access to finance has several *potential* benefits that reduce poverty. These include (1) long lasting increases in income through higher investments in income generating activities, and a more diversified livelihood; (2) asset accumulation and consumption smoothing; (3) reduction in vulnerability to illness, droughts, and floods; (4) empowerment of women through expansion of economic opportunities and enhancement of social status; and, (5) finally, through spillover effects that extend beyond the borrowers (Hermes and Lensink 2011). The important question is whether these claims are supported by empirical evidence.

The evidence on the impact of microfinance on poverty is mixed. In important contributions, Pitt and Khandker (1998), and Khandker (2005) report two major findings for Bangladesh: (1) microfinance increases consumption expenditure, especially if loans are taken by women; the extremely poor benefit more from microfinance than moderately poor.[6] Roodman and Morduch (2009), however, reject these findings on the grounds that the instrumentation strategy is inappropriate and important explanatory variables are omitted.

Imai and Azam (2012) using data from a panel survey sponsored by PKSF spanning the period from 1997–2005, measured the impact of

microcredit on a number of monetary and non-monetary indicators of household well-being—namely, income, food consumption, and women's BMI. In all cases, credit was found to have significantly positive effects. However, the magnitude of the effects was found to be marginal. For example, doubling of loan size raised per capita income by only about 0.5%, and raised per capita food consumption by 0.7–1%, depending on the estimation method used.

One of the notable features of this study is that it distinguishes between productive and non-productive loans in an attempt to assess whether the impact of credit varies by the type of loan. As expected, only productive loan seems to have a positive impact on income. Productive loan does not seem to have any impact on food consumption; only non-productive loan is able to raise it. The finding that productive loan raises income but not consumption may seem counterintuitive at the first instance; but it is consistent with the discipline of weekly repayments and high interest rates pertaining to microlenders. This may imply that repayments are made in the initial weeks from the household cash flow, which sometimes requires households to tighten their belts—resembling a classic form of savings based on self-denial for future gains. Non-productive borrowers, on the other hand, engage in exact opposite of this inter-temporal trade-off; consume more today with the help of credit but reduce the level of consumption in future. This type of consumption smoothing behaviour is justified when households experience urgent need to raise expenditure temporarily or are faced with a temporary shortfall of income due to shocks.

Copestake et al. (2005) are also not optimistic about the impact of microfinance. Based on a survey carried out in Peru and a mix of methods (difference-in-difference and in-depth interviews), they find that it is the "better off" rather than the core poor who benefit most from microfinance.

Imai et al. (2010) examine whether household access to microfinance reduces poverty, using a multidimensional welfare indicator.[7] Using national household data from India, the treatment effects model is employed to estimate the poverty-reducing effects of microcredit for productive purposes, such as investment in agriculture or non-farm businesses. This model takes into account the endogenous binary treatment effects and sample selection bias associated with access to MFIs. Despite some limitations, such as those arising from potential unobservable important determinants of access to MFIs, a significant positive effect of

MFI productive loans on the multidimensional welfare indicator is confirmed. The significance of treatment "effects" coefficients is verified by both Tobit and propensity score matching models. In addition, it is found that loans for productive purposes were more important for poverty reduction in rural than in urban areas. However, in urban areas, simple access to MFIs has larger average poverty-reducing effects than access to loans from MFIs for productive purposes.

A recent study (Li et al. 2011) evaluates the impact of microcredit in rural China on a few welfare indicators (e.g. income, consumption). This is particularly important as there are few studies of microcredit's potential in reducing poverty in China. Data were collected by the authors through a household survey in Hubei Province during November 2008 and January 2009. To overcome the deficiency of the standard DD method, the authors evaluate the welfare impact using the adjusted DD strategy based on fixed effects regression.[8] In general, their analysis reveals that microcredit improves the household welfare such as income and consumption. In contrast to the results obtained using a binary measure of participation, the positive impact of a cumulative measure of borrowings is significant. However, the magnitude is small. The results also show that those who invest their microloans in income-generating activities (such as agriculture and self-employment) improve their livelihoods more. But the main beneficiaries are non-poor.

Driven by analytical rigour, there has been a surge in studies using randomised approaches to assess the impact of microfinance. But even these studies throw up mixed results. Among the pioneering contributions, Coleman (1999, 2006) uses a randomised approach that relies on an external event, that is, a programme introducing microfinance in the Northeastern part of Thailand with random and unannounced delays. His analysis shows that microfinance has a positive impact on the more wealthy villagers only. Karlan and Zinman (2010) assess the impact of microfinance on small business investment in Manila (Philippines). Their two important findings include: (1) profits from business increase—especially for male and higher income entrepreneurs; and (2) businesses substitute away from education and formal insurance into informal insurance.[9] Banerjee et al. (2009) assess the impact of opening of MFI branches in the slums of Hyderabad (India). Their results are mixed, but on the whole the welfare effects of microcredit are *moderate*.

But this methodology is not without its critics. Deaton (2009), for example, is emphatic that the results are not generalisable. It is also

unclear how many times an experiment has to be repeated before a robust conclusion could be drawn for policy purposes. A related concern is that this methodology cannot be used in a macro-setting except in a narrow range of circumstances (e.g. natural experiment).[10] So, if the experiences across countries are to be assessed, as Imai et al. (2012) do, standard econometric approaches are unavoidable. Indeed, depending on the context, there is a strong case for using both randomised and non-randomised approaches, as emphatically argued by Roodman and Morduch (2009).

A recent assessment (Pellegrina 2011) is innovative in two respects: (1) she assesses the impact of microfinance relative to the impact of bank loans and informal credit. (2) She focuses on the impact of credit on investment on the grounds that through investment higher living standards are feasible in the long-run. Her analysis is based on a large survey in Bangladesh in 1991–1992. Her results show that microfinance is less effective than bank loans in terms of long-term investments. She attributes this to short and regular repayment schedules and the group lending method. The borrowers are thus pushed towards projects with short-term revenues.

Becchetti and Castriota (2011) examine the effects of microfinance in helping people in Sri Lanka who were hit by the Tsunami in 2004. It is a quasi-natural experiment as it creates two groups: those who were hit by the Tsunami and others who were not. Before the Tsunami, access to microfinance was an important reason for income convergence among the borrowers. But this convergence process was disrupted by this natural disaster. However, microfinance loans after the Tsunami helped in reducing the income gap between those who were hit by it and others who were not. What is indeed striking is that this process of recovery was fast. There is thus strong evidence for the effectiveness of microfinance as a recovery tool.

Health shocks are frequent and pervasive in developing countries. Although there is a voluminous literature on how these translate into changes in consumption or income, the evidence is mixed. There is a consensus, however, that the impact of health shocks depends crucially on the ability of the households to insure against such shocks, which in turn is related to health and access to financial markets. Thus, financial institutions have a key insurance function but it is undermined by the general weakness of such institutions and their inability to serve the poor. Islam and Maitra (2012) carry out an insightful analysis of the role of

microcredit in Bangladesh in performing an insurance function, using four rounds of a panel data set. They presume that health shocks are *unpredictable* and *idiosyncratic* in nature. Using a variety of models, they offer a range of findings. Their results show that households that have borrowed from microcredit organisations are better able to cope with health shocks. The main instrument of insurance used is trading in livestock. Households that have access to microcredit do not have to use this instrument, to the extent that households without access to microcredit need to, in order to insure consumption against health shocks.[11] As elaborated, there are two ways in which microcredit is potentially useful. In the short run, it helps insure consumption. In the long run, the change in the value of livestock in response to health shocks is lower for households with access to microcredit, and thus insurance does not come at the expense of productive efficiency. The latter has not received the critical attention it deserves.

Does access to microcredit enhance women's role in intra-household decision-making? Does more cash in women's hands alter allocation of goods and services within households? Using an innovative bargaining model with a few simulations, anchored to Kabeer's (1998, 2001) empirical findings for Bangladesh, Ngo and Wahhaj (2008) throw new light on key conditions that explain heterogeneity of impacts across households. The analysis is premised on an environment in which gender roles are defined by social norms.

They demonstrate that access to credit may not improve a woman's decision-making authority within the household if she has limited skills for an autonomous productive activity; or, even when she has skills to do so but the husband finds it in his strategic interest to appropriate the loan to maintain his own bargaining power. By contrast, in households where capital can be invested in a joint productive activity, such an investment will shift decision-making authority in favour of the spouse who is initially in a weaker bargaining position. Hence *cooperation* and *jointness* of decision-making may be more desirable for women than autonomous control over resources. This perspective offers new insights into the empowering potential of microfinance programmes. Specifically, contrary to a dominant view, if new economic opportunities lie outside the traditional realm of the female spouse and exit options for women are severely limited, then she may be better off ignoring them to preserve her social ties within the community.[12]

An interesting contribution focusing on women's empowerment but with a somewhat narrow focus is Rai and Ravi (2011). They use a unique

data set consisting of 280,000 microfinance borrowers in India. These borrowers are required to purchase health insurance once they get a loan. The main finding is that borrowers make considerably more use of health insurance (in terms of filing their claims) than their partners do. Moreover, and more importantly, women who are borrowers make significantly more use of health insurance than non-borrowing women who have obtained the insurance through their spouses. Thus, there is support for the view that microfinance empowers women.

A nuanced and insightful view of women's empowerment is offered by Weber and Ahmad (2014), based on a small sample in Pakistan.[13]

Women in higher loan cycles of Kashf's microfinance programme experienced a significant increase in empowerment compared to their counterparts in the first loan cycle. Using specific empowerment indicators, there are significant differences in the utilisation of the loan between the control group and the treatment group. Being in a higher loan cycle affects the ability of a female borrower to decide how to use the loan. As this decision is a crucial indicator for financial empowerment, it is inferred that microlending through Kashf leads to a higher financial empowerment.

Another empowerment indicator for which significant differences between the control group and the sample group were found was "mobility restrictions". This study suggests that freedom of movement is an important indicator for social empowerment. Hence, microloans do not only improve women's financial empowerment but also their mobility that is often restricted.

Combining both variables in a logistic regression suggests a significant impact of the loan cycles as well. Consequently, the first conclusion is that microfinance increases main indicators of financial and social empowerment of female borrowers.

Although the borrowers in this study were clients of a microfinance institution focusing on empowering women, social empowerment—with the exception of freedom of movement—did not change significantly for women in higher loan cycles even after personal and livelihood variables were matched. Presumably social empowerment is a long-term objective that needs longer time for changing than just some loan cycles.

Much of impact assessment of microcredit is confined to short-term impacts. The distinction between short- and long-term impacts is important as short-term impacts differ from long-term ones. In the short-term, for example, some households may cut back on consumption to

finance investment in the hope of becoming richer in the long-term. Islam (2011) fills this gap by distinguishing between short-term participation and medium- and long-term participation effects in a microcredit programme in Bangladesh. Four rounds of a survey were conducted by Bangladesh Institute of Development Studies and Palli Karma-Sahayak Foundation (PKSF), covering the years 1997–1998, 1998–1999, 1999–2000, and 2004–2005. The first, third, and fourth rounds of the survey were used as the second fell short on outcome data. A mix of methods is employed but mainly difference-in-difference-in-difference (DDD) estimator. The DDD estimates reported here are for two categories of newcomers-newcomers one including those who joined the programme in 1999 and continued in 2004–2005; and newcomers two comprising households that joined after 2001.[14]

The results show that *continuing* participants gain in all outcome measures, and the treated-untreated differentials are larger for these households. This suggests that long-term participation in microcredit can help households significantly more than short-term participation. Moreover, the gains accrue even after the participation period but it is difficult to generalise for how long. The estimated treatment effects are lower when leavers are included in the treatment groups.

The principal conclusion is that the exit from poverty in Bangladesh requires longer-term participation. Household entrepreneurs require time to achieve productive efficiency or to earn higher returns from self-employment activities. Since existing members of microcredit generally obtain larger amounts, MFIs should be encouraged to offer larger loans sooner rather than later. Although results for leavers are subject to small sample problem, it is interesting to note that they leave (about 60%) because they cannot cope with the frequency of loan repayment and the obligation to attend weekly meetings.

Most of the recent studies of the impact of microfinance on poverty or income have relied on microlevel evidence based on household data or entrepreneurial data, as summarised above. Due to the scarcity of reliable macro-data on microfinance, macro-level studies of the impact of microfinance on poverty are rather limited. However, there are a few recent works that investigate the relationship between the macro-economy and microfinance activities and/or performance, such as Ahlin et al. (2011), Ahlin and Lin (2006) and Kai and Hamori (2009), Imai et al. (2012), among others. The thrust of these studies is either to examine the environmental context in which microfinance operates, or investigate

the potential effect of microfinance on key macroeconomic variables, such as gross domestic product or inequality.

Imai et al. (2012) build on this literature using cross-country data on 48 countries for 2007, and a panel data set on 61 countries for 2003 and 2007, constructed by combining MIX and World Development Indicators (World Bank 2011). It analyses the role of microfinance—volume/scale of activities (not performance/quality)—on Foster-Greer-Thorbecke (FGT) class of poverty indices.

With a view to measuring microfinance activities in a country, Imai et al. (2012) rely mainly on gross loan portfolio (GLP) (divided by the total population) since it measures actual funds disbursed to households. Total GLP of MFIs aggregated for each country is adjusted for write-offs and inflation. This is a benchmark indicator generated by MIX. Standardisation of raw data facilitates meaningful comparison of benchmark indicators MIM (2010). Other variables in the poverty equation include gross domestic product per capita, domestic credit as a share of GDP, and regional dummies. While a robust inverse relationship between poverty and GDP per capita is confirmed in extant literature, share of domestic credit in GDP has a more complex role partly because financial development is both a cause and result of growth. It is, however, plausible that when financial development is low there may be a mutually reinforcing relationship between financial development and microfinance. Finally, as poverty is conditioned on many unobservable regional characteristics (e.g. vulnerability to natural shocks), regional dummies are used.[15] Broadly, the results imply that GLP per capita of MFIs benefits not just the poor but also the poorest. In other words, gross loan portfolio per capita of MFIs is negatively associated with the incidence, depth, and severity of poverty (the FGT class of poverty indices).[16] Other factors that contribute to poverty reduction include GDP per capita and share of credit in GDP (as a measure of financial development of an economy). Besides, there are significant regional effects. The simulations point to worsening of poverty in a mild recession scenario with small reductions in gross loan portfolio per capita, GDP per capita, and share of credit in GDP. These simulations are helpful in adding precision to anecdotal evidence about how setbacks to MFIs hurt the poor. Indeed, sustained flows to MFIs may help avert to some extent accentuation of poverty as a consequence of the slow and faltering recovery of the global economy.

7.4.2 *Microfinance and Money Lender Interest Rate*

The effects of the expansion of microcredit on the informal credit market are largely neglected *despite* the fact that the latter figures prominently in the development discourse. Recent research suggests that the response of interest rates in the informal sector to the expansion of formal credit depends on the characteristics of both sectors, such as the market structure in the informal sector as well as the repayment schedules of the formal sector. Hoff and Stiglitz (1990) show that if some borrowers can satisfy all their borrowing needs from the formal sector at lower interest rates, there will be less demand for informal credit. Under perfect competition and information, this will dampen interest rates. But in a monopolistically competitive market with free entry and one money lender as an imperfect substitute for another, a subsidy in the formal credit market may cause interest rates to rise in the informal sector because the induced new entry drives up the marginal enforcement cost of lending in the latter.[17] Jain and Mansuri (2003), by contrast, focus on the "crowding in" effect of microfinance on informal lenders. Under certain conditions, this crowding in effect may raise the interest rate in the informal sector.[18]

Based on data collected in 2002 from 156 villages in three districts in northern Bangladesh, a regression analysis was carried out of the determinants of the annual average money lender interest rates. The determinants comprised MFI coverage (percentage of households borrowing from MFIs) in a village, and a set of control variables.[19] The main finding is: greater coverage of MFI programmes increases moneylender rates in the villages in which more loans are invested in productive economic activities. If the overall demand for funds rises (as indicated by higher percentage of households borrowing from MFIs), and if loans are inadequate or the repayment schedule is rigid, borrowers will turn to local moneylenders pushing up their interest rates. Borrowers can make more productive investments if MFIs meet their demands for loans by allowing more flexibility in loan disbursement and repayment schedules. A useful insight is that the presence of local moneylenders may even be beneficial, if increasing competition between formal and informal lenders increases borrowers' access to funds at competitive interest rates (Mallick 2011)

7.4.3 *Sustainability Versus Outreach*

Following Hermes and Lensink (2011), the debate is between financial sustainability of MFIs and poverty reduction. Those who advocate

financial sustainability claim that empirical evidence neither shows that the poor cannot afford higher interest rates, nor that there is a negative correlation between financial sustainability and poverty reduction. Their contention is that large-scale outreach to the poor on a long-term basis cannot be guaranteed if MFIs are not financially sustainable. In line with this concern, donors, policy makers, and other financiers of microfinance have shifted from subsidising MFIs towards financial sustainability and efficiency of these institutions. This is due to several factors: greater competition among MFIs, the commercialisation of microfinance (involvement of banks and other investors), technological change in microfinance, and financial liberalisation and regulation measures of the government (Rhyne and Otero 2006).

A few facts are helpful in understanding this shift. Barely 1–2% of all MFIs in the world (some 150 organisations) are financially sustainable. Most of these are larger, mature and regulated, and relatively well-known MFIs. About 8 per cent of all MFIs are close to being profitable. Both groups are commercial organisations. A third group (20% of all MFIs) consists mostly of NGOs which are not yet sustainable but have the potential to be sustainable. The remaining (70% of all MFIs) are relatively small, start-up organisations that are not sustainable and heavily dependent on subsidies (Hermes and Lensink 2011).

Shifting the focus to financial sustainability, it is argued by many, raises serious concerns about dilution of the outreach of microfinance (i.e. the number (breadth) and socio-economic level (depth) of the clients served by MFIs). The presumption is that there is a *large* trade-off between these two objectives.

Among the few rigorous studies of the trade-off, an important contribution is Cull et al. (2007). It examines financial performance and outreach, based on a large data set of 124 microfinance institutions in 49 countries. Their results show that MFIs providing mainly individual loans are more profitable, but the fraction of poor borrowers and of women in the loan portfolio is lower than in institutions that concentrate on group lending. Moreover, MFIs that provide individual loans increasingly focus on wealthier clients—often referred to as "mission drift"—while this is less so for the group-based MFIs. So an important policy implication is the importance of institutional design in reducing the trade-off.

Mission drift is measured differently in various studies. Serrano-Cinca and Gutierrez-Neto (2014) offer a comprehensive and detailed analysis.

First, a composite measure of mission drift (MD) is constructed using three indicators: average loan size, percentage of loans to women, and percentage of loans to rural population, and relate the values for an MFI to the country average values. Using percentile ranks, a mission drift index is computed that ranges from 0 to 1. If a given MFI gets a 0.5 MD, it is in the average of the country. The most centred (on the mission of helping the poorest) MFI obtains a value close to 0 while the most drifted is nearer 1. A logistic regression yields the following results. MD is positively associated with the deposit to asset ratio, as also with total assets. By contrast, MD is negatively associated with donation to equity ratio, as also with yield on gross portfolio. A policy message is that sustainability is feasible without MD by reducing costs and gaining efficiency through innovative use of information and communication technology.

Another important contribution is Hermes et al. (2011). It offers new evidence on the trade-off, based on an analysis of data on 415 MFIs covering the period 1997–2007. Specifically, it examines the relationship between cost efficiency of MFIs (sustainability) and the depth of outreach measured by the average loan balance and percentage of women borrowers.[20] They offer strong evidence that outreach is negatively related to efficiency of MFIs. Specifically, MFIs with lower loan balance are less efficient. Besides, MFIs that have more women borrowers are less efficient.

A recent empirical investigation shows that since 2000 competition in microfinance has increased (Assefa et al. 2013). Moreover, competition appears to be especially strong in South Asia, while it is less strong in Latin America and Eastern Europe.

Various factors have contributed to the growing competition in microfinance. MFIs have shifted their attention to raising funding from capital markets. So their access to commercial sources has improved but has increased competition for lending. Another source of rising competitive pressure comes from the increasing number of commercially oriented providers of microfinance—among which are also (international) commercial banks—entering the industry.[21]

In theory, consequences of competition for the performance of MFIs are ambiguous. It may contribute to lowering of production costs and prices of goods and services and encourage the development of new products and efficient technologies. But competition could also result in lowering the borrower selection standards, weakening of bank–customer relationships, and multiple loan-taking and high defaults.

Assefa et al. (2013) make an important contribution using an appropriate measure of competition among MFIs (based on the Lerner Index) and a rich panel data set including information for 362 MFIs located in 73 countries for the period 1995–2009.[22]

There is weak corroborative evidence of lower outreach of MFIs when faced with more intense competition. But there is strong evidence of increased competition leading to lower levels of loan repayment. Altogether, the analysis seems to support the view of those who see increased competition and the related commercialisation of the microfinance sector as a potential threat to its longer-term stability and success, especially in terms of its financial objectives.

Whether prudential regulation and supervision affect the performance and outreach of MFIs is examined by Cull et al. (2011). This has become especially important as MFIs have begun collecting large deposits from the public especially from relatively poor people. Their analysis is based on the largest 245 MFIs. The main findings are: supervision has a negative effect on outreach, as supervision is positively associated with the average loan balance, while it is negatively associated with percentage of women borrowers. Given the current emphasis on broadening of the capacity of MFIs through larger deposits, it is not self-evident that this approach is welfare enhancing.

Whether subsidies promote efficiency of MFIs is yet another important policy concern. Hudon and Traca (2011) address this concern, based on an analysis of financial data supplied by two rating agencies on 100 MFIs. They find evidence of a positive relationship between the subsidy intensity and the efficiency of MFIs. But there is a *threshold* effect implying that if the subsidy intensity rises above a certain level efficiency is compromised. So the policy message is important: subsidies promote efficiency but only up to a certain minimum level.

Whether networks help diffusion of microfinance is studied by Wydick et al. (2011). Recent research has documented that individuals imitate the choices made by other members of the same network for several reasons including similarity of the environment, conformity to the network, and information about what kind of behaviour is welfare enhancing. They use data on 465 households from a survey in Guatemala. The empirical analysis shows that a household's access to credit is closely related to membership of a church network. A practical implication is that MFIs should utilise existing social networks in order to broaden and/or deepen the outreach of their microfinance services.

7.5 Concluding Observations

The main findings are summarised from a broad policy perspective. The observations are selective.

Although the evidence is mixed, in our judgment, apart from reducing the incidence, depth, and severity of poverty, microfinance has an important role in recovery after a natural disaster. Moreover, given the frequency of health shocks, households that have borrowed from microcredit organisations are better able to cope with such shocks and avoid costlier adjustments (e.g. through sale of livestock).

On the premise that gender roles are defined by social norms, there will be heterogeneous impacts in terms of women's empowerment across households. Specifically, access to credit may not improve a woman's decision-making authority *within* the household if she has limited skills for an autonomous productive activity; or even when she has skills to do so but the husband appropriates the loan to maintain his own bargaining power. Investment in a joint productive activity, however, enhances a woman's bargaining power. Hence, *cooperation* and *jointness* of decision-making may be more desirable for women than autonomous control over resources. From a somewhat narrow perspective, women who are borrowers make significantly more use of health insurance than non-borrowing women who have obtained the insurance through their spouses. Thus, there is support for the view that microfinance empowers women.

Exit from poverty requires longer-term participation. Household entrepreneurs require time to achieve productive efficiency or to earn higher returns from self-employment activities. Since existing members of microcredit generally obtain larger amounts, MFIs should be encouraged to offer larger loans sooner rather than later but without diluting the focus on the poor.

An important lesson from impact studies is that the lending technology and the type of contract that MFIs use have important implications for the way borrowers use their loans. Using loan contracts with regular repayment, for example, discourages investments with longer gestation period. There is thus a case for more flexible lending technology and contracts.

Group lending attempts to overcome the dual problem of missing collateral and lack of intermediary capital. In a typical arrangement, a microlender forms small groups and loans are conditional on individuals sharing a degree of liability in each other's loans. Thus, incentives are

created for borrowers to become peer monitors of each other's loans. In other cases, members are not jointly liable but are denied future loans in the event a member defaults. However, in recent years, two pioneers of group lending, BancoSol of Bolivia and Grameen Bank of Bangladesh, have turned to individual lending contracts, removing joint-liability clauses. The switches were in part a response to client complaints that group lending creates excessive peer pressure within groups; it also involves transaction costs and functioned poorly in heterogeneous groups. Borrowers also take greater business risks when under a group liability than under individual-liability loans. Free riding also gets worse as group size enlarges.

Another important insight is that, even without the explicit incentives for monitoring and enforcement that joint liability provides, frequent group meetings can lower lending risk by increasing social contact among group members and, as a consequence, the risk-sharing that occurs within social networks. A case in point is weekly group meetings instead of monthly meetings.

How credible is the threat that defaulters will be denied future loans? It is a credible threat when lenders are monopolists. But as markets thicken and borrowers have more options, there is always another lender to try in the absence of credit bureaus or enforceable liens. "Excessive competition" and "over-borrowing" through multiple loans were held responsible for the microfinance crises in Bolivia, Uganda, Bangladesh, Nicaragua, Bosnia, and India. Credit bureaus with unique identification are an important part of the solution.

Shifting the focus to financial sustainability raises serious concerns about dilution of the outreach of microfinance (i.e. the number (breadth) and socio-economic level (depth) of the clients served by MFIs). That the trade-off exists is undeniable but little is known about its extent. One interesting finding is that the trade-off is large for small loans. Since the early 1990s, transformation of the more successful microfinance NGOs into regulated for-profit investor-owned firms has been underway. The rationale is that commercialisation would expand microfinance's ability to benefit from commercial capital markets, reduce dependence on donor capital and subsidies, and bring market discipline and business efficiency to drive down costs. Regulatory considerations also matter in so far as institutions need to be shareholder corporations authorised to receive deposits. Does this transformation involve a higher priority for profits than welfare of clients? Analysis of leverage and social

investment shows that, in some contexts, little leverage from commercial capital markets is likely when working in the poorest communities. On the other hand, retaining a non-profit charter could signal commitments not to divert donated resources for personal gain. This may help attract outside capital donations and prevent mission drift.

Use of existing social networks between current and new microfinance clients may help reach out to the poor at a considerably lower cost than when such networks are not used. This would better enable MFIs to expand their outreach without compromising their financial sustainability.

In conclusion, while the magic of microfinance has eroded with financial sustainability overriding social goals, there are ample grounds for optimism about resolving this trade-off.

Notes

1. Microcredit (unsecured small loans) has evolved into microfinance that also includes microsaving and basic forms of insurance and transfer mechanisms (Conning and Morduch 2011).
2. For a more nuanced view on the latter, see Banerjee and Duflo (2010).
3. The experimental data were collected under the auspices of a MFI, Village Welfare Society, in West Bengal. At the time of group formation, clients who participated in the experiment were told that they would meet and repay either weekly or monthly, and their meeting schedule would be determined by lottery prior to loan disbursal. Once groups were finalised, 30 groups were randomly assigned to the standard weekly repayment schedule and 70 groups to a monthly repayment schedule. For details, see Feigenberg et al. (2011).
4. Based on a series of "lab experiments in the field" designed to elicit measures of time discounting and risk aversion and survey data on financial behaviour for a random sample of over 500 individuals in rural south India, Bauer et al. (2012) show that the likelihood of borrowing from local microcredit institutions is greater for women with present-biased preferences (i.e. more impatient with respect to choices affecting consumption very soon than with respect to choices that will play in the future). The finding that present-biased women favour borrowing from microcredit institutions can be explained partly by their general difficulty in saving: the present-biased group is more likely to need to borrow than otherwise similar people undertaking comparable investments. But when members of the present-biased group borrow, they are more likely than other (otherwise similar) borrowers to do so through microcredit institutions specifically.

5. Dupas and Robinson (2009), for example, report that micro-business owners with access to a savings account, a form of commitment savings product, recorded higher business investment, a reduced sensitivity to shocks, and higher per capita expenditure.
6. The latter is based on a follow-up study based on panel data for 1991–1992 and 1999.
7. Poverty is defined by the IBR (Index Based Ranking) Indicator that captures various aspects of well-being including landholdings, salaried income sources, livestock, transport assets, housing, and sanitation facilities.
8. For methodological details, see Li et al. (2011).
9. For a thorough but somewhat critical appraisal, see Morduch (2011).
10. For a cogent critique, see Ravallion (2005).
11. In an interesting study, Munshi and Rosenzweig (2009) show using a panel data set for India that nearly one-quarter of the households in the sample participated in the insurance arrangement each year prior to the survey round, giving or receiving transfers (gifts and loans). Although loans account for just 20% of all within-caste transactions by value, they are more important than bank loans or money lender loans in smoothing consumption and in dealing with contingencies such as illness and marriage. Indeed, they go on to argue that such within-caste loans are actually more important than microcredit. But the context matters. In Bangladesh, Islam and Maitra (2012) point out, the credit institutional structure differs, in particular, microcredit is more common.
12. Kulkarni (2011) develops the argument that women's empowerment needs to occur in multiple dimensions: economic, sociocultural, familial/interpersonal, legal, political, and psychological. These dimensions cover a broad range of factors, and thus women may be empowered within one of these subdomains. For instance, the sociocultural dimension covers a range of empowerment subdomains, such as marriage systems, norms regarding women's physical mobility, non-familial social support systems, and networks available to women.
13. 90 questionnaires were used for this study. 60 questionnaires belonged to the treatment group with borrowers in higher loan cycles and at least a 5-year lending history. 30 questionnaires came from the control group. All participants were women. All borrowers were clients of Kashf Foundation in Pakistan.
14. In fact, five groups are considered: apart from two groups of newcomers, there are leavers one who were old clients but dropped out after 1998, leavers two who participated until 2001 and then dropped out, and, finally, drifters comprising occasional clients.
15. The methods of estimation used include OLS, IV, fixed effects, and random effects. For details, see Imai et al. (2012).

16. A question central to these results is: how does poverty reduction occur when targeting of microcredit on the poor and poorest is generally so weak. As pointed out earlier, there are important spillover effects of microcredit (e.g. secondary employment and income generation of microcredit projects). The reduced form specifications employed capture the totality of effects on poverty.
17. As further elaborated by Hoff and Stiglitz (1990), if borrowers cannot fully meet their needs from government institutions, an issue is whether formal sector loans are treated as senior or junior debt relative to informal sector loans. If the former has seniority, the informal sector loans in effect become riskier, and this may lead to an increase in the informal sector interest rate. Besides, in monopolistically competitive settings, when there is active screening, the screening costs must be allocated among smaller loan sizes, which raise average costs and interest rates. Conversely, if the formal sector loans are treated as junior debt, the effect on informal sector credit is ambiguous.
18. They point out that MFI participants routinely cross-finance loans (i.e., they repay one loan by taking another). While cross-financing through multiple MFI loans is also common, available evidence suggests that frequently it takes the form of small informal loans taken for the express purpose of meeting the weekly instalment of the MFI loan. This practice appears to be particularly prevalent among the poorest borrowers.
19. For details of correction for endogeneity, see Mallick (2011).
20. The cost efficiency is measured using a stochastic frontier analysis. For details, see Hermes et al. (2011).
21. The relationships between competition in microfinance and its commercialisation are complex and two-way.
22. Measurement of competition among MFIs is often *ad hoc* and comes in the way of comparison of results. The Lerner index measures competition by examining the difference between the output price and the marginal cost of production (scaled by the output price) at the firm level. It ranges between 0 and 1. In a perfectly competitive market, where the price is equal to the marginal cost, the value of the Lerner index equals 0, whereas in a monopolistic market, where firms can set prices above marginal cost, the index will be close to 1.

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CHAPTER 8

Microfinance Impact Assessment Methodologies: Is it Qualitative, Quantitative or Both?

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8.1 Introduction

This chapter considers methodological issues on how to assess the impact of microfinance programme. The introduction discusses the important subject of ontology and epistemology as it relates to microfinance by examining different research philosophies that include the positivists and the interpretivists. The literature review discusses the deductive and the inductive research approaches. This includes the data collection method, strength and weaknesses of each approach. The next section on research strategies for microfinance impact assessment provides evidence from previous studies on

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different methods and research approaches used by researchers. The section on the implications of microfinance research approaches for data analysis discusses different analytical methods for microfinance studies. The last section provides different options for the choice of methods for microfinance researchers. This provides a clear guide on the choice of methods for any research work on microfinance impact assessment with the required conditions for the use of each method and their strength and weaknesses.

Epistemology relates to the type of knowledge that exists in a field of study and the ways they are acquired by researchers (Saunders et al. 2009). Ontology is the nature of social world based on the researcher's perspective or assumption on what needs to be known about the social world (May 2001). Ontology refers to the nature of reality, while the study of epistemology refers to research philosophies that can be used in any study. This is quite large that the diverse debates and opinions on research philosophy and strategies cannot be fully covered in this study. However, two research philosophies—the interpretivists and positivists approaches—and the inductive and deductive research strategies that are relevant to microfinance are discussed below.

The positivists approach in research is based on the feeling of the natural scientist (Saunders et al. 2009) such that investigations of phenomena are usually carried out with scientific methodologies traceable to the natural science. This requires the use of scientific methods based on laid-down and well-thought hypothesis that are likely to be developed from existing theory (Saunders et al. 2009; Oluyombo 2011) to determine the causal relationship between two or more variables. The result of this process is assumed to be generally applicable and can be used to predict likely occurrence of an event, if certain conditions as stated in the hypothesis are met. Positivists approach allows for independent gathering of data in a research process, such that researchers are not able to influence either their research or the outcomes. This makes the research to be objective because the researchers are detached from the issue being investigated (May 2001). It is assumed that this approach will help in the explanation and prediction of the phenomena under study, which leads to generalisation of result such that the outcome of sample can be used to determine the result of the population. The positivists use "cause and effect" to explain human behaviour based on existing theories. Positivists are set out to test theory, and this determines how they collect or gather their data. This approach may involve the use of either primary data or secondary data or both. However, where primary data are used, many

respondents are asked the same questions via a questionnaire and/or survey. This requires the collection of quantitative data that are subject to statistical analysis (Saunders et al. 2009), which enables the researchers to interpret the answers in the same way, and it leads to consistency.

The interpretivists argued that research cannot be subject completely to a laid-down theory because of changes in human behaviour and complexity of the world (Ghosh 1992). Researchers have to give room for different shades of opinions that cannot be assumed to be fixed or regimented alongside existing theories. The interpretivists tend to lead to the development of grounded theory but not always—this is an unnatural divide between the two philosophical stances (Oluyombo 2012). The interpretivists require "entering the social world of our research subjects and understand their world from their point of view" (Saunders et al. 2009, p. 116). Research should be conducted to gather facts which also speak for themselves and do not require the test of existing theories (May 2001) but to build a new theory. This may require the use of interview, focus group discussion, and other qualitative methods of data collection. The interpretivists lend their work to the inductive strategies.

8.2 Literature Review and Research Approaches

Research strategy refers to the methods adopted in data collection and in the analysis. The two main strategies that are identified in the literature are called quantitative and qualitative methods (May 2001; Saunders et al. 2009). The quantitative method is also called the deductive approach, and this usually involves a predetermined theory before the research (May 2001; Saunders et al. 2009). The deductive approach to research uses quantitative data and is mostly used by the positivists. The research is therefore carried out to either reinforce or refute the existing theory depending on the outcome of the study. This is carried out by considering the result of the research with the theory, which enables researchers to accept or reject the usefulness of the theory with the research result using empirical evidence. The deductive approach requires a more formalised method of research, which requires the use of testable hypothesis. This is to ensure that the researcher is independent of the study, and where the phenomenon under study is true, it should be supported by the data. Data collection is determined by considering the theory to be used in testing the hypothesis. The deductive approach enables generalisation of research result as a result of reasoning, and

studies that are conducted with deductive approach can have either valid or invalid results (Ghosh 1992). This is because the research hypothesis can be either rejected or not.

The five steps stated below were identified by Robson (2002), which quantitative research should pass through: deducting a hypothesis that comes out of theory and testable, expression of the testable hypothesis in terms that should be made operational, testing the operational hypothesis, examination of the specific outcome of the enquiry and modification of the theory based on the findings, if necessary.

The deductive research strategy tends to explain the causal relationship that exists between variables that are measured; this may include interrelationships among many variables which provide a link for better understanding of phenomena. As a result, facts that are measured quantitatively are used for such research. The quantitative method may be more accurate and precise (May 2001) because of the formal way of data collection and the use of statistical analytical tools in testing predetermined hypothesis. The deductive research strategy seems to be more rigorous through the use of verifiable data that is subjected to empirical test. The drawback of quantitative approach is that some theories may take some aspects of social life for granted, and as such, deductive strategy may not be the best approach. Problem of validity may arise where the assumptions upon which the research is based are not true or met. The use of rigid scientific methodology may not permit the use of alternative explanation beyond the hypothesis. However, the inductive approach requires the use of qualitative data in considering a social life or phenomena to either derive theories or find out what is happening. Inductive research may be carried out without a predetermined theory, while data collection takes place first after which a theory is developed based on data analysis. Inductive research may also be motivated by theory, which could inform the design of the research instruments (Oluyombo 2011). The outcome of the study enables the researcher to come up with theories that may be entirely new or as an extension/addition to existing theories that were not determined or considered before the commencement of the research. The inductive approach is another name for the qualitative method, and the process leads to generation of theoretical propositions from the data (May 2001) and is often related to the interpretivists philosophy. It involves the collection of factual data to arrive at theories after the fact/data must have been linked with existing literature. This would then be differentiated from researchers'

interpretation. Inductive research strategy is used to discover facts of social actor and the relationship that exists between the facts. Researchers that want to know why something is happening may be more interested in using the inductive approach (Oluyombo 2012).

The theoretical framework using inductive approach may require observation and generalisation (Ghosh 1992). The generalisation is achieved based on facts from observation of social phenomena. The qualitative method enables researchers to understand how events are interpreted by individuals and the meaning given to it. It is more flexible to accommodate necessary changes to a research process while the study is going on. However, generalisation of result may be difficult for qualitative method because a uniform pattern of research cannot be achieved by two individuals in their research since emotion, feeling and other individual behavioural trait differ. Uniform data collection may not be possible in all situations, especially when the research has to do with some personal sensitive issues in which an individual may not want to divulge the correct data. Furthermore, Ghosh (1992) and May (2001) argue that it may not be easy to appropriately separate the researcher from the research process.

The above does not mean that a particular research philosophy and research strategy is better than the other. However, a research philosophy may be more relevant for a particular research than the other depending on the aims of the study. Furthermore, a research question may also fall into both philosophies, and it should be treated as such. The use of appropriate strategy may be determined by the objective of the study, and the methodological evidences gathered from the literature.

8.3 Research Strategies for Microfinance Impact Assessment

The need to conduct an impact evaluation of microfinance programme is not in contention among researchers, practitioners, governments, and local and international donors including multinational financial and developmental agencies. “The question of impact and how to assess it is generally agreed to be important” (Sebstad 1998, p. 1). This part of the study concentrates and evaluates research methods used by previous studies on microfinance.

A cross-sectional study by Edgcomb and Garber (1998) used questionnaire, in-depth interview, ex-clients survey and focus group discussion (FGD) to gather data. Random sampling technique was used to select the sample size, and their sample comprises 143 for survey questionnaire (70 new clients and 73 existing clients). Twenty-three ex-clients participated in the client exit survey. Sixteen existing clients took part in the loan use interview, six female members were interviewed on empowerment and six focus group discussions were held. Quantitative data analysis was carried out through Chi-square test and t test. Simple content analysis and keywords were used to analyse qualitative data. Interview, FGD and questionnaire were used by Todd (2000) to collect primary data in Philippines with a cross-sectional design. The questionnaire was administered on 152 clients and 92 non-clients. Twenty-seven matured female clients participated in the in-depth interview, while 12 groups comprising of 47 women clients took part in the focus group discussions. Two hundred and fourteen clients were interviewed on client satisfaction and 90 ex-clients participated in client exit survey. Data analysis for the impact survey and the client exit survey was carried out quantitatively with Chi-square test and t test. The results of the interviews were reviewed and summarised using keywords, which enable the researcher to quote the interviewees verbatim.

Park and Ren's (2001) study in China used household survey data collected from sample size consisting of 305 clients and 144 non-clients in 18 villages. Data were analysed using ordinary least-square estimates, F-statistics and correlation of coefficient. Falaiye's (2002) cross-sectional study was conducted between July 2001 and March 2002 in Nigeria using mixed methods. Data collection was performed through survey questionnaire, focus group discussion and in-depth interview. Random sampling technique was used to determine the sample size. The impact survey sample comprises 165 clients made up of 129 existing clients and 36 new clients as the control group. Sixteen clients participated in the interview, and three focus group discussions took place which comprises 22 discussants. Quantitative data were analysed for cross-tabulation, and independent-sample t test was used to determine the mean score between the groups of respondents. Content analysis and "in their word" were used to analyse the qualitative data. Larocque et al. (2002) longitudinal study drew their sample from rural and urban areas of Burkina Faso. One hundred and sixty-three clients were used for the study relating to productive credit. The consumer credit sample consists

of 48 individuals, while 60 members were used for the saving deposit sample. The community impact involves 233 individuals that were divided into 37 discussion groups using random sampling. The quantitative approach was used to assess the impact of the programme on business, individual and household living conditions. The qualitative method was used to assess the impact of the programme on female empowerment and the community using participatory rapid appraisal technique. Part of the data analysis was carried out to arrive at averages, median, measurement of central tendency, dispersion, frequency rate and percentages. Comparison analysis was carried out using Chi-square test and t test, while linear regression was used to determine the relationships between certain characteristics of the participants.

Haile (2003) researched on microfinance poverty alleviation in Ethiopia. The researcher used a cross-sectional design with stratified sampling method to select 107 new clients and 109 old clients as sample size. Survey result was analysed using Chi-square test, t test and ANOVA test. Content analysis was used to report the result of the interviews and focus group discussions. Adjei et al. (2009) used multi-stage sampling and random sample methods with a cross-sectional study to select 547 respondents that comprise 316 established clients and 231 new clients who completed their questionnaire. Data were analysed quantitatively with the use of Heckman and ordinary least-square regression models. Shaw's (2004) study used random sampling techniques from member list with outstanding loan, from which a sample size of 253 respondents that completed the questionnaire was drawn. This was followed by focus group discussion and in-depth interview with 87 respondents among the initial 253 and a further interview with members of staff of microfinance institutions. Data were quantitatively and qualitatively analysed with the use of median, frequency, mean and simple percentage. A study by Anyanwu (2005) in Nigeria uses sample size of 14,395 respondents from urban and rural areas. Data analysis was carried out quantitatively using logistic regression model, sensitivity analysis and test of equality of means. Copestake et al.'s (2005) longitudinal study in Peru used the Consultative Group to Assist the Poor (CGAP) poverty assessment tool. Random sampling technique was used to select the sample size of 200 clients and 300 non-clients. The qualitative aspect included in-depth interviews with 60 female clients. The data were analysed qualitatively and quantitatively with the use of means, weighted average and Pearson correlation coefficients.

Calkins and Ngo (2005) used concurrent design for the FGD and questionnaire administration, while satisfaction was measured at individual level by Holmgren (2011), and this can be determined by asking individual members with option to explain themselves. Sharma et al. (2005) used interview and FGD to determine satisfaction among members, while quantitative tools were used for household and enterprise impact levels. Morris and Barnes's (2005) longitudinal study conducted interviews with 965 clients and non-clients in Uganda. A total of 1332 samples were used in 1997, but they were able to get 965 out of the 1332 in 1999. Data were analysed with statistical tests of significance, gain score test, a one-way analysis of variance (ANOVA) test and content analysis. A cross-sectional study in Nigeria by Oke et al. (2007) collected data from 100 respondents each from two microfinance institutions using multi-stage random sampling method. Data were analysed using frequency table, percentage, mean, median, standard deviation, t test and coefficient of variation. A cross-sectional study by Haque and Yamao (2008) used primary data randomly collected from 300 respondents from women programme in Bangladesh. The data were analysed using percentage. Annim et al. (2008) cross-sectional study shows how microfinance reduces poverty in Ghana. They collected data through interview from 1628 clients and 1104 non-clients using the non-clients as control group. Microfinance poverty assessment tool developed by CGAP was used to analyse their data. Adjei and Arun's (2009) cross-sectional study in Ghana used 231 clients with the aid of multi-stage and random sampling methods. Random walk technique was used to select the 305 non-clients that participated in the study. Data were analysed using Chi-square test and t test.

8.4 Implication of Microfinance Research Approaches for Data Analysis

A review of previous studies above reveals that studies (Edgcomb and Garber 1998; Todd 2000; Falaiye 2002; Morris and Barnes 2005; Oke et al. 2007; Adjei and Arun 2009) that used either the Chi-square test or t test in data analysis adopted a cross-sectional design using primary data in the form of questionnaire and interview on microfinance clients and non-clients. Those who used t test did so to ascertain the differences in mean score of clients and non-clients to be able to determine the impact

of microfinance programme on clients. The use of t test by Morris and Barnes (2005) and Adjei and Arun (2009) enables the researchers to conduct statistical test on all the types of household assets used on an individual basis. Various individual variables used to determine enterprise profitability and assets ownership were tested statistically by Morris and Barnes (2005) with t test. Copestake et al. (2005) used the Pearson correlation coefficient to determine the statistical significance of household asset results on an individual basis. Morris and Barnes (2005) and Adjei and Arun (2009) used the t test, while Adjei et al. (2009) used the least-square regression to conduct the same test. The above studies were conducted in Africa with the exception of Copestake et al. (2005) that was conducted in Peru.

However, t test was used for most studies conducted in developing nations, especially in sub-Saharan Africa such as Adjei and Arun (2009), Falaiye (2002) and Morris and Barnes (2005). Studies (Park and Ren 2001; Anyanwu 2005; Copestake et al. 2005) that used logistic regression model, sensitivity analysis and Pearson correlation coefficient for data analysis used either primary data with longitudinal design, or secondary data with a cross-sectional design. This approach enables the researchers to have a large sample size that could fit into their analytical tools. For example, Anyanwu (2005) used secondary data of 14,395 respondents from the national household living survey data. The use of linear regression, ANOVA or Pearson correlation coefficient by previous studies (Copestake et al. 2005; Adjei et al. 2009; Oluyombo 2013) enabled the researchers to determine the statistical relationship that exists between demographic characteristics of the participants such as age, gender and marital status, and the study result.

8.5 The Choice of Methods for Microfinance Researchers

The different research methods adopted by previous studies on microfinance above are related to the research strategies discussed in introduction and literature review sections above, and they are discussed below as it relates to the choice of method for future studies on microfinance by researchers.

From the "positivists" perspective, quantitative methods using a survey questionnaire or secondary data are necessary to enable explanation

of the reason for changes among microfinance programme beneficiaries. This is achieved by having assumptions upon which hypotheses are developed and tested statistically, using statistical tests such as Chi-square test, independent-sample test, regression, coefficient of correlations and analysis of variance. Usually, the sample size consists of programme beneficiaries, a control group and dropout or former clients (Sebstad 1998; Hulme 2000; Copestake et al. 2002). Studies (Buckley 1997; Anyanwu 2005; Westover 2008) that adopted this method argue that the most microfinance impact assessment researches are insufficiently rigorous because they are qualitative and look at a single case or specific areas using non-random sampling methods.

To the "interpretivists", meaningful microfinance impact assessment cannot be determined by using quantitative methods of data collection and analysis. Rather, a coherent and useful impact should be based on qualitative methods. This method enhances researchers' ability to collect data directly from programme beneficiaries either through personal interview, focus group discussion or participatory rapid appraisal methods. Listening to people will afford the researcher the means to document facts from what they say or from their body language and also enable investigators to probe further into grey areas during the interview process. Furthermore, report writing can be carried out by quoting the respondents which makes the process a true replica of the programme effects on the participants. The use of qualitative analyses in determining the impact of microfinance has been supported by some studies including Oluyombo (2007) and Mawa (2008). They clamour for the use of qualitative methods because they believe that it will help to monitor the impact of microfinance programmes at the client level. Copestake et al. (2002) argue that qualitative approach offers a greater rigour whereby peer reviewers are able to determine the process through which conclusions are reached based on different assumptions and available documents. The qualitative approach reduces the possibility of information imbalance that may be covered up in some quantitative analysis.

The last group is the "mixed method ideologies". The mixed method is a combination of both quantitative and qualitative methods of data collection and analysis Saunders et al. (2009). Ghosh (1992) asked for the combination of both deductive and inductive approaches in some social sciences research in order to enable the best use of rich data collection process. The mixed method approach suggests that a meaningful microfinance impact assessment should involve the use of

both qualitative and quantitative data, because there are data that cannot be derived by using any of the single methods of the positivists or interpretivists. "If you use quantitative techniques, don't forget the great value-added of qualitative ones" (Pawlak and Szubert 2004, p. 3). Consequently, this school of thought explains the need to mix both methods in the form of triangulation whereby result for one method may be confirmed by the application of the other method. Literature that recommends or uses a mixed method approach to microfinance impact assessment includes Edgcomb and Garber (1998), Park and Ren (2001, 2005), Morris and Barnes (2005) and Haque and Yamao (2008).

Figure 8.1 shows the list of some of the studies conducted with the use of the three research ideologies discussed above. This has led to the need to fulfil impact assessments based on the peculiarity of each study. Moreover, the use of a single method may not provide all the needed data, but a "combination of words and numbers can bring us closer to the complexity of developmental change by providing divergent as well

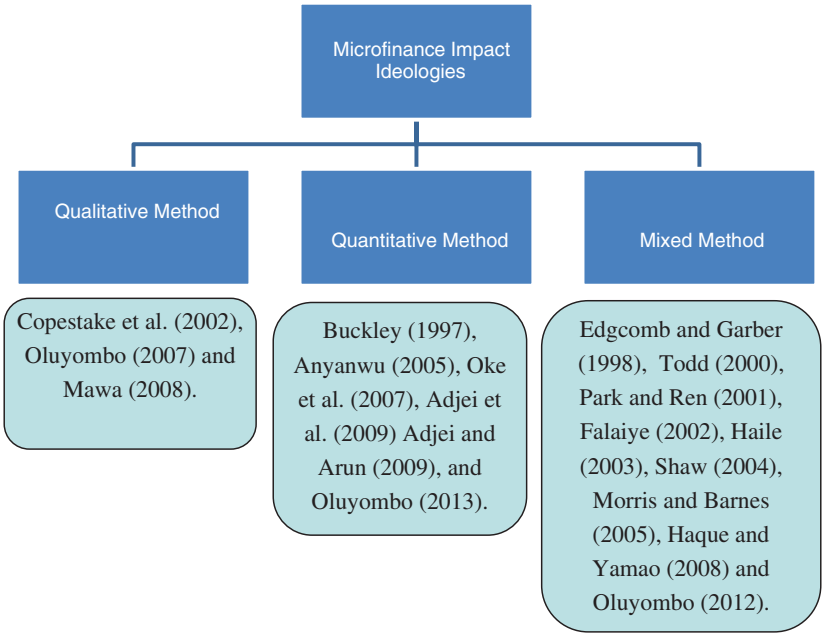

Fig. 8.1 Microfinance impact assessment ideologies

as convergent data" (Yoshikawa et al. 2008, p. 345). The dynamic nature of microfinance has necessitated the use of multiple methods in measuring their impact. Hulme (2000, p. 89) notes that the central methodological question is no longer, "what is the optimal method for this study?" but "what mix of methods is most appropriate for this study and how should they be combined?" The use of the mixed method for microfinance impact research is a welcome development. Moreover, while assessing various impact assessment methodologies for microfinance, Hulme (2000, p. 87) concluded that, "in future dealing, attribution by multi-method approach seems the way forward".

The use of the mixed method requires the determination of how the quantitative and qualitative methods will be combined. This may be carried out either concurrently—where data gathering for both methods is carried out at the same time period, or sequentially—where one method comes before the other, which means that one method is dependent on the other method. Since there are evidences of both qualitative and quantitative approaches in the literature as identified in Fig. 8.1, the choice of the mixed method by microfinance researchers aims to benefit from the advantages of both the qualitative and quantitative methods, which will reduce the disadvantages of using a single method. The advantages of mixed methods include the production of complementary data, the ability to obtain richer data, the result of which can be applied easily and the validation of findings in terms of accuracy. Mixed methods "can also make a study more acceptable to a broader audience, because they represent the world more completely" (Yoshikawa et al. 2008, p. 345) and "data generated by mixed methods can help to establish the validity of the data and the reliability of the measures of change through triangulation" (Sebstad 1998, p. 12). The benefits have been summed up by Pawlak and Szubert (2004, p. 3) that "a mix of methods will provide a complete picture" and by Nelson (2000, p. 3–4) "given the relative strengths and weaknesses of the two methods and the varied purposes they serve, good quality impact assessments increasingly employ both methods".

The review of methods adopted by previous studies which is shown in Fig. 8.2 revealed that microfinance impact assessment can be undertaken using either the longitudinal or the cross-sectional approach depending on the nature of the data and objectives of the study.

A longitudinal study involves the collection of baseline data that will enable the researcher to capture trends over time and to compare

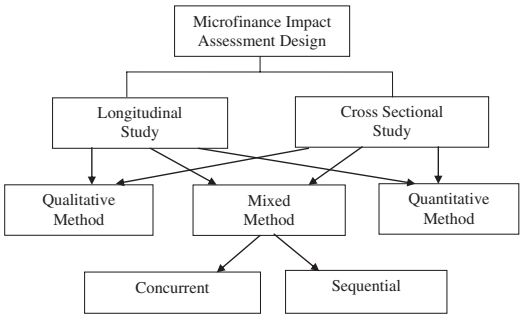

Fig. 8.2 Microfinance impact assessment methodologies

microfinance effects before, during and after a particular scenario so that changes over time can be measured or determined. A cross-sectional study is a collection of data at one particular period only, and it may make comparisons between two or more different groups within the microfinance programme possible. This involves comparing beneficiaries of microfinance programmes with non-clients, new clients or those that have left the programme.

8.6 Conclusion

Studies such as Copestake et al. (2002), Oluyombo (2007) and Mawa (2008) are qualitative without any statistical test. Adjei and Arun (2009), Adjei et al. (2009) and Oluyombo (2013) were completed the empirical study based on research hypotheses with statistical tests. Other studies (Edgcomb and Garber 1998; Falaiye 2002; Shaw 2004) are more of quantitative but with few statistical tests based on research hypotheses. However, Edgcomb and Garber (1998), Falaiye (2002) and Oluyombo (2012) used research proposition to determine the effect of the programme on the participants through interview and focus group discussion at individual level, while research hypotheses were used at household and enterprises levels through questionnaire. The three studies therefore combined research proposition and research hypotheses, which are recommended for those using the mixed method approach.

The choice of research proposition in addition to research hypothesis is to give room for different shades of opinions that cannot be assumed to be fixed or regimented which is beyond what a standardised questionnaire can be used to accomplish. The use of research proposition is to

understand how the financing role of microfinance institutions is interpreted by clients and the meaning giving to their participation in the programmes that cannot be covered in structured questionnaire. The use of interview and FGD as data collection instruments enables researchers to probe further into grey areas during data collection process, while research findings can be carried out by quoting the respondents verbatim. It also enables researchers to draw information directly from the programme participants which describe their personal experiences with the programme.

The qualitative question helps to understand the past challenges and successes of the programme on the members, which is beyond the issue of quantification or a stereo-type answer because the research proposition involves why and how of the programme were based on members opinion. Furthermore, the use of both the research proposition and hypothesis enables researchers to place their study, and it results within microfinance and other development finance literature. This will help in proper comparison of research findings with relevant studies and also enhance the quality of the study among other studies. It is recommended that future studies should strive for the use of mixed method such that both the qualitative and quantitative approaches are used in a single study.

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CHAPTER 9

What is Islamic Microfinance?

Luqyan Tamanni and Frank Hong Liu

9.1 Introduction

Islamic microfinance is a specialized part in a growing and diverse body of microfinance literature. To date there are quite a few papers on Islamic microfinance that are published in reputable journals, which fairly represent the size of Islamic microfinance industry compared to the overall microfinance sector. However, as more data becomes accessible to researchers, this segment will increase as interest on Islamic microfinance grows. This trend will follow similar surge in academic papers on conventional microfinance that started in the early 1990s. In addition to increasing popularity and success stories of many microfinance institutions, the availability of data has been the main reason for this surge (Brau and Woller 2004). This sudden increase in literature is documented in recent studies that take stock of what have been researched in microfinance in the last 2 or 3 decades, by among others, Armendariz and Labie (2011), Banerjee (2013) and Cull et al. (2013).

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Likewise, Islamic microfinance sector is slowly evolving from an academic experiment into a niche industry in many Muslim countries, such as Indonesia, Bangladesh, Sudan, Pakistan and Yemen. According to Consultative Group to Assist the Poor (CGAP), there are at least 255 known Islamic microfinance institutions in the Muslim world serving more than 1.28 million clients (El-Zoghbi and Tarazi 2013). While this development is encouraging, there are very few studies available that illustrate the feasibility, accurate description of size, and characteristics of these Islamic microfinance institutions (IMFIs). In fact, the literature on conceptual framework for Islamic microfinance is also relatively sparse compared to conventional microfinance, among the few includes Ahmed (2002), Smolo and Ismail (2011) and Abul Bashar et al. (2012).

The empirical studies are even more limited. For many researchers, the frustration begins early with the scarcity of data and its questionable quality. In the MIX market database, for example, Islamic microfinance institutions are only represented by about 38 MFIs from the population of 2500 MFIs from around the world. The problem might not be with the IMFIs, but possibly the structure of MIX self-reporting that does not provide incentive to many IMFIs. At least, CGAP researchers (El-Zoghbi and Tarazi 2013) managed to pull up to 255 IMFIs in their report. This in itself is again a small fraction of a true population of global IMFIs. In one estimate, Indonesia has over 3700 small-scale cooperatives offering Islamic micro-savings and financing services across the country (Adnan and Ajija 2015). The cooperative is known as BMT or *Baitul Mal wat-Tamwil*, literally means financial and investment house (Hadisumarto and Ismail 2010).

Despite obvious limitation in data and adequate literature, this chapter aims to provide an overview of Islamic microfinance in the context of mainstream microfinance sector, and highlights some of the salient features that differentiate Islamic microfinance with conventional or overall microfinance. The succeeding sections will discuss the origin, different approaches in the development, and characteristics of Islamic microfinance. These will be followed by discussion on lending models, sources and uses of funds, and poverty impact of Islamic microfinance institutions. Finally, this chapter will conclude will some thoughts on possible opportunities for future Islamic microfinance research.

9.2 Evolution of Islamic Microfinance

Islamic microfinance originates from the experiment of Mit Ghamr Savings Bank in the Nile delta of Egypt (El-Komi and Croson 2013). Mit Ghamr was essentially a cooperative designed to serve rural farmers and traders with *shariah*-compliant financial products, i.e. non-interest that are suitable to the local community; hence, it is also claimed as the first experiment of Islamic bank. Mit Ghamr was established by an economist Ahmad Al-Najjar, who upon returning from his graduate study in Germany wanted to provide the poor in his hometown with access to financial services. He was driven by his belief that a rural bank should invest in socially driven activities, such as educating customers on savings and the importance of capital accumulation (Mayer 1985). Al-Najjar borrowed some of the structure of Mit Ghamr experiment from German local savings banking Sparkassen, which impressed him during his stay as Ph.D. student in Koln, Germany (Çizakça 2011, p. 135). In its short life span from 1963 to 1967, Mit Ghamr was able to demonstrate that non-interest banking was possible.

However, Rahman (2007) and Dusuki (2008) point out that despite strong historical legacy, microfinance has been missing in the development of Islamic banking across the Muslim world until several years ago. Likewise, Shahinpoor (2009) provides convincing accounts on the already existing platforms within Islamic banking that allow the sector to offer microfinancing products and services. The nature of Islamic finance and banking products, which are based on risk-sharing principles encourage financial institutions to work with any type of customers, not only those with collaterals. In fact, most of the Islamic banking contracts do not require collaterals hence feasible for the banks to finance microenterprises or the poor. The nature of Islamic banking itself is also more than just a commercial entity, since working with the poor is a natural outlook of an Islamic bank (Dusuki 2008).

While these studies propose to expand the reach of Islamic banking to micro-entrepreneurs, the interest from Islamic finance industry at large has been discouraging, at least until several years ago (Table 9.1). The establishment of several key institutions offering shariah-compliant micro-loans to the poor in majority Muslim countries highlighted the emergence of IMFIs. As Table 9.2 indicates, there has been some encouraging development since Mit Ghamr, and in fact, the first purpose-built Islamic microfinance institution is Amanah Ikhtiar Malaysia, which was founded by the Malaysian government in 1987.

Table 9.1 Notable Islamic microfinance institutions

No.	*Islamic MFI*	*Legal structure*	*Country*	*Year established*
1	Mit Ghamr Savings Bank[a]	Rural Bank	Egypt	1963
2	Agriculture Bank of Sudan	Bank	Sudan	1975
3	Baitul Mal Wa-Tamwil (BMT)[1] Teknosa	Cooperative/BMT	Indonesia	1984
4	Amanah Ikhtiar Malaysia	NBFI	Malaysia	1987
5	Akhuwat	NGO	Pakistan	2001

Source MIX database, various source
[a]Mit Ghamr was closed in 1967 due to policy/political change in Egypt

Table 9.2 Differences between Islamic and conventional MFIs

No.	*Main features*	*Islamic*	*Conventional*
1	Source of funds	External funds, savings of clients, commercial banks, and Islamic charitable sources (i.e. *zakat, waqf*)	External funds, savings of clients, commercial banks
2	Mode of financing	Islamic financial instruments	Credit on interest
3	Outreach (financing the poorest)	Poorest can be included by integrating zakat with microfinancing	Poorest are discretionally left out. No inclusive system in place
4	Funds transfer	Good transferred	Cash given
5	Deduction at inception of the contract	No deductions at inception	Part of the funds deducted at inception
6	Target group	Family	In most cases, women
7	Objective of targeting women	Ease of availability	Empowerment of women (gender affirmation)
8	Liability of the loan	Recipient and spouse	Recipient
9	Work incentive of employees	Monetary and religious	Monetary
10	Dealing with default	Group/centre/spouse guarantee, and Islamic ethics	Group/centre pressure
11	Social development programme	Religious (includes behaviour, ethics and social)	Secular behavioural, ethical, and social development

Source Ahmed (2002)

9.3 Defining Islamic Microfinance

Islamic microfinance can be defined as provision of microfinancial products and services based on Islamic principles, which is similar to a definition of microfinance in general but a reference to Islamic principles (Wilson 2007). The main characteristic of Islamic microfinance is the absence of *riba* (or usury), *gharar* (risk or ambiguity in transactions) and the use of different financing contracts, unlike conventional system that relies heavily on interest charged on credit or loans.

Prohibition of *riba* is an important concept in Islamic finance, and more broadly in Islamic economics. *Riba* is an Arabic word for 'addition' or 'increase', and generally being defined as any form of interest in financial transactions, although some scholars limit riba only to usury (Noorzoy 1982). Islamic scholars have unanimously agreed that *riba* is prohibited, as it is mentioned clearly in the Quran and Hadith (saying of Prophet Muhammad). However, there have been some disagreements on the definition of *riba,* especially whether *riba* is considered as interest, e.g. any form of financial charges, or it is referred to usury, which is an excessive form of interest (F. Rahman 1964). As such, these differences of opinion have led some countries not having any notable strategy and specific regulation on Islamic finance. Despite this situation, many of the Muslim countries have put in place some kind of regulation and enabling policies to develop Islamic finance sector, including microfinance.

Gharar may be defined as danger of loss, risk or uncertainly (Mahmoud A El-Gamal 2001). Risk per se is not prohibited until it is included in the contract or transaction which may create uncertainty to either party. In this regard, Islamic law prohibits any form of transactions that involves *gharar* or bay *al-gharar* (sale of risk); hence, prohibition of *gharar* is in the context of 'sale of probable items whose existence or characteristics are not certain, due to the risky nature which makes the trade similar to gambling' (El-Gamal 2000). *Gharar* is prohibited to prevent speculation that may put one party at a disadvantage, either due to asymmetric information, moral hazard or other forms of hazards created by uncertainty. However, prohibition of *gharar*, and for that matter riba, may increase the premium imposed by Islamic financial institutions to their customers, although there is no significant effect to typically loyal customers (Berg and Kim 2014).

There are at least three types of contracts available in Islamic microfinance, namely equity based or micro-equity, trade finance-based or

micro-credit, and charity based. Of these models or contractual arrangements, the partnership contract of *musharakah* is seen as the most suitable for Islamic microfinance institutions (Smolo and Ismail 2011). In *musharakah*, both IMFI and its borrower are partners in a business venture, where sharing of equity (one can contribute goodwill, cash or other form of assets) or profit/loss is agreed upon at the beginning of the contract. However, in practice, most of the Islamic microfinance institutions predominantly use *qard hasan* (benevolent loan) and commercial mode of *murabahah* (cost plus financing) as suggested by Ahmed (2002).

This is unfortunate, as *musharakah* and *mudarabah* contracts have some advantages compared to other types of contract such as *murabahah*. For instance, *musharakah* provides adequate commercial incentive for IMFIs and banks (Akhtar 1997), protects the borrowers from inflation pressure on their assets or investment (Abdalla 1999), and it could also provide a basis for sustainable form of financing for the economy at large (Harper 1994).

In recent years, there are several attempts that explore the application and applicability of these schemes to Islamic microfinance, such as housing finance using Islamic cooperative scheme targeted for the poor (Ebrahim 2009), or an experiment on the repayment behaviour of Islamic microfinance borrowers as tested by El-Komi and Croson (2013), who use experimental economics to confirm the feasibility of Islamic microfinance in the context of information asymmetry and verification.

These studies suggest that Islamic microfinancial services are robust and in certain cases more efficient that other types of financial services targeting the poor. In the case of El-Komi and Croson (2013), the experiment results show that borrowers using *mudarabah* and *musharakah* contracts are more likely to comply with their terms of loans than those under interest-based loan arrangement. It is suggested that Islamic microfinance is more efficient where information asymmetry assumption holds. Similarly, Smolo and Ismail (2011) find that Islamic microfinance would be able to resort to more sources of funding than their conventional counterparts, as well as use more variety of products to suit different type of clients.

9.4 Characteristics of Islamic Microfinance

As has been explained by Smolo and Ismail (2011), there are three main contracts used in Islamic microfinance, namely partnership or equity based, trade finance-based and charity based. They are similar to what being used by other Islamic financial institutions (IFIs) such as Islamic bank. Islamic microfinance products and services will have similar characteristics as the other IFIs, namely risk sharing based, deferred payment, rental or leasing based, and some form of guarantee schemes. The only additional product available for Islamic microfinance institutions is mobilization of funds through charitable arrangements, such as *zakat* (obligatory alms tax), *sadaqah* (voluntary donation), and *waqf* (perpetual trust endowment).

9.4.1 Partnership and Risk-Sharing Contract

Partnership contract consists of two types, namely *musharakah* and *mudarabah*. *Musharakah* is equity partnership that involves two or more parties, in which all parties contribute capital to the partnership in the agreed proportion. There are also other variants of *musharakah* where partners can also contribute other assets to the venture, such as good will (*shirkah al-wujuh*) and fixed assets. On the other hand, *mudarabah* is a partnership between investors (those who bring money/capital to the venture, or *rabb al-mal*) and those who manage the venture (or *mudarib*). However, partnership contract of *musharakah* is seen as the most suitable for Islamic microfinance institutions (Abdalla 1999; Akhtar 1997; Harper 1994).

In conventional finance, *mudarabah* contract is similar to venture capital structure. What differentiates partnership contracts in Islamic finance with other forms of financing is strict adherence to some conditions to the contracts. These include prior agreement on the business activities to be taken (that must be permissible in nature), profit sharing ratio, liability of each contracting parties, and tenure.

9.4.2 Trade Based or Deferred Payment Contract

Murabahah is essentially a trading contract that allows the buyer to pay the good in instalment at a marked-up price. It is often referred to as cost plus financing. In principle, client will request the IMFI to finance

its purchase of inventory or capital goods in return for marked-up payment in series of instalments. The IMFIs will then order the goods from the third party and pay it in cash (or any other arrangement it may have with the supplier) and request the goods to be delivered to the client. The profit margin gained by the IMFI, mode of delivery, and the terms or duration of payment by the client must be agreed upon before the signing of financing contract.

9.4.3 Rent or Leasing

Ijarah, a form similar to leasing, is an important form of Islamic finance contract as it provides customers and financial institutions with an option for a flexible contract, i.e. earning revenue from an asset without losing its ownership rights. This is not possible if the bank or MFI use credit contract. *Ijarah* constitute both financial and operating lease, and can be further classified into simple *ijarah* (rent or leasing throughout the duration of the contract) and *ijarah* that leads to transfer of ownership (*ijarah wa iqtina*).

9.4.4 Charity

There are three modes of charity in Islam, namely zakat or compulsory alms tax, *sadaqah* or voluntary charity, and *waqf* or perpetual charity in the form of trust endowment (Sadeq 2002). These forms of charity have existed from the beginning of Islamic history, and they are used as a method of wealth distribution. Zakat is obtained from the wealth that has surpassed certain minimum level (*nisab*) and in possession of at least one year (*haul*) with the rate ranging from 2.5 to 20%. For gold, silver, financial assets and their equivalents the rate is 2.5%, agriculture produce with man-made irrigation system is 5%, agriculture produce relying on rain fall is payable at 10%, and anything found without any effort, such as treasure, valuables extracted from nature are liable for 20% of zakat.

Zakat is generally collected and managed by charitable or religious organizations, whereas in some countries where zakat is mandatory for qualified Muslims it is collected by the states or designated organizations. In recent years, there have been some attempts to incorporate charitable fund raising mechanism into microfinance (Obaidullah 2008).

9.5 Technical Differences with Conventional MFIs

The definition of Islamic finance by Mirakhor and Zaidi (2007) offers a clear perspective on the main differences between Islamic and conventional microfinance. They suggest that, '…(under conventional system) the interest rate is either fixed in advance or is simple linear function of some other benchmark rate, whereas in the (Islamic banking), the profits and losses on a physical investment are shared between the creditor and the borrower according to a formula that reflects their perspective levels of participation (Mirakhor and Zaidi 2007, p.49)'.

The other features of Islamic microfinance can be discussed in light of some technical aspects as suggested by Ahmed (2002), namely (a) source of funds, (b) mode of financing, (c) outreach (financing the poorest), (d) funds transfer, (e) deduction at inception of the contract, (f) target group, (g) objective of targeting women, (h) liability of the loan, (i) work incentive of employees, (j) dealing with default, and (k) social development programme.

a. Source of funds

The sources of funds for IMFIs derive from several sources, some of which are similar to their conventional counterparts such as external funding from donor agencies, savings of the clients, commercial loans from banks or other financial institutions; and the rest are unique to IMFIs namely charity and trust endowment.

b. Mode of financing

Modes of financing in Islamic microfinance are various, sometimes developed as combination or extension of three or four basic contracts, which are sales (*murabahah, salam, istisna*), partnership (*musharakah, mudarabah*), leasing (*ijarah*), and benevolent loan (*qard hasan*). Most of IMFIs use murabahah or cost plus sales contract for commercially driven loans and *qard hasan* or benevolent loan contract for poverty alleviation driven loans.

c. Outreach

With the integration of charity into microfinance operations, IMFIs have the advantage of focusing on outreach using charitable funds

without any restriction on cost or profit considerations. This will enable IMFIs to improve their depth and, possibly also, breadth of outreach. For the conventional MFIs, they may have to face a dilemma or trade-off and choose between outreach and sustainability.[2]

d. Deduction of loans received

An IMFI will not be able to deduct the amount of loan received by a client or impose any other restriction, mainly because the Islamic financing mechanism requires MFI is handing over the good as required by the client and not cash.

e. Target group

IMFIs generally emphasizes on family as the main beneficiary and client, which is shown in the financing or loan structure where a husband is always part of the liability borne by women's borrowing, although not applied in the reverse situation. The purpose of loan also directed towards empowerment of the family as the smallest unit in a society. While gender affirmation is also acknowledged and supported, as more than 60% of clients in Islamic microfinance are women, the focus is slightly broader.

f. Objective of targeting women

The preference of women clients to man is guided by their availability and feasibility to work on the financing received from the MFIs. Most of the women clients already have micro-business at home and necessary skills to advance the business, which may not always be the case with their husbands who either already working as farmers, day labourer or other occupation.

g. Liability of the loan

The spouse is also responsible for the loan his wife is receiving, hence provides a higher sense of responsibility to properly utilize the loan.

h. Work incentive of employees

For micro-entrepreneurs, working in the business to earn an income for the family is considered religious duty. This may motivate IMFIs

clients to be more responsible and work with higher motivation, compared to only working for money as may be the case for borrowers of conventional MFIs.

i. Dealing with default

In the case of default, the clients of IMFIs can resort to charitable funds to help them with debt, where they are unable to pay the loan. Charity funds such as zakat, in this case, can function as a buffer of safety net for IMFIs.

j. Social development programme

Islamic microfinance is driven by both social and to a degree religious responsibility. This may lead to incorporation of religious sentiment in the microfinance programme, such as using mosque as a place for disbursement and collection in the case of Akhuwat. This was done to create a sense of religious responsibility in managing the money received as loan, i.e. to be diligent with its use and repay it on time. This approach has not been introduced by conventional MFIs.

The Table 9.2 summarizes the differences between Islamic and conventional MFIs, which have been discussed above.

9.6 Lending Methods of Islamic Microfinance Institutions

From a recent study by Consultative Group to Assist the Poor (El-Zoghbi and Tarazi 2013), it is suggested that majority of Islamic microfinance institutions are operating as rural banks (up to 77%), followed by Non-Governmental Organizations or NGOs (10%), non-bank financial institutions (5%), cooperatives (4%) and commercial banks (3%). While this is based on sample size of 255 IMFIs, the real proportion from overall population of IMFIs worldwide could be similar to this study. What the study also reveals is that commercial Islamic banks (represented by only 3%) seize some 60% of the Islamic microfinance market share, i.e. number of clients reached, much more than the NGOs and rural banks that only serve about 17 and 16% of the clients, respectively.

To understand the CGAP survey in country context, the following operational or lending models of notable Islamic microfinance

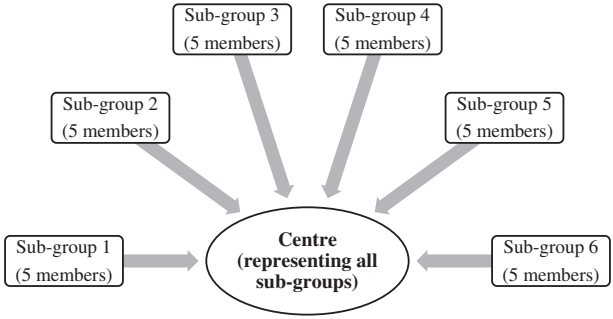

Fig. 9.1 Grameen bank group lending structure. *Source* Grameen bank website; Khandker (1996)

institutions are discussed. The typology of the lending models encapsulates the types of existing IMFIs, which mainly based on group versus individual lending models. The following will elaborate in more details based of this typology using select case studies of notable Islamic microfinance institutions in the respective lending models.

9.6.1 Group Lending Models

There are three types in the group lending category, namely Grameen model, Solidarity or Self-Help Group (SHG), and Village Banking model (Ledgerwood et al. 2012). Grameen model is characterized by small sub-group membership (usually five), a centre of up to six sub-groups constitutes the lending group of the MFI, and finally each member in the sub-group guarantees the loan of other member while in turn the centre acts as secondary guarantee. Likewise, Solidarity groups consist of slightly larger membership (up to 10 members) per group and each member guarantees each other's loan in the group. Finally, village banks are formed by 15–50 people and offer loans to the group members. The loan usually comes from the savings of the members or other sources externally (Fig. 9.1).

The above model has been used by MFIs adopting the Grameen system or group lending model, which include Amanah Ikhtiar Malaysia (AIM), and some IMFIs operating as Baitul Mal wat-Tamwil in Indonesia. Other group lending models, such as Solidarity and Village Banking operate in the same way, with the removal or extension of membership and sub-group limit in their centres. Most of the IMFIs in the dataset that

use group lending model are following Grameen model, which is why the cases presented here are those replicating Grameen's group lending model.

9.6.1.1 Amanah Ikhtiar Malaysia (AIM)

Amanah Ikhtiar Malaysia (AIM) is among the early replica of Grameen Bank, established in September 1987 by two professors of Economics from University Sains Malaysia, namely David Gibbons and Sukor Kasim. While the lending model and group formation are very similar to Grameen Bank, AIM chose a different pricing scheme, i.e. using *qard hasan* mode of financing in adherence to Islamic principle, mainly because the initial capital of the Ikhtiar Project came from the Islamic Economic Development Foundation of Malaysia (YPEIM), a government-linked institution (Hulme 1990).

With its sustained success and strategic value to improve economic well-being of the Malay population, the government continues to support AIM, especially in channelling some of its rural development funds through AIM and also actively involved in the AIM's board. Although AIM is registered as private trust, the government remains in control through YPEIM, which is a government-linked welfare foundation, and direct contribution of funds through Ministry of Finance and Ministry of Rural Development (Al-Mamun et al. 2014). As of February 2015, AIM has extended micro- and small loans to more than 356,500 borrowers through more than 60,000 groups at 6650 centres across Malaysia. These groups and centres are ultimately managed by 87 branches across the country.

One of the key success factors for AIM is its singular approach and significant government support. AIM is the largest, and possibly the only, microfinance institution in Malaysia. As alluded by (Hulme 1990), the government of Malaysia designed its poverty alleviation programme around the model used by AIM, hence allowing AIM to design large-scale programme with full government support. This has indeed proven to be instrumental in the success of AIM and Islamic microfinance in Malaysia (Ismail 2001; Saad 2012).

9.6.1.2 Baitul Mal wa-Tamwil (BMT), Indonesia

Baitul Mal wa-Tamwil is uniquely Indonesian model. BMT itself is an acronym of the Arabic terms, which can be translated freely as 'fiscal and financial institution'. Although it is Arabic, there is no known parallel of BMT in the form or Islamic microfinance institution in the Arabic-speaking countries. BMT was initially religious institution introduced

by Islamic organization in Indonesia to help facilitate business activities of its members. The first experiment of IMFI in Indonesia was Baitut Tamwil Teknosa, which is founded by students and alumni of the Institut Teknologi Bandung (ITB) in 1984. However, this experiment was unsuccessful and did not last long. The first truly BMT was launched in 1992 in Jakarta by a group of Muslim scholars using the name BMT Bina Insan Kamil. As this BMT became a successful venture, several others BMTs were introduced by various Muslim organizations. In 1995, these new IMFIs formalized their organizations into one umbrella organization called Centre for Small Business Incubation (Pinbuk).

Initially, there was no specific regulation on MFI during the early period of early 1980s to late 1990s; the BMT was formally registered as a cooperative or foundation. There was a problem then, as cooperative can only serve members. Because most of the customers of BMT are not necessarily want to be a member, they are being registered as applicant for membership (or expected member), which is permissible under the cooperative act.

Despite this limitation and imperfect regulatory setting, BMT has grown from a dozen in 1995 to more than 3700 by the end of 2014 (Adnan and Ajija 2015). Similar to Akhuwat, some BMTs use *qard hasan* as their primary mode of financing, while many others are using commercial mode of financing such as *murabahah* that many suggest similar to conventional credit. BMT model is not perfectly working, indicated by many failures over the years and more than half of the existing 3000 registered BMTs are of unknown quality. Low capital requirements and easy registration and licensing process have attracted many individuals and foundations to establish BMT. However, with the new law on microfinance introduced in January 2013, the regulatory requirement and supervisory regime for Islamic microfinance is now much clearer and more stringent.

The main advantage of BMT is its ability to reach out the very poor, due to its relatively small size and location within the poor communities in rural areas or urban centres. Although majority of BMTs are registered as cooperatives, they operate more like rural banks that can mobilize savings and extend loans. Few BMTs are also offering micro-takaful to their customers, for instance BMT Sidogiri in East Java and BMT Tazkia in West Java.

9.6.2 Individual Lending Models

Individual lending model is mainly offered by commercial-based MFIs such as Islamic rural banks or commercial banks specializing in

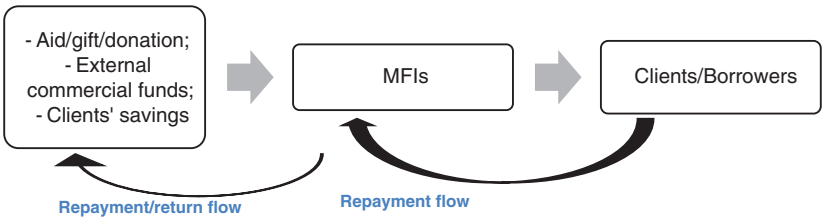

Fig. 9.2 Individual lending structure

microfinance like Family Bank in Bahrain. There are very few IMFIs structured as NGOs that offer individual lending, most prominent among this group is Akhuwat. Individual lending is similar to banking lending, where individual borrower or client is assessed and responsible for the loan individually. Unlike the group lending, where the other group members become guarantor for the borrower, individual lending often requires the borrower some form of collateral or a guarantee from the spouse or other immediate family member of the client (Fig. 9.2).

9.6.2.1 Akhuwat, Pakistan

Akhuwat is an NGO and voluntary driven microfinance programme in Pakistan, in which funding sources are mobilized by volunteers from benevolent Muslim and social organizations. Since its establishment in 2001, Akhuwat has disbursed US$25 million and outstanding loans with more than 469,000 clients. What makes Akhuwat interesting is its method of disbursement. On any disbursement day, all borrowers are invited to a mosque, or in a few instances to a church where borrowers are Christians, and all the eligible clients are handed over the loan while being witnessed by everybody else (Harper 2012).

The method of disbursement in a public space reinforces the peer pressure and reduced moral hazard. While this is not specifically prescribed in Islamic teaching, the innovation is hitherto unique to Akhuwat. However, this method seems to be working well with the qard hasan mode used by Akhuwat (Harper 2012). The method is indeed effective in reaching out large poor population, although the model relies heavily on voluntary donations for funding and volunteer staffs for disbursement and clients' management.

For other institutions to replicate Akhuwat model, it will require more than just the availability or willingness of many volunteers. Prevailing

social trust and cohesion in the Pakistani society provide an impetus and enabling factor for the model to work and deliver fascinating results. Akhuwat model also depends on continuous supports from thousands of individual or institutional donors and contributors, which highlight the importance of an army of volunteers.

9.6.2.2 Family Bank, Bahrain

Family bank is a new generation of Islamic commercial bank focusing exclusively on small and medium enterprises customers and operates fully as micro-banking. Family Bank was established in 2009 in a country with very few poor families; per capita income of Bahrain is about USD 10,000 and poverty incidence is only 2%, representing nearly 120,000 of six million people in the Kingdom. As a commercial entity, the bank works with Grameen Trust as strategic partner, especially for poorer segment of the market. The Grameen programme is targeting loans with the average take of USD 100 to USD 500, while the commercial micro-loan is between USD 500 to USD 5000 (Shabrawy 2011).

Family Bank is not the only commercial micro-bank in the Muslim world, similar institutions have recently sprang up in Indonesia (BRI Syariah), Bangladesh, Pakistan and perhaps much earlier in Sudan (Agricultural Bank). This is a relatively good start for the Islamic microfinance industry, especially to provide a platform for seamless transition of the micro-entrepreneurs from being MFI clients to commercial bank's customers.

However, the main challenge for some of these commercial Islamic banks is defining their market segment and making a profit. In the case of Family Bank of Bahrain, for few years it was still making losses since its inception in 2009; while for BRI Syariah in Indonesia, the challenge is to stay true to its vision as an Islamic micro-bank and not retail or consumer Islamic bank, as its financing portfolio currently suggest (70% retail, 25% SME/micro).

9.7 Sources of Funding for Islamic Microfinance Institutions

As the sector grows and competition intensifies, securing funding for the fast growing number of clients is among the key ingredients for future success and survival of IMFIs. While funding sources might not be limited, for now, selecting the one that suits internal strategy and targeted group of beneficiaries is crucial.

Savings and deposits that are designed to mobilize funding from clients or other third parties remain important instruments for many MFIs.

For instance, in 2010, MIX Market (www.mixmarket.org) recorded that deposits and savings account for nearly half (47.56%) of the funding structure for most MFIs in the world. Debt and equity follow suit with 28.79% and 18.29% contribution to the total funds raised by MFIs. Further, Maisch et al. (2006) find that 65% of these MFIs are relying on deposits, while the remaining sources are borrowing from international institutions (27%), shares or equity (20%), and only a fraction of 1.7% based on bonds (long-term debt). Deposits constitute 74% of time deposit, 26% savings and negligible 0.1% from checking account.

For Islamic microfinance, shariah-compliant funding instruments are widely available and should provide alternatives for IMFIs. One such example is *sukuk*, which in recent years has been considered as an attractive way to raise funds, but yet to be launched, to support the expansion of microfinance institutions. The main obstacle in attempting to issue *sukuk* is a long and demanding process and procedure, despite an obvious demand and the fact that many investors are already familiar with *sukuk* structure. However, in the long run, this method should be considered as a feasible and possibly the least costly mode of funding for microfinance. Other than these traditional products as above, the following alternatives are worthy of mentioned and discussed.

9.7.1 Zakat and Charity

Zakat is an obligatory contribution collected from the wealth of higher income individuals to be used for eight specific purposes or beneficiaries, or according to Iqbal and Lewis (2014) it is 'the only divinely ordained levy in Islam'. Bonner (2005) defines zakat as institutional or involuntary alms tax imposed on the Muslim community. Although obligatory, zakat collection is not mandatory as tax collection in many Muslim countries. Zakat is treated similar to other charitable donations made only by those aware of its nature as religious obligation or those who live in countries where its collection has been made mandatory or integrated with tax.

The beneficiaries of zakat are mostly the poor with specific circumstances, such as those who are in destitute, very poor, in severe debt, travelling or striving for a better life or in education, and new converts to Islam. Traditionally, zakat can only be collected by government or officially appointed religious institutions, however with the advance of Islamic financial institutions and their ability to penetrate remote areas, they have been given limited opportunity to mobilize and manage zakat from the community.

For Islamic MFIs, this opens up an opportunity to raise religious funds that can be used to support their microfinancing programmes, such payment of debts to loan sharks, as a soft loan (with *qard hasan* or grant) to the poor prior to engaging them with productive types of loan. Zakat and other charities could also be used by IMFIs as safety nets in the event of default by the poor clients (Kaleem and Ahmed 2009). However, this allocation of zakat funds should only be used with strict adherence to guidelines stipulated in Islamic law, as zakat is a religious obligation with specific rules in its collection and allocation.

In addition to zakat, there are other charitable means that IMFIs can tap into, particularly through charity organizations owned by the government or private organizations. For instance, large charities in the Gulf or other oil-rich countries have been allocating generous portions of their funds to microfinance programmes across many regions, including North Africa, South Asia, and South East Asia.

9.7.2 Waqf and Trust Funds

Waqf or trust is another important component of voluntary sector that could be linked with Islamic microfinance. A detailed discussion on the origin and development of *waqf* is provided by Kuran (2001), who examines the history of *waqf* and explores its limitation and implication to modern economic settings.

Some Islamic microfinance models using *waqf* or *awqaf* have been proposed by among others Obaidullah (2008), Kaleem and Ahmed (2009) and Haneef et al. (2015). The main advantage of *waqf* is its perpetuity, where IMFIs could use the *waqf* fund for many years or as long as its use is within the prescribed objectives of the trust fund and with the approval of the trustee, hence ensure sustainability. The other advantage is to designate *waqf* for exclusive allocation or use to help the poor through microfinancing, where all the *waqf* funds that are raised or set aside are used to fund microfinance. In this instance, *waqf* can be allocated as capital as well as funding of the IMFIs.

Similar approach has been used in corporate *waqf* model, where private companies like Sabanci in Turkey or Johor Corporation in Malaysia set up an endowment fund and use any profits generated from investment of the fund to support social and educational activities. In fact, *waqf* can be found is all Muslim countries with different degree of sophistication and various size or forms. In microfinance, some IMFIs

in Indonesia and Pakistan have adopted *waqf* as a funding mechanism, although still early days to assess its success or limitation. The *awqaf* microfinance model is indeed a new frontier that should be further studied and in time to be extended to more countries.

9.7.3 Social Enterprises

The involvement of corporate entities and private companies in poverty alleviation becomes more prominent with the global recognition of Grameen Bank as champions of micro-credit and the fight against poverty. Many corporations around the world wanted to associate themselves with Grameen for social and profit-making purposes. These ensuing joint ventures later on gave birth to social business movement (Yunus and Weber 2007). The social business model is defined as a self-sustaining company that sells goods or services and repays its owners for their investments, but whose primary purpose is to serve society and improve lives of the poor. In this model, companies and Grameen typically establish organizations that produce special products to serve specific markets in Bangladesh or elsewhere, for instance the case of Grameen Danone that provides affordable dairy products to the poor in Bangladesh.

The other notable organizations that are developing social enterprises include BRAC and ASA in Bangladesh that has been using this model to develop its relief operations in the 1970s to a global development organization as today. In the case of Islamic microfinance, the only notable case is Bab Rizq Jameel, an IMFI established by Abdul Latif Jameel Foundation of Saudi Arabia that operates vocational training centres and microfinance programmes in the Middle East.

9.7.4 Investment Funds

A similar model to social business is social impact investment (or impact investment). In this model, fund managers or private equity firms create specific microfinance funds and then raise money from investors. The proceeds are then invested typically in baskets of MFIs in developing countries. For investors, impact investment is regarded the same as emerging markets, the term referred to as a class of portfolio investments. As most MFIs are operating with high margin, prolong

profitability, and high repayment rate, the funds are very attractive to many global investors.

In this 'genre', there are also companies that behave less like fund manager but like real investor. This investment model has consequences to many Islamic microfinance operations. First, the funds only invest in MFIs that have some track records (outreach, profitability) and future income possibility, i.e. generating profit for certain period of time. This may require a change in the microfinance programme management, mainly a shift from social orientation to profit (mission drift). Second, and most importantly, it requires a major change in the capital and governance structure of the microfinance institutions. With the injection of new funds, investors may request rights of ownership or management change.

According to a survey by Symbiotic (www.syminvest.com) on Microfinance Investment Vehicles (MIVs), the total assets of these funds in 2014 have reached more than USD10.4 billion, with a growth rate of about 16% in total assets. Although there is no dedicated *shariah*-compliant or Islamic microfinance fund currently available or recorded, yet the prospect and demand are certainly there in the market.

9.7.5 Peer-to-Peer and Crowdfunding Model

Crowdfunding is an important innovation in finance that brilliantly embraces Internet platform of sharing and collaboration. Person-to-person or peer-to-peer (P2P) loan was made popular by most prominently Kiva.org in 2005, as a way to facilitate individual lender to support the poor with a small but usually repeating loans. Kiva and other platforms have also been featured in research publication, among others Flannery (2007), Ly and Mason (2012), and Bruton et al. (2015). The simplicity of online platform used by Kiva has attracted 1.3 million individual lenders from many countries since its launch, and together they have provided small loans in more than 80 developing countries. Currently, Kiva works with more than 300 field partners or MFIs, including IMFIs in interest fee-based loans.

An Islamic equivalent to Kiva is Wafaa (www.wafaalend.org), which was launched in 2008. Wafaa is currently based in London and provides financing to poor Muslim countries or Muslim communities in crisis-affected countries. To date, Wafaa has managed to finance 3530 micro-entrepreneurs with accumulated projects worth of USD 12.2 million in

six countries. The number for micro-lenders has reached nearly 600 individuals.

9.8 The Global Presence of Islamic Microfinance

Islamic microfinance has enjoyed a relatively strong growth in the past 10 years, along with the 'booming' of Islamic banking and finance. Unlike Islamic finance, which is driven mainly by such financial centres as Dubai, Kuala Lumpur and London, Islamic microfinance is emerged in developing countries. It flourishes in the developing economies of South Asia (Pakistan, Bangladesh), South East Asia (Indonesia, Malaysia) and Sub-Saharan Africa (Sudan). Among the front-runners are Islami Bank Bangladesh, Akhuwat in Pakistan, Amanah Ikhtiar Malaysia and Agricultural Bank of Sudan.

Today, Islamic microfinance institutions can be found in more than 15 countries, as in Table 9.3, across Asia (Afghanistan, Indonesia, Bangladesh, Pakistan, and Malaysia), Middle East and North Africa (Bahrain, Egypt, Iraq, Jordan, Lebanon, Palestine/West Bank, Sudan, and Yemen), Central Asia (Kazakhstan, Kyrgyzstan) and Eastern Europe (Bosnia Herzegovina, Kosovo). The number of countries is certainly under-represented, as new and more IMFIs are emerging rapidly in regions such as East and West Africa. The table below provides a partial list of IMFIs.

9.9 Conclusion

Studies on microfinance have evolved through the decades, both in conceptual framework and empirical studies. The growing body of knowledge in microfinance is expanded also due to the rapid development of microfinance sector, indicated by the increasing number of microfinance institutions in the past three decades. While the pioneers like Grameen Bank, BancoSol and Bank Rakyat Indonesia remain prominent players in their respective markets, the number of players competing in the microfinance markets has certainly increased significantly. This is evident from the studies highlighted in this chapter, as well as the number of MFIs recorded in microfinance database such as MIX Market.

The same can be said about Islamic microfinance, although to a lesser degree of size and magnitude. As indicated in the 2013 CGAP report cited earlier, Islamic microfinance is an important sub-sector in the

Table 9.3 Selective lists of Islamic microfinance institutions

No.	*Country/IMFIs*	*Legal status*	*Gross loan portfolio (US$)*	*Number of active clients*
1	*Afghanistan*			
	Islamic Investment and Finance Cooperatives	Cooperative	20,424,136	22,711
	Mutahid DFI	NBFI	888,609.9	3194
	FINCA – Afghanistan	Village bank	14,825,274	29,047
2	*Bahrain*			
	Family Bank[b]	Bank	3,553,286	572
3	*Bangladesh*			
	Muslim Aid	NGO	6,462,103	39,528
	Islami Bank Bangladesh – Rural Development Scheme[b]	Bank	267,053,105	569,820
4	*Bosnia Herzegovina*			
	Prva Islamska Mikrokreditna[b]	NGO	940,208	1321
5	*Egypt*			
	Bab Rizq Jameel[a]	NGO	1,943,510	8577
6	*Indonesia*			
	MBK Ventura	NBFI	58,125,357	492,991
	BPRS Harta Insan Karimah[b]	Rural Bank	26,832	–
	BMT Ventura (137 BMTs)[b]	Cooperative	4,734,410	14,316
7	*Iraq*			
	Al-Takadum[a]	NGO	12,010,759	12,023
	Al-Thiqa[a]	NGO	33,972,397	15,572
8	*Jordan*			
	FINCA - Jordan	Village Bank	7,599,086	15,416
9	*Kosovo*			
	START Microfinance	NBFI	2,733,593	3000
10	*Lebanon*			
	Al-Majmoua[a]	NGO	30,773,890	36,726
11	*Malaysia*			
	Amanah Ikhtiar Malaysia[b]	NGO	383,101,081	241,965
12	*Pakistan*			
	Akhuwat	NGO	24,986,066	235,517
	Wasil	NGO	1,087,899	4537
13	*Sudan*			
	Family Bank	Bank	63,056,518	58,909

(continued)

Table 9.3 (continued)

No.	*Country/IMFIs*	*Legal status*	*Gross loan portfolio (US$)*	*Number of active clients*
	Pased	Bank	1,291,425	6006
14	*Syria*			
	Jabal al-Hoss[a]	NGO	1,118,960	1128
15	*Yemen*			
	Al Amal Microfinance Bank	Bank	63,056,518	58,909

Source Authors' estimate from various sources, including latest MIX Market Database (www.mixmarket.org), Sanabel Network (www.sanabelnetwork.org)[a] and individual MFIs annual reports[b]

overall microfinance movement globally. Among the key reasons is the economic condition of many Muslim countries, where nearly half of the 1.6 billion Muslims live in poverty. There is certainly a growth potential for IMFIs in these countries, as 40% of Muslims worldwide that are surveyed by CGAP in 2008 and 2009 have a preference to Islamic mode of financing.

Unfortunately, there is a shortage of studies in the literature that examine the feasibility and reliability of Islamic microfinance models. The existing literature on the subject is largely conceptual and normative, which provides little information on the current status of IMFIs and even much less evidence on the performance of these institutions. This gap provides an exciting opportunity for many researchers to examine more closely the important and highly debated aspects of IMFIs, such as mission drift issues, trade-off between financial performance and social impact or profit vs. outreach, impact of rising competition from commercial banks, commercialization or even impact assessment.

Going forward, the challenges facing Islamic microfinance sector and its many institutions are coming from various directions. They may include intensifying competition from commercial Islamic banks and conventional banks or MFIs, tightening of regulatory framework governing MFIs in many jurisdictions, securing sustainable funding as many donor funds or government subsidies are evaporating, as well as balancing a prevalent trade-off between poverty outreach and financial sustainability.

Competition is probably the main theme for many providers of Islamic microfinance, in addition to funding sustainability and balancing between the bottom lines or choosing the right lending models that are available. The challenging situation can be best explained by the state of competition in the sector, whereby up to five key providers can control between 70–80% of the market share. In Indonesia for instance, the microfinance sector literally belongs to the big players such Bank Rakyat Indonesia, Bank Mandiri, BTPN and few other commercial banks. The same is true with the dominance of BRAC, ASA and Grameen Bank in Bangladesh; and in a larger scale, multinational groups such as BRAC, FINCA or Accion operate locally in many countries with established lending model and products, as well as access to funding from international markets.

In response to such competition, Islamic microfinance may be forced to embrace commercial path and in turn put aside its mission of poverty alleviation. This will eventually put Islamic microfinance into the same situation currently facing conventional microfinance institutions, which is prone to mission drift, commercialization and in few instances issues related to high indebtedness of their borrowers. What will be interesting for researchers are how will Islamic microfinance institutions deal with these challenges, would they react in the same manner as their conventional counterparts, or come up with different and more effective responses to competition. This undertaking is beyond the scope of this chapter, but certainly feasible topics for future research.

Notes

1. BMT is a generic name for Islamic MFIs in Indonesia, which normally formed as a cooperative. Some BMTs operate as NGO or foundation.
2. This advantage of not facing trade-off is hypothetical.

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CHAPTER 10

Determinants of Total Factor Productivity in Microfinance Institutions: Evidence from Bangladesh

Md Aslam Mia

10.1 Introduction

Vision 2021 is Bangladesh's goal to achieve 'middle-income' status by its golden jubilee in the year 2021. In line with the vision, it is important for financial sector to achieve poverty reduction and enhance socio-economic development. A number of studies have empirically examined the nexus between financial sector development and poverty alleviation and found that financial sector development indeed reduces poverty and enhances socio-economic development (Beck et al. 2007; Odhiambo 2009; Jalilian and Kirkpatrick 2005, 2002). Hence, the provision of microfinance has become a significant policy intervention in Bangladesh. Microfinance provides door-step banking support to over 30% of the poor and half of the unbanked

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population who are systematically excluded from the conventional banking system (Bangladesh Economic Review 2014). In 2014, over 33 million clients had been provided with various financial and non-financial products and services by over 700 registered microfinance institutions (MFIs) (MRA 2015). To continuously support financial services for the poor, it is important that MFIs' operations achieve sustainability (Hartarska 2005; Rauf and Mahmood 2009). Sustainability refers to the ability of MFIs to ensure continuation of their services over time (Schreiner 2000). Moreover, the comprehensive definition of sustainability in microfinance means to ensure financial needs of the present without compromising the opportunities of the future generations to meet their financial needs.

The main question, however, remains unanswered; that is, how to achieve sustainability in the microfinance sector or in MFIs? What are the components of sustainability? Due to the exceptionality of microfinance compared to that of the conventional banking system, no global 'yardstick' exists with which to evaluate or compare the sustainability of MFIs. Academicians have responded to this gap by examining multi-dimensional ways to achieve sustainability. It has been asserted that one of the most important aspects of sustainability in microfinance is to attain productivity in its operations. Singh et al. (2013), for example, argued that banks and MFIs are judged based on how well they achieve productivity or efficiency in their operations. This has resulted in a shift of research focus among the academicians from authoritative impact assessment to institutional investigation on aspects such as efficiency and productivity (Gutierrez-Nieto et al. 2007; Mia and Ben Soltane 2016). Nonetheless, it is also likely that productive MFIs can afford to provide services at lower costs than unproductive MFIs, suggesting greater social outreach (Mia and Ben Soltane 2016). Thus, evaluating the productivity of MFIs and its determinants warrants in-depth understanding of the trend of productivity to ensure sustainable access to financial services in the long run.

There are a number of studies assessing the productivity of MFIs (Bassem 2014; Gebremichael and Rani 2012; Wijesiri and Meoli 2015; Mia and Ben Soltane 2016; Mia and Chandran 2016). The majority of studies have found that, on average, MFIs have experienced progress in productivity. From an institutional point of view, progress in productivity can be perceived as a positive accomplishment of MFIs as they use scarce resources to attain their objectives. However, the existing microfinance literature only decomposed productivity scores to understand the sources of productivity growth or change. Existing studies have not extended their analysis to how other environmental factors could affect productivity.

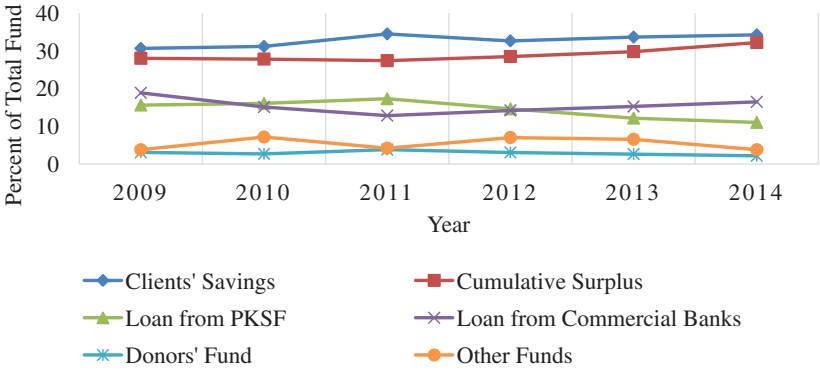

Fig. 10.1 Funding evolution of the microfinance industry (2009–2014). *Source* Author's calculation based on various MRA annual reports

Interestingly, Mia and Ben Soltane (2016) and Wijesiri and Meoli (2015) were the exceptions. These two studies investigated determinants of productivity and used a two-stage estimation technique. In the first stage, the productivity score is estimated; in the second stage, the score is regressed against the environmental variables. For example, Wijesiri and Meoli (2015) considered a few institutional factors and Mia and Ben Soltane (2016) considered both institutional and macroeconomic factors. However, to the best of the author's knowledge, none of the existing studies have taken into consideration external sources of funds as environmental factors. The inclusion of external sources of funds to understand productivity of MFIs is significant because Bangladesh's microfinance sector has observed significant changes in its capital structure in the past few years (see Fig. 10.1). For example, a donor-driven initiative has seen numerous sources of funds emerge recently, including funds from commercial banks. The emergence of commercial funds (e.g. banks) has resulted in a surprising turn in microfinance as these commercial sources were initially reluctant to provide banking financial support to the poor. Hence, this study would like to examine how various sources of external funds contribute to the productivity of MFIs, along with other institutional and macroeconomic factors. Figure 10.1 shows the funding evolution in the microfinance industry from 2009 to 2014.

This study's findings contribute in several ways to the existing literature. To better inform management and policy makers of the sector, an

analysis of the determinants of productivity can be an important policy guideline regarding efficient allocation of scarce resources. Investigating this issue has its own merits as MFIs do not operate in a similar way to that of institutions within the conventional banking system. Above all, the policy guidelines generated from this study will be of paramount interest for the relatively young Microcredit Regulatory Authority (MRA) to supervise and control operational activities of MFIs. Since this study measures productivity and its determinants, the policy implications relate to the issues of MFIs' sustainability. These issues have been unexplored and largely ignored in the microfinance literature. Nevertheless, the study findings are limited to the case of Bangladesh given its contextual specificity, whereas the research approach can be applied to other economies in studying MFIs' sustainability.

The rest of the chapter is organized as follows: Sect. 10.2 briefly discusses the methodology, selection of inputs and outputs and the modelling of the determinants of productivity; Sect. 10.3 presents the empirical results and discussions; and Sect. 10.4 concludes with policy implications and limitations of the study.

10.2 Methodology

10.2.1 Malmquist Productivity Index (MPI)

The study uses the Data Envelopment Analysis (DEA)-based Malmquist Productivity Index (MPI) to evaluate the productivity of MFIs. In general, there are two methods available in assessing productivity—DEA and the Stochastic Frontier Approach (SFA), but DEA has gained prominence in recent years (Sharma et al. 2013). Although a conventional DEA is used to measure the efficiency of MFIs (Gutierrez-Nieto et al. 2007), Bassem (2014) is the first to apply MPI, an extension of DEA, in a comprehensive manner to evaluate the productivity of MFIs in Middle East and North African (MENA) countries. The principal advantage of using MPI is the ability to observe the performance of each MFI for more than one year. This allows for tracing the changes of productivity both at the individual and industry level (Isik and Hassan 2002). There are several other advantages of using DEA to analyse the efficiency or productivity of the formal and informal financial industry. The developer of DEA, Charnes et al. (1978), assert that its application is suitable for non-governmental entities. This is important as this study uses only

NGO-MFIs for its sample. Conventional methods use a normal ratio between inputs and outputs, but DEA stands out as it can handle multiple inputs and outputs at the same time. In addition, since DEA is a nonparametric method, it does not require any prior functional form. Compared to other methods, DEA also provides flexibility with the choice of measurements of inputs and outputs. For example, the DEA is a unit invariance and has no influence on the estimated efficiency or productivity. Thus the unit of inputs and outputs can be numbers, ratios, etc.

The most unique feature of DEA is that the indices can be decomposed, which is highly significant to the management and policy makers in the microfinance industry. This feature could provide important guidelines for understanding the operational weaknesses and strengths of MFIs. Furthermore, it also helps in understanding the past performance of a decision making unit (DMU) and providing guidelines for future planning (Kao 2014). It can also be used to compare the performance of various DMUs at a single point in time or over a period of time. Finally, the assumption of conventional DEA is that it uses a simple concept of the production process—a single black box where the inputs are transformed into outputs.[1] The results are easy to understand and interpret since there are no complex assumptions or multi-stage production processes involved. As there are multiple types of benefits, a conventional DEA-based Malmquist productivity index is used in this study.

Based on the relevance and advantages of MPI over other conventional methods, this study uses the MPI proposed by Färe et al. (1994). Given that DEA is a well-established method, this study does not discuss the method in detail to conserve space. However, detailed discussions on the empirical methodology can be found in Mia and Ben Soltane (2016), Mia and Chandran (2016) and Wijesiri and Meoli (2015).

10.2.2 Selection of Inputs and Outputs to Measure MPI

Given that the nature of operations is unique to each firm or institution, one of the challenges in estimating productivity in MFIs is determining the appropriate inputs and outputs. MFIs, in most cases, have two sets of goals, namely financial sustainability and social outreach. Financial sustainability means generating enough revenue to cover total cost, while social outreach refers to the social benefits of microfinance for the poor (Schreiner 2002). Recognizing these goals, this study puts special effort into identifying inputs and outputs that can best represent the dual goals

of MFIs. The study follows the framework proposed by Yaron (1994). In addition, other similar studies have used a simple input–output approach. For example, Gutierrez-Nieto et al. (2007) used two inputs and three outputs to estimate an MFI's efficiency. MFIs produce loans for the poor by utilizing scarce physical resources such as capital and employees (Haq et al. 2010). Hence, this study considers two inputs. Operating expenses (OPTEXP) of the MFIs (Gutierrez-Nieto et al. 2007; Worthington 1998; Bassem 2014; Berger and Humphrey 1997; Gebremichael and Rani 2012), and the number of employees (EMP) (Bassem 2014; Gutierrez-Nieto et al. 2007; Tortosa-Ausina 2002; Gebremichael and Rani 2012).

As for the outputs, the study uses financial revenue, average loan balance over GNI per capita (AVLGNI) and total number of clients. Since the study considers both goals of MFIs, financial revenue represents the financial sustainability of the MFIs. The financial revenue (FINREV) is important for the long-term viability and continuous flow of credit in the sector (Bassem 2014; Gutierrez-Nieto et al. 2007; Gebremichael and Rani 2012). Hisako (2009) and Quayes (2012) used average loan balance per borrowers divided by the GNI per capita (AVLGNI) to measure the depth of outreach. The smaller the AVLGNI, the greater the depth of outreach (Louis et al. 2013). To capture the breadth of outreach, Schreiner (2002) proposed considering the total number of clients (CL). Likewise, this study uses AVLGNI and CL as the two other outputs to represent the outreach of MFIs. Hence, this study uses a mix of three outputs and two inputs of the production process, which is a common set of input–output combination in the existing literature. Moreover, due to the simplicity of microfinance operations, this study uses single production process instead of multiple stages of production.

10.2.3 Modelling Determinants of Total Factor Productivity (TFP)

Once productivity is estimated, it is of significant interest not only to academicians but also to policy makers and the management of MFIs to identify and understand what drives those productivities. Coelli et al. (2005) suggested several ways to incorporate environmental variables into the efficiency or productivity analysis. One method is to estimate productivity or efficiency in the first stage, and then regress the determinants against the estimated productivity or efficiency scores in the second stage.

In doing so, critical determinants are considered, namely the institutional characteristics, external sources of funds and the macroeconomic conditions which do not form the inputs and outputs of the MFIs. Empirically, Ahlin et al. (2011) and Mimouni and Ali (2012) showed that macroeconomic and socio-economic factors play a significant role in MFIs' performance and could affect productivity. Past studies have considered the legal status or ownership structure of an MFI (usually a dichotomous variable), the scope of operation, sources of funds and macroeconomic and socio-economic factors (such as GDP, GDP growth, inflation, literacy rate, rural population, migration) as determinants or environmental variables in the analysis of efficiency and productivity (Sufian 2011; Sufian and Habibullah 2012; Mia and Ben Soltane 2016).

By doing this two-stage analysis, the management of MFIs would gain understanding on important factors that are likely to influence productivity. This would allow them better control of their operations and enable them to enhance productivity. The two-stage analysis provides valuable information for choosing the optimal mix of input and output in the production process. Similarly, policy makers could gain an understanding on how macro- and socio-economic factors play a role in enhancing the productivity of the industry.

Considering the institutional characteristics, macroeconomic factors and sources of funds as determinants of TFP, the following equation specifies the second-stage estimation model:

$$\begin{aligned} \mathrm{TFP}_{it} = {} & \alpha_0 + \beta_1 \mathrm{LNAGE}_{it} + \beta_2 \mathrm{LN(AGE)}_{it}^2 + \beta_3 \mathrm{ROA}_{it} + \beta_4 \mathrm{LNBRANCH}_{it} \\ & + \beta_5 \mathrm{LOC}_{it} + \gamma_1 \mathrm{INF}_t + \gamma_2 \mathrm{GDPGR}_t + \gamma_3 \mathrm{WGI}_t + \gamma_4 \mathrm{INTCP}_t \\ & + \delta_1 \mathrm{PKSF}_{it} + \delta_2 \mathrm{GOVT}_{it} + \delta_3 \mathrm{DON}_{it} + \delta_4 \mathrm{MFIB}_{it} + \delta_5 \mathrm{BANK}_{it} + \varepsilon_{it} \end{aligned} \tag{10.1}$$

where subscripts i represents an MFI and t represents the respective time period or year. ε_{it} is the error term in the model. TFP is the productivity score estimated in the first stage. As a whole, Eq. 10.1 includes three sets of independent variables, namely, institutional characteristics (IC), macroeconomic factors (MF) and external sources of funds (SF). Specifically, the IC includes the age of the MFI since its establishment (AGE) to capture the effect of firm experience. Generally, the higher the AGE, the greater experience an MFI has, which is likely to affect performance of MFIs. Additionally, this study also included AGE^2 to check for a nonlinear relationship

and to examine the effect of the 'learning curve'. To capture the size effect on productivity of MFIs, number of branches (BRANCH) is also included as the usage of technology between large- and small-scale MFIs may vary. AGE and BRANCH have been transformed into natural logarithms to improve the goodness of fit of the regression model and to overcome simultaneity bias (De Bandt and Davis 2000; Staikouras et al. 2008). Moreover, the log transformation also aimed to simplify interpretation of the findings. Return on asset (ROA) is used to examine if profitability could have any effect on productivity. Lastly, another important institutional characteristic, MFI location (LOC), is also included as a dummy variable to investigate the effect of location on the productivity of MFIs.

Furthermore, this study also incorporates other macroeconomic factors and regulatory variables, such as Inflation (INF), GDP growth (GDPGR), World Governance Indicator (WGI) and interest rate cap (INTCP). These factors are included to examine the macroeconomic impact on the productivity of MFIs. Since the microfinance sector is an integral part of the economy and the financial sector, any changes in INF and GDPGR affect the operations of MFIs. For example, inflation in the economy increases the overall expenses of MFIs. The resulting high cost of input could have an effect on the productivity of MFIs. Higher GDPGR shows the overall progress of an economy and is generally expected to have a positive effect on the productivity of MFIs. Furthermore, WGI captures the institutional quality of a country and INTCP is included to examine how market intervention affects the productivity of MFIs.

This study only considers the external sources of funds that MFIs use in their capital structure. They include quasi-equity (both the characteristics of debt and equity), such as funds from *Palli Karma Sahayak Foundation* (PKSF),[2] government concessionary funds (GOVT), and donations (DON). External sources of funds also include peer borrowing from other MFIs (MFIB) and debt financing from commercial banks (BANK) due to their significant contribution to the capital structure of the microfinance industry in Bangladesh. Table 10.1 shows the definitions and measurements of the variables used in this study.

Table 10.1 Definitions and measurement of variables

Variable	*Definition*	*Unit*
Output/Input		
Financial Revenue (FINREV)	Total financial revenue income (total loan outstanding*portfolio yield)	Taka
Average Loan over GNI per capita (AVLGNI)	Average loan outstanding divided by Gross National Income (GNI) per capita	Ratio
Clients (CL)	Total number of clients	Number
Operating Expenses (OPTEXP)	Total operating expenses by an MFI, including depreciation, administrative and amortization	Taka
Employees (EMP)	Total number of employees	Number
Determinants of Productivity		
Number of Branches (BRANCH)	Size of an MFI is based on the total number of branch	Number
Return on Asset (ROA)	Total earnings divided by total asset	Ratio
Age (AGE)	Year of establishment (registration) of an MFI	Number
Location (LOC)	Dummy variable-1, if the MFI was registered in the capital city of Dhaka, 0 otherwise	0,1
Palli Karma Sahayak Foundation (PKSF)	Amount of PKSF funds divided by the total funds of an MFI*100	%
Government Funds (GOVT)	Amount of government loans and concessionary funds divided by the total funds of an MFI*100	%
Donations (DON)	Total amount of donations divided by the total funds of an MFI*100	%
Peer Borrowing (MFIB)	Total amount of borrowed capital from peer MFIs divided by the total funds of an MFI*100	%
Commercial Funds (BANK)	Total amount of borrowed capital from commercial banks divided by the total funds of an MFI*100	%
Inflation (INF)	Rate of price change in the economy as a whole	%
GDP Growth (GDPGR)	Annual Gross Domestic Product growth	%
World Governance Indicator (WGI)	Average of the six dimensions of governance, includes voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law and control of corruption	−2.5 to +2.5
Interest rate caps (INTCAP)	0 before the interest rates cap in 2011 and 1 after, dummy variable	0, 1

Source Author's compilation from MRA and World Bank

10.2.4 Data Sources

Unlike other similar studies where the MixMarket database is used extensively, this study compiles data from the Microcredit Regulatory Authority (MRA) annual reports as the latter is one of the most reliable sources of MFIs data in the context of Bangladesh. Additionally, the MixMarket database only reveals self-reported data by MFIs and the sample size is small (for example, only 28 MFIs reported their data to MixMarket in 2012). MRA was established in 2006 with the decree of the 'Microcredit Regulatory Authority Act 2006' by the Bangladesh Government, for the purpose of governing and regulating the microfinance sector. Although the MRA had been established in 2006, comprehensive yearly publications are only available from 2008 to 2014. The previous annual reports were only limited to general industry information, rather than providing data for specific individual MFIs. In addition, the reporting structure of the 2008 annual report varies significantly from that of annual reports from 2009 to 2014. Hence, the longitudinal sample includes data from a period of 6 years, from 2009 to 2014, based on similar data structure. Since the number of MFIs has not remained the same throughout the period, this study selectively included MFIs that have complete data set from the fiscal year of 2009 to 2014. This was in order to fulfil the requirements of the DEA because the traditional DEA analysis requires that all the inputs and outputs are observed in the sampling period. Based on this criterion, the final sample includes 169 MFIs. However, the sample size is also representative of the whole sector. For example, using on the 2009 figures as a base year, the sample represents 85.87% (clients), 85.79% (borrower), 86.92% (total loan outstanding) and 86.74% (total net savings) of the microfinance market in Bangladesh. Furthermore, the sample used in this study is homogenous with regard to legal status as only NGO-MFIs are included.

Age of MFIs was calculated from 2008 annual report and NGO Affair Bureau (2015), which follows the similar approach of Mia & Hwok-Aun (2017). Another important source of data, the World Bank database, was used in this study to obtain macroeconomic variables, for example, INF, GDP growth and WGI.

10.3 Empirical Findings

Table 10.2 shows the descriptive statistics of the variables used in this study, including inputs, outputs and determinants of productivity. Based on the number of clients, the sample size includes very small to large MFIs. For example, the smallest MFI has only 551 clients while the largest MFI serves well over 8 million clients. This is also corroborated by the number of branch of MFIs. Interestingly, this study observed that minimum ROA is negative, meaning that certain MFIs incurred losses in their operations. The sample size also includes both first-generational and relatively new MFIs. In terms of external sources of funds, PKSF constituted the largest source of funds, followed by commercial loans, donations, peer borrowing and government subsidies. It was observed that there are also MFIs that do not depend on external sources of funds, with percentages of zero for all the external sources of funds. This means that some of the MFIs only

Table 10.2 Descriptive statistics of the variables

Variable	*Obs.*	*Mean*	*S.D.*	*Min*	*Max*
Output/Input					
FINREV (million, BDT)	1014	208.165	1083.149	0.273	10894.790
AVLGNI	1014	0.210	0.080	0.070	0.460
CL	1014	11,9973	67,8135	551	83,57249
EMP	1014	514	2351	3	25641
OPTEXP (million, BDT)	1014	150.910	711.380	0.330	7563.940
Determinants of Productivity					
BRANCH	1014	56	229	1	2029
ROA	1012	3.226	3.956	−10.17	16.000
AGE	1014	17.00	8.000	4.000	38.000
PKSF	1011	22.610	27.620	0.000	89.540
GOVT	1011	1.550	4.710	0.000	28.360
DON	1011	2.100	7.450	0.000	43.990
MFIB	1011	1.580	4.830	0.000	28.420
BANK	1011	4.630	11.080	0.000	54.130
INF	1014	7.500	1.680	5.420	10.700
GDPGR	1014	5.950	0.530	5.000	6.500
WGI	1014	−0.850	0.040	−0.920	−0.780
INTCP	1014	0.500	0.500	0.000	1.000
LOC	1014	0.290	0.454	0.000	1.000

Source Authors *Note* Determinants of productivity (except macroeconomic factors and LOC) are winsorized at 1% and 99% level to minimize the effect of outliers. BDT: Bangladeshi Taka

depend on internally generated funds such as savings and cumulative surplus. In contrast, there are MFIs that depend heavily on external sources of funds. For example, the contribution of PKSF and BANK observed the highest values of 89.54% and 54.13%, respectively. Around 30% of the MFIs included in this sample have their head office or registration located in Dhaka, the capital city of Bangladesh. In terms of macroeconomic situation, the sample period has a moderate GDP growth with a mean value of 5.95%, while a double-digit inflation rate (10.7%) was also observed during the study period.

10.3.1 Evolution of TFP of the MFIs in Bangladesh[3]

Since our interest is in identifying the determinants of productivity, here we briefly discuss the overall productivity evolution of the industry from 2009 to 2014. Figure 10.2 shows the evolution of overall TFP of MFIs in Bangladesh during the study period. On average, the sector experienced 3.6% productivity progress per annum. However, productivity progress has gradually declined over the years. For example, the TFP change was progressing at a rate of 6.6%, 6.2%, 3.8% 1.2% between the periods of 2009–2010, 2010–2011, 2011–2012 and 2012–2013, respectively; however, the sector observed a decline in TFP at 0.2% during 2013–2014. Since there is a declining trend in

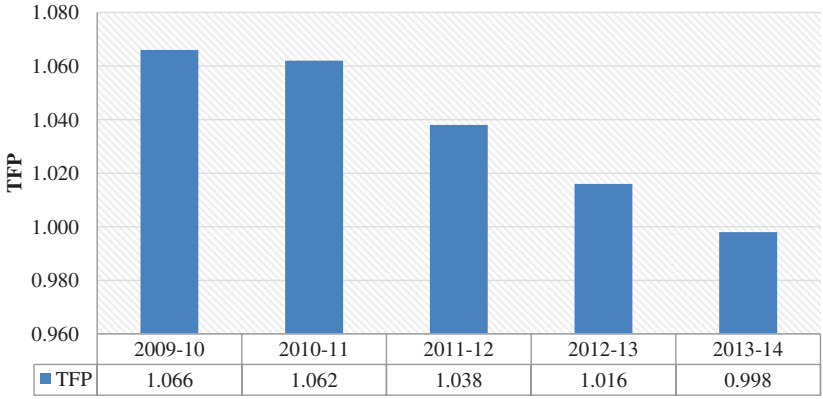

Fig. 10.2 Trend of TFP Changes in Bangladesh's MFIs (2009–2014).[4] *Source* Author's

TFP change over the years and ultimately a negative change recently, policy makers and the management of MFIs are apprehensive about the long-term sustainability of MFIs. Hence, it is important to identify the environmental factors that can enhance the productivity of MFIs.

10.3.2 Determinants of Total Factor Productivity (TFP)

Since this study deals with panel data to identify the determinants of productivity in the second-stage analysis, special attention must be paid to multicollinearity, whereby one or more independent variables may highly correlate with each other. The presence of multicollinearity may bias the overall estimation; as a result, the regression analysis may not produce robust estimates. To see how the independent variables are correlated with each other, a pairwise correlation between the determinants of TFP and variance inflation factor (VIF) is reported in Table 10.3. The result shows that the correlations between the independent variables are relatively low; the highest pairwise correlation is observed between INF and GDPGR (0.518). There are a number of studies which have found a positive relationship between inflation and GDP growth, supporting the high correlation in this study (Fakhri 2011; Xiao 2009). The lowest correlation is observed between INF and INTCP (−0.350). Moreover, the maximum correlation does not exceed the limit of 0.80 (Kennedy 2008) and threshold of VIF is acceptable (the rule of thumb for VIF value should not exceed 10) (O'brien 2007). The VIF quantifies the severity of multicollinearity in a regression analysis. The maximum and minimum VIFs are observed for GDPGR and MFIB at 4.190 and 1.060, respectively.

Before proceeding to the discussion, it is necessary to understand that Eq. 10.1 can be estimated in several ways. Based on an influential study by Banker and Natarajan (2008), the use of two-stage estimation procedures includes the DEA followed by Ordinary Least Squares (OLS) to provide consistent estimates of parameters. In line with that, McDonald (2009) provided a solid statistical foundation that usage of DEA and OLS is a consistent estimator if White (1980)'S heteroscedastic consistent standard errors are calculated. Following that, Sufian (2011) analysed the effect of ownership structure and origin in the productivity

Table 10.3 Pairwise correlation between determinants of productivity

	LNBRANCH	*LNAGE*	*ROA*	*LOC*	*INF*	*GDPGR*	*INTCP*	*WGI*	*PKSF*	*GOVT*	*DON*	*MFIB*	*BANK*	*VIF*
LNBRANCH	1.000													1.480
LNAGE	0.408***	1.000												1.390
ROA	0.079**	0.028	1.000											1.100
LOC	−0.090***	−0.162***	0.017	1.000										1.040
INF	0.003	0.018	0.011	0.000	1.000									3.730
GDPGR	0.019	0.164**	0.060**	0.000	0.518***	1.000								4.190
INTCP	0.024***	0.220***	0.063**	0.000	−0.350***	0.476***	1.000							3.730
WGI	0.001	0.008	0.036	−0.002	0.116***	−0.077**	−0.219***	1.000						1.070
PKSF	0.269***	0.267***	−0.154***	−0.075**	−0.002	−0.046	−0.064**	0.003	1.000					1.560
GOVT	−0.164***	−0.046	−0.094***	−0.061*	0.013	0.025	0.018	−0.012	−0.205***	1.000				1.090
DON	0.147***	0.021	0.072	−0.050	−0.005	−0.036	−0.051	0.008	−0.177***	−0.007	1.000			1.130
MFIB	−0.095***	−0.029	0.075**	−0.045	−0.012	−0.072**	−0.067**	0.007	−0.148***	−0.034	−0.018	1.000		1.060
BANK	0.197***	0.008	−0.086***	0.018	−0.003	0.103***	0.147***	0.022	−0.224***	0.041	−0.071**	−0.052*	1.00	1.250

Source Author's $^{*}p<0.10$, $^{**}p<0.05$, $^{***}p<0.01$

of Malaysian banking sector. Hence, this study followed the approach of Sufian (2011) to identify the effect of environmental variables on productivity of the MFIs. While OLS with heteroscedastic consistent standard errors is the main reference of the discussion, as a robustness check, this study also employed fixed effect (Sufian 2011) and truncated regression techniques (Simar and Wilson 2007). The results are reported in Appendix A. The overall significance of the model's measured by the *F*-statistics in OLS show that the models are statistically significant at 1% level, indicating overall good-fit (Table 10.4).

With regard to institutional characteristics, this study found ROA to be positively related to TFP at the 1% significance level, and the coefficient remains the same in both models. This indicates that MFIs with greater profitability are thus associated with higher TFP growth. This is imperative as ROA positively correlates with financial self-sufficiency and operational self-sufficiency, which in turn enhances productivity (Cull et al. 2007). Moreover, this finding also implies that productivity could be enhanced by the ability of an MFI to use their assets efficiently. Furthermore, positive ROA also helps MFIs to develop and support innovation activities, which ultimately contributes towards overall progress in productivity. In contrast, the negative effects of ROA have also been observed recently in the study conducted by Wijesiri and Meoli (2015) on the Kenyan microfinance industry. In addition, studies on the banking sector have found insignificant effects of ROA on banks' efficiency in the Malaysian and Indonesian banking sector (Sufian 2011; Sufian and Habibullah 2012). The findings also showed that the size of an MFI (LNBRANCH) has a negative effect on productivity, as the coefficient sign remain negative across the models. Apart from ROA and LNBRANCH, other institutional variables are not statistically significant to explain variations in TFP in this study.

The results highlighted the impact of macroeconomic conditions on the productivity of the microfinance sector in Bangladesh. This study found that GDP growth, INTCP and WGI have statistically significant effect to the variations in TFP. This is expected as microfinance is an integral part of an economy; hence, changes in the macroeconomic setting are also reflected in the performance of MFIs, whether in a positive or negative way. GDP growth shows a positive association with TFP that supports the arguments of economic growth. Several conclusions can be drawn from this finding. Generally, economic growth indicates a country's overall progress. As such, business expansion would take place, particularly in the small-scale enterprises supported by MFIs. This increases

Table 10.4 Determinants of Total Factor Productivity (TFP).

Dependent Variable: TFP		
	OLS	*OLS*
Institutional Characteristics		
LNAGE	0.0055	0.0056
	(0.0103)	(0.0103)
$LNAGE^2$		0.0001
		(0.0022)
ROA	0.0078***	0.0078***
	(0.0012)	(0.0012)
LNBRANCH	-0.0070*	-0.0071*
	(0.0037)	(0.0037)
LOC	-0.0160	-0.0160
	(0.0106)	(0.0106)
Macroeconomic Factors and Regulatory Variables		
INF	0.0017	0.0017
	(0.0061)	(0.0061)
GDPGR	0.0369*	0.0369*
	(0.0213)	(0.0214)
WGI	-0.2335**	-0.2335**
	(0.1147)	(0.1147)
INTCP	-0.0460**	-0.0460**
	(0.0196)	(0.0196)
External Sources of Funds		
PKSF	0.0006***	0.0006***
	(0.0002)	(0.0002)
GOVT	0.0011	0.0011
	(0.0011)	(0.0011)
DON	0.0001	0.0001
	(0.0008)	(0.0008)
MFIB	<-0.0001	<-0.0001
	(0.0013)	(0.0013)
BANK	0.0013**	0.0013**
	(0.0005)	(0.0005)
Constant	0.5924***	0.5921***
	(0.1195)	(0.1205)
N	1009	1009
r2	0.0667	0.0667
F	6.5291	6.0568

Source Author's. Robust standard errors in parentheses.* $p<0.10$, ** $p<0.05$, *** $p<0.01$
Note: AGE variable is demeaned when estimating $LNAGE^2$. Dependent variable also winsorized at 1% and 99%

the demand for financial services and provides an impetus for MFIs to expand their operations and benefits from scale economies. Moreover, Imai et al. (2011) also found a positive association between GDP and the financial performance of MFIs in a cross-country examination. The result indicates that when the overall economic performance (in terms of GDP growth) of a country improves, the income of the working population also improves. Thus, borrowers are able to maintain the repayment of loans and become financially disciplined in a way which directly stimulates the productivity of MFIs.

Another important regulatory variable, INTCP was found to be inversely related to TFP of MFIs. This has raised apprehension and questions about interventions in the microfinance market by the MRA. It is likely that when there is a market intervention, particularly in terms of interest rate ceiling, it creates additional pressure on the management of MFIs. Market interventions could cause two possible effects that deteriorate the TFP of MFIs. First, due to the INTCP, high-cost MFIs would not be able to generate enough revenue to cover their total cost, given that the cost remains constant while revenue falls. This is an important consideration for newly established MFIs as firms usually incur high costs at the beginning of their operations. Moreover, with respect to other industries, an interest rate ceiling in the environment of overall rising interest rates is not sustainable in the long run; it provides extra financial burden for the high-cost MFIs, which is detrimental to the productivity (CGAP 2004).

Second, as a result of interest rate caps, some MFIs may reallocate and restructure their client base. One of the major drawbacks of interest rate caps is that they substantially reduce the outreach of MFIs. MFIs become less interested in funding small loans due to the high cost of operations and monitoring expenses, consequently bypassing the poorest of the poor. Additionally, MFIs would find it more cost-effective to approve larger loans that reduce operating costs and offset the reduction in revenue, which results in a balance between cost and revenue. Thus, the lower end of the poor, who require small loans, would find it difficult to secure finances for their small-scale enterprises. This chain reaction supports the claim that interest rate ceilings always hurt the poor and distort the overall market (CGAP 2004; Mohane et al. 2000). Hence, INTCP has a negative impact on TFP. This study also observed that WGI—an indicator used to gauge the governance of a country—has negative effects on TFP. Although a positive effect is generally expected, mixed

results of four WGI indicators were observed in Assefa et al. (2013) in terms of their effects on social outreach and loan repayment performance of MFIs. Based on the descriptive statistics of WGI, Bangladesh stands in the lower end category of WGI since all six indicators of WGI had negative values during the study period.

The sources of funds have shown interesting results. This study included five external sources of funds, but only PKSF and BANK were found to be statistically significant and positively related with TFP. PKSF, a government apex body in Bangladesh which aims to finance the activities of its partner MFIs, significantly contributed to enhancing productivity of the industry. The funding policy of PKSF is a quasi-equity type that ensures optimal allocations of funds to MFIs. Apart from providing funding to MFIs on a continuous basis, PKSF has several distinguishable activities that are hardly seen in other sources of funds. For example, PKSF provides capacity building through institutional development and training. In terms of institutional development, PKSF provides comprehensive planning supports to its partner MFIs. To ensure the sustainability of MFIs' clients, PKSF has set rules that need to be followed by partner MFIs. Among them, MFIs must ensure that their outreach provides services to the poorest of the poor. Furthermore, partner MFIs are also required to monitor closely the activities of their clients, in order to safeguard the interest of the poor. Nonetheless, PKSF also provides guidance for partner MFIs to attain financial sustainability, operational efficiency, high portfolio loan quality, and long-term sustainability.

Another important aspect of PKSF is its provision of hands-on training facilities to the staff of MFIs. For example, PKSF has a total of 12 training facilities aimed at various types of employees, from beginner to mid- and upper-level (PKSF 2016). Financial product design and diversification, as well as strategic training are provided for senior- or mid-level officers, and special training is available to loan officers or field-level staff to enhance interpersonal skills and ability to interact with clients. Increased interaction with the clients helps the staff to understand the needs of their target client group. In a nutshell, PKSF funding helps to enhance the productivity of MFIs due to its financing strategy, follow-up methods and institutional support, which is rarely seen in other sources of funds.

It is quite likely that commercial banks selectively provide funding to MFIs that have shown a good record of operational self-sustainability and other financial indicators in the past. For example, Biekpe and Kiweu (2009) identified several criteria used by commercial lenders in

funding microfinance activities, such as transparency in financial reporting, sound financial management and historical records of borrowing. In a similar vein, Tchuigoua (2015) also found that tangible assets, the size of the MFIs and profit distribution significantly attract external debt. Moreover, in order to secure financing from a bank, MFIs are required to demonstrate high standards in accounting, auditing, operational procedures as well as regulations disclosure. Hence, commercial funding is also believed to have a positive effect on the productivity of MFIs. A similar effect has been observed in the Indonesian banking sector by Sufian and Habibullah (2012). The debt source of funds, BANK, shows a positive effect on TFP in their study. These findings also partially support the view of Jensen and Meckling (1976) on 'agency cost', which argues that higher leverage is associated with improved efficiency.

Two relevant explanations can be generated from the effects of commercial funds on TFP. First, commercial banks may have transferred relevant technological or operational strategies to ensure financial benefits to the MFIs that they have funded. Kyereboah-Coleman (2007) found that highly leveraged MFIs expand their clientele, enjoy scale economies and abate moral hazard and adverse selection—all of which systematically enhance an MFI's ability to deal with various risks. Due to these positive effects, it is estimated that inclusion of commercial funds enhances the productivity of MFIs. However, the findings of this study does not seem to corroborate the findings of Hoque et al. (2011), where they claimed that increasing commercial debt is counter-productive for an MFI.

Second, MFIs would try their best to maintain positive relationships with banks so as to uphold their reputation. Failing to settle debt would not only erode their reputation in the industry, it would also jeopardize future financing opportunities from commercial sources. Hence, showing a good performance by not only paying debts but also having productive operations could ensure long-term positive relationships with commercial funders. As such, this study provides evidence of a positive effect on TFP when funding from the commercial banks increases in the capital structure of an MFI.

10.4 Conclusion

This chapter addressed an important dimension of microfinance by estimating productivity and its determinants based on a two-stage semiparametric approach: a combination of nonparametric (DEA) and parametric (OLS). The sample size comprises 169 MFIs with longitudinal data

ranging from 2009 to 2014. Based on the findings, the sector aggregately observed 3.6% productivity progress per annum, which is a modest progress in Bangladesh's microfinance industry. However, TFP changes observed a declining trend over the years, which is certainly worrisome for the managers and policy makers who determine policy response.

While investigating the determinants of productivity, this study observed several interesting findings. Inter alia, ROA is positively associated with TFP. This implies that better ROA can enhance MFIs' productivity. Thus, MFIs should target and explore various financially viable projects that would ensure a moderate return. Size variable showed negative effects on productivity, which indicates inefficiency of the larger MFIs to convert input into output. On the other hand, macroeconomic factors exhibited interesting findings as most of the included variables significantly affected TFP. In particular, GDP growth has a positive effect on TFP, implying the importance of a good economic environment to enhance productivity of MFIs. The interest rate cap significantly deteriorates productivity of MFIs. Thus, it is necessary to revisit the ongoing policy intervention of MRA in terms of interest rates cap. Another institutional variable of a country, WGI, observed a negative effect on TFP—this negative outcome requires further attention from the academics. In terms of external sources of funds, PKSF and debt from BANK showed positive effects on TFP. Hence, the government apex body, PKSF should extend their support to the MFIs that observed productivity regress in order to enhance their productivity. Financing from commercial banks could also enhance the TFP of MFIs. Overall, the findings of this study lend strong policy support to the sector particularly for the managers of the institutions to be informed on how to enhance productivity of MFIs apart from using traditional inputs.

However, future research should be carried out on how the presence of commercial funds in the microfinance capital structure enhances technical efficiency and technological change. Moreover, in-depth case studies should be carried out to identify other cognitive factors that may affect the productivity of MFIs. Qualitative research targeted at management decision making and strategy formulation by leading MFIs may also provide insightful understanding about the productivity dynamics in Bangladesh's MFIs. Finally, future studies may endeavour to explore multiple stages of the production process rather than a single stage with various industry-level variables.

Notes

1. There are more recent forms of DEA that have been developed to use multiple stages of the production process. For more details on the review of network-based DEA, see Kao (2014).
2. *Palli Karma-Sahayak Foundation* (PKSF)-is an apex development organization established by the government of Bangladesh in 1990. They focus on financing partner MFIs by mobilizing funds from various sources including government agencies and private funds.
3. An earlier study on the productivity analysis of MFIs in Bangladesh ranges from 2007 to 2012 using the data of 162 MFIs combining three outputs and two inputs was conducted by Mia and Chandran (2016). The results may vary slightly due to different choice of outputs, time periods and number of sample size. In this paper, we have updated the data until 2014 and included more and new MFIs where data is available. For more detail, please refer to Mia and Chandran (2016).
4. If TFP value greater than one, then there is a progress, if less than 1 means decline in TFP. When TFP is 1, means productivity is stagnated.

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Appendix A: Determinants of Total Factor Productivity (TFP)

	Fixed Effect Model	Fixed Effect Model	Truncated Regression	Truncated Regression
Institutional Characteristics				
LNAGE	0.0287	0.0044	0.0055	0.0056
	(0.0163)	(0.0131)	(0.0103)	(0.0103)
$LNAGE^2$		−0.0041*		0.0001
		(0.0016)		(0.0021)
ROA	0.0113***	0.0114***	0.0078***	0.0078***
	(0.0018)	(0.0017)	(0.0012)	(0.0012)

(continued)

	Fixed Effect Model	Fixed Effect Model	Truncated Regression	Truncated Regression
LNBRANCH	−0.1007**	−0.1023**	−0.0070*	−0.0071*
	(0.0314)	(0.0305)	(0.0036)	(0.0037)
LOC	[a]	[a]	−0.0160	−0.0160
			(0.0105)	(0.0105)
Macroeconomic Factors and Regulatory Variables				
INF	0.0033	0.0044	0.0017	0.0017
	(0.0050)	(0.0050)	(0.0060)	(0.0060)
GDPGR	0.0346**	0.0322*	0.0369*	0.0369*
	(0.0131)	(0.0129)	(0.0210)	(0.0211)
WGI	−0.2301***	−0.2165***	−0.2335**	−0.2335**
	(0.0248)	(0.0277)	(0.1176)	(0.1176)
INTCP	-0.0367**	−0.0290**	−0.0460**	−0.0460**
	(0.0113)	(0.0099)	(0.0198)	(0.0198)
External Sources of Funds				
PKSF	0.0018**	0.0018**	0.0006***	0.0006***
	(0.0005)	(0.0005)	(0.0002)	(0.0002)
GOVT	−0.0007	−0.0008	0.0011	0.0011
	(0.0017)	(0.0016)	(0.0011)	(0.0011)
DON	0.0026	0.0028	0.0001	0.0001
	(0.0028)	(0.0028)	(0.0009)	(0.0009)
MFIB	0.0003	0.0004	<-0.0001	<−0.0001
	(0.0024)	(0.0024)	(0.0012)	(0.0013)
BANK	0.0015**	0.0015**	0.0013**	0.0013**
	(0.0005)	(0.0005)	(0.0006)	(0.0006)
Constant	0.6951***	0.7900***	0.5924***	0.5921***
	(0.1028)	(0.0875)	(0.1213)	(0.1224)
N	1009	1009	1009	1009
R^2	0.0975	0.0824		
F	107***	28***		
Wald Chi^2			90.40***	90.46***
# of Replications			2000	2000

Source Author's. Standard errors in parentheses $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$

Note [a]Fixed effect model does not take into the account of time-invariant factors. Note: AGE is demeaned when estimating LNAGE^2. Dependent variable also winsorized at 1% and 99%

The fixed effect model is estimated based on the approach of Hoechle (2007)

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