

8-19-2013

Encouraging Entrepreneurship: Microfinance, Knowledge Support, and the Costs of Operating in Institutional Voids

Subrata Chakrabarty

University of Nebraska–Lincoln

A. Erin Bass

University of Nebraska at Omaha, aebass@unomaha.edu

Follow this and additional works at: <https://digitalcommons.unomaha.edu/mrktngmngmntfacpub>

Recommended Citation

Chakrabarty, Subrata and Bass, A. Erin, "Encouraging Entrepreneurship: Microfinance, Knowledge Support, and the Costs of Operating in Institutional Voids" (2013). *Marketing and Management Faculty Publications*. 23.
<https://digitalcommons.unomaha.edu/mrktngmngmntfacpub/23>

This Article is brought to you for free and open access by the Department of Marketing and Management at DigitalCommons@UNO. It has been accepted for inclusion in Marketing and Management Faculty Publications by an authorized administrator of DigitalCommons@UNO. For more information, please contact unodigitalcommons@unomaha.edu.

Footer Logo

Encouraging entrepreneurship: Microfinance, knowledge support, and the costs of operating in institutional voids

Abstract

This study focuses on the supplemented strategies of microfinance institutions (MFIs), in which the MFI offers nonfinancial services, such as entrepreneurship related knowledge, in addition to financial services to impoverished borrowers at the bottom of the pyramid (BoP). We examine two contextual factors— foreign direct investment (FDI) and loan defaults— to better understand the relationship between providing knowledge support to encourage entrepreneurship and costs of operating at the BoP for MFIs. In contexts where FDI is low and loan defaults are high, providing knowledge support to encourage entrepreneurship aggravates the MFI's costs of operating at the BoP. However, in contexts where FDI is high and loan defaults are low, providing knowledge support to encourage entrepreneurship among impoverished borrowers does not aggravate the MFI's costs of operating at the BoP. Hence, in emerging markets where governments welcome FDI and curb loan defaults, MFIs can viably support entrepreneurship among the poor.

Keywords: Emerging markets, entrepreneurship, foreign direct investment, institutional voids, knowledge, microfinance

Draft only. For final version see: Chakrabarty, S., & Bass, A. E. (2013). Encouraging entrepreneurship: Microfinance, knowledge support, and the costs of operating in institutional voids. *Thunderbird International Business Review*, 55(5), 545-562.

Encouraging entrepreneurship: Microfinance, knowledge support, and the costs of operating in institutional voids

INTRODUCTION

Emerging markets are home to roughly 84% of the world's population (UNDP, 2007; World Bank, 2011). Although emerging markets are a source of future investment, growth, and entrepreneurial potential (Alon & McIntyre, 2004; Welsh & Alon, 2001), much of this potential is at the bottom of the pyramid (BoP) — the poorest tier of the world's economic pyramid. The BoP comprises of more than four billion people, or around 65% of the world's population, who earn less than \$3,000 each per year (Hammond, Kramer, Katz, Tran, & Walker, 2007, p. 3; Prahalad & Hammond, 2002, p. 51). Further, the individuals living in, and the businesses operating at, the BoP often suffer due to the presence of institutional voids. Institutional voids exists in contexts where “institutional arrangement[s] that support markets are either absent or weak,” (Mair & Marti, 2009, p. 41), which may arise from “the absence of specialized intermediaries, regulatory systems, and contract-enforcing mechanisms,” (Khanna, Palepu, & Sinha, 2005, p. 63). Despite the bleak scenario, the relatively untapped population of four billion people at the BoP represents a consumer base with a purchasing power of more than \$5 trillion dollars per year (Hammond, et al., 2007, p. 3; World Bank, 2011). Hence, despite the challenges, there is considerable entrepreneurial opportunity for the aspiring poor at the BoP (Hart, 2005; Hart & Christensen, 2002; Kiyamaz, Alon, & Theodore Veit, 2009; Prahalad & Hart, 2002).

Entrepreneurship in emerging markets is unique because BoP entrepreneurs generally create microenterprises of “few employees, few assets, and informal operations,” (Gudz, 1999, p. 1). Yet, institutional voids preclude many BoP entrepreneurs from access to (i) financial resources and (ii) knowledge resources, which are needed to create and grow microenterprises.

That is, BoP entrepreneurs lack access to financial markets (Mair, Martí, & Ventresca, 2012), but also may lack any formal education or training (Afrin, Islam, & Ahmed, 2010). In response to the first institutional void (lack of access to financial resources), the microfinance industry has surfaced as a potential response. Microfinance is defined as the business of providing “loans, savings, and other basic financial services to the poor,” where the dollar amounts tend to be small (micro) in size (CGAP, 2011). Impoverished borrowers may use the microfinance loans either for meeting their consumption needs or for building microenterprises (Bartik, 2009; Karlan & Valdivia, 2011). Hence, microfinance institutions (MFIs) help fill the institutional void of lack of access to finance faced by impoverished people at the BoP (Efird, 2008).

Though the microfinance movement stemmed from the aspiring poor’s lack of access to financial markets, MFIs are increasingly offering supplementary nonfinancial support services to borrowers. One such service imparts supplementary knowledge support, often with the purpose of providing support to borrowers to become effective entrepreneurs. This support helps fill the second institutional void — of lack of access to knowledge resources among impoverished individuals at the BoP. Accordingly, at least two strategies of microfinance are possible: (i) a basic strategy: provide only standard financial services to borrowers, or (ii) a supplemented strategy: support entrepreneurship among borrowers by providing knowledge resources in addition to providing standard financial services. Given these two strategies, a question arises: Is the supplemented strategy worthwhile for MFIs? That is, is it appropriate for MFIs (that, by definition, provide financial resources) to go the extra mile and provide knowledge resources to encourage entrepreneurship at the BoP?

Recent research on the outcomes for MFIs of going beyond their basic mission of providing financial resources and supporting BoP entrepreneurship by offering knowledge

resources, is often focused on the outcomes for the BoP entrepreneur, and shows mixed results. For example, research on the socio-economic impacts of microfinance suggests that borrowers with more education and experience related to business are better able to manage the loans borrowed and the microenterprises created (Hietalahti & Linden, 2006). Further, research suggests that microfinance programs that also provide knowledge services to borrowers motivate the borrower to be entrepreneurial (Afrin, et al., 2010). However, in a quasi-experimental study of group-lending in Peru, researchers have found that providing impoverished borrowers with entrepreneurial and business training in addition to financial support had limited effects on the entrepreneurial success of the borrower (Karlan & Valdivia, 2011). From our perspective, however, lacking from the literature is an understanding of the effect of providing knowledge support on the outcomes of the MFI. That is, MFIs can offer supplementary knowledge support services, but at what cost? Understanding the relationship between providing knowledge support to encourage entrepreneurship and costs of operating at the BoP is an unexplored area of research. Further, given that these MFIs operate in emerging markets, we suggest that contextual factors may play a role in explaining the viability for MFIs of providing knowledge support to encourage entrepreneurship.

In this study, we define *MFI's knowledge support to encourage entrepreneurship* as the extent to which an MFI offers various knowledge resources in order to encourage entrepreneurship among its BoP borrowers. We define *MFI's costs of operating at the BoP* as the MFI's aggregate operational costs that include the personnel, administrative, travel, and other costs involved in monitoring the ability of its impoverished borrowers to repay the loan (Agarwal, 2006; Hirschland, 2003; Shankar, 2007). We argue that the outcome of an MFI's knowledge support to encourage entrepreneurship might be an increase in the MFI's costs of

operating at the BoP. This is because entrepreneurial ventures by impoverished borrowers, like most forms of entrepreneurship, are risky propositions where failure is a realistic outcome. Failure in the entrepreneurial venture could jeopardize the borrower's loan repayment. Failure might also damage the credibility and reputation of the knowledge support provided by the MFI. Thus, in providing knowledge support to encourage entrepreneurship, MFIs may incur additional costs associated with operating at the BoP.

More importantly, we argue that contextual factors might play a role in the viability of MFIs offering knowledge support. Given that MFIs operate in emerging markets, understanding the importance of context is necessary to gain better understanding of the relationship between MFIs' knowledge support to encourage entrepreneurship and the MFI's costs of operating at the BoP. We consider (i) foreign direct investment (FDI) and (ii) loan defaults as the contextual factors that moderate this association. We define *FDI* as the extent to which the country where the MFI operates attracts outside investment (OECD, 2008). We define *loan defaults* as borrowers' reluctance or inability to pay off loans procured from MFIs, reflected in write-offs of the uncollectable loans by the MFIs. We argue that in unfavorable contexts (where FDI is low and loan defaults are high), it might be burdensome, and thus costly, for MFIs to provide knowledge support to encourage entrepreneurship. In contrast, when FDI is high and loan defaults are low, the knowledge and financial services provided to BoP entrepreneurs can potentially better facilitate the creation and growth of successful microenterprises without aggravating the MFIs' operating costs.

In sum, our paper highlights that MFIs can attempt to support BoP entrepreneurship, but will also face tremendous challenges in emerging markets. We describe why we believe contextual factors may be important for the future success of MFIs, and resultantly, BoP

entrepreneurs, and how they are relevant to the development of entrepreneurship in emerging markets. The coming sections provide the theoretical arguments, research methodology, and empirical results. The final section discusses the implications of the findings in relation to the broader literature and practice. We highlight the need for governments to create a favorable environment for MFIs — a modern socio-economic environment that is (i) welcoming of and conducive for FDI and (ii) discourages loan defaults.

THEORY DEVELOPMENT AND HYPOTHESES

Though microfinance is often viewed as a promising mechanism to help alleviate poverty and incite entrepreneurial activity at the BoP (Salimath, 2010), the industry is plagued with high operational costs associated with providing support to BoP borrowers in inchoate emerging markets (Morduch, 2000; Shankar, 2007). MFIs' costs of operating at the BoP include all costs associated with providing support to BoP borrowers; from costs to secure funds for lending to costs associated with collecting repayments (MicroCapital, 2006; Shankar, 2007). Though they face high costs, MFIs can help alleviate poverty and improve economic and social welfare, particularly in emerging markets that are institutionally weak (Goldberg, 2005; Morduch & Haley, 2002; Odell, 2010; Schreiner, 2002).

Supporting Entrepreneurship in Emerging Markets: Background on MFIs

Microfinance institutions, by definition, offer financial services. However, as highlighted above, the services offered by MFIs can range from loans to other basic financial services including insurance and savings (CGAP, 2011; MIX Market, 2010), as well as non-financial services such as knowledge, health, and education services (Goldberg, 2005; Odell, 2010; Reed,

2011; Robinson, 2001). In addition to the variation in services provided, MFIs may also differ in form of ownership.

The ownership of MFIs is an important facet of microfinance research (Mersland & Strom, 2008; Mersland & Strom, 2009). Ownership, often reflected in the legal status of the MFI (Mersland & Strom, 2009), can influence whether the MFI is a for-profit or non-profit entity, whether it loans to individuals, groups, or both, whether it operates as a regulated entity, and its focus on financial or social performance (Tchakoute-Tchuigoua, 2010). We highlight differences among MFI ownership in Table 1. Though ownership type has not empirically supported differences in costs incurred by MFIs (Mersland & Strom, 2009; Tchakoute-Tchuigoua, 2010), the choice to provide additional services, such as supplementary knowledge support to encourage entrepreneurship, may increase costs for MFIs.

Insert Table 1 about here

The MFI's choice to offer supplementary knowledge support to encourage entrepreneurship among BoP borrowers has received recent attention (Afrin, et al., 2010; Goldmark, 2006; Karlan & Valdivia, 2011; Morduch, 2000). Additionally, the cost of operating at the BoP has become a focal point within this field of inquiry (Agarwal, 2006; Hirschland, 2003; Shankar, 2007). This includes the cost associated with post-lending monitoring, such as traveling to and taking time to visit with impoverished borrowers to monitor their loan usage and repayment capacity (Agarwal, 2006; Akula, 2008). MFIs that provide knowledge support to encourage entrepreneurship may be the catalyst for economic development in emerging markets

(Carland & Carland, 2004); however, in doing so, these MFIs may incur additional costs associated with operating at the BoP.

As noted earlier, MFIs can adopt two strategies: one in which the MFI follows its basic mission of solely providing financial services, and the other in which MFIs provide supplementary knowledge services in addition to financial services to its borrowers. The former 'basic' MFI strategy is specifically focused on the past and present financial status of the borrower. That is, the purpose of the transaction between the MFI and borrowers is to provide borrowers, who are determined credit-worthy, with loans. These loans might be used to start microenterprises. However, less than half of microfinance loans are used for such purposes. Thus, these loans are more likely to be used to stabilize consumption, pay education fees and medical expenses, or used for life events including weddings and funerals (Bartik, 2009; CGAP, 2011; Karlan & Zinman, 2012). As a result, the only expectation of the transaction between the MFI and the borrower is that the loan can be repaid and costs incurred from monitoring the repayment of this loan will be moderate. These MFIs are not concerned with how the financial services provided are used, but rather that the loans provided to BoP borrowers are recoverable. The focus of these MFIs is largely on verifying pre-lending credit-worthiness (e.g., to check whether the borrower's current occupation assures a stable/non-volatile source of income) and negotiating a stable post-lending repayment schedule.

The latter 'supplemented' strategy, which encourages entrepreneurship by additionally providing knowledge resources to borrowers, focuses not just on the past and present financial status of the borrower but also on the borrower's future entrepreneurial plans. MFIs that choose to provide impoverished borrowers with knowledge services in addition to financial services do so to equip these borrowers with the tools necessary to take the risks needed to create and grow

microenterprises. Both knowledge and education are antecedents to entrepreneurial venture creation and success (Davidsson & Honig, 2003; Robinson & Sexton, 1994). Thus, this MFI strategy creates an expectation that the borrower will utilize both the knowledge and financial services provided to take on the risk of building or supporting an entrepreneurial venture. As a result and motivated by the knowledge support from the MFI that encourages entrepreneurship, the impoverished borrower may attempt entrepreneurship. However, there is always a hazard that an impoverished borrower, like borrowers in more developed markets, might be ultimately manifested as an “incompetent fool” rather than a “dynamic entrepreneur” (Lynch-Fannon, 2009, p. 67).

Even if the impoverished borrower were to be inherently competent, the fact remains that attempting entrepreneurship is always a risky proposition where failure is a part of the game. Thus, from the perspective of the MFI and in comparison to the former strategy, adoption of this strategy might aggravate the MFI's costs of operating at the BoP. To ensure that the loan is repayable, the MFI must continually monitor the borrower's ability to utilize the loan effectively for entrepreneurship. The MFI has to monitor the borrower in order to protect itself from the potential incompetence of the borrower in entrepreneurial activities that could jeopardize the borrower's loan repayment.

Contextual Factors that Influence the Relationship between the MFI's Knowledge Support to Encourage Entrepreneurship and the Costs of Operating at the BoP

Contextual factors are increasingly important in understanding the complexities surrounding entrepreneurship in emerging markets (Bruton, Ahlstrom, & Obloj, 2008; Manolova, Eunny, & Gyoshev, 2008; Petricević & Danis, 2007; Tan, 2002; Zdravkovic & Amine, 2007). We examine contagion effects arising from contextual factors that may moderate

the influence of an MFIs' knowledge support to encourage entrepreneurship on the MFI's costs of operating at the BoP. For instance, FDI has been shown to play an important role in the economic development and national welfare of the recipient country (Hu & Jefferson, 2002; Meyer, 2004; Tvaronavičiene & Grybaite, 2007; Zhou, Li, & Tse, 2002), particularly in contexts with weak institutional markets (Stoeber, 2005). Countries that are able to attract FDI can increase local productivity and quality of jobs, increase per-capita income, and improve working conditions; all of which are indicative of a positive climate for investment and business. Alternatively, contexts that are unsupportive of FDI may produce more difficulties for both MFIs and BoP entrepreneurs to survive. However, the presence of FDI in emerging markets does not always create ideal business climates. FDI in emerging markets can create complexities for contracts (Cooke, 1997), local business owners (Guruswamy, Sharma, Mohanty, & Korah, 2006), and capital flight (Almounsor, 2007; Kant, 1996). We expand on these issues raised by the presence of FDI in emerging markets in Table 2.

Insert Table 2 about here

Microfinance can be influential in equipping BoP entrepreneurs with the financial and knowledge resources needed to create and grow successful microenterprises in weak institutional arrangements. Thus, contexts that are politically and socially supportive of microfinance can aid in MFIs' ability to reach the aspiring poor. For example, microfinance produces many socio-economic benefits across contexts, such as creating social value through poverty alleviation, increased education, and improved health initiatives (Goldberg, 2005; Odell, 2010; Reed, 2011; Robinson, 2001), and economic value through development of both hard and soft infrastructure

as well as incitement of other entrepreneurial activity (Afrin, et al., 2010; Woller & Parsons, 2002). However, contexts that are politically and socially unsupportive of microfinance have spurred controversies in emerging markets stimulating political and social backlash against microfinance as indicated in Table 3.

Insert Table 3 about here

Thus, contextual factors can be important in examining MFIs' knowledge support to encourage entrepreneurship and the costs associated with operating at the BoP. As such, we examine two contextual factors, FDI and loan defaults, as influencing this relationship.

Contextual Contingency: Foreign Direct Investment

Table 2 and Table 3 highlighted the misgivings that FDI might generate in the recipient emerging markets. We, however, believe that such misgivings are unfortunate. FDI can be tremendously beneficial, with the benefits documented and highlighted consistently in the international business literature. The presence of foreign direct investment (FDI) is influential in the social and economic development of emerging markets, especially as related to entrepreneurship (Acs & Szerb, 2007; Alfaro, Chanda, Kalimbli-Ozcan, & Sayek, 2003; De Backer & Sleuwaegen, 2003; Yiu, ChungMing, & Bruton, 2007). In emerging markets with higher FDI inflow, there are positive contagion effects that result in the dispersion of widespread benefits. Though micro-entrepreneurs, or entrepreneurs that create and grow microenterprises, may not be the direct recipients of such FDI, the presence of FDI within an emerging market can strengthen financial markets (Goldberg, 2004; Kuroda & Kawai, 2002), and assist social and economic development (Balasubramanyam, Salisu, & Sapsford, 1999; Borensztein, De Gregorio,

& Lee, 1998; Ozawa, 1992). As a result, a contagion effect of FDI inflow exists such that FDI strengthens the business climate of the emerging market to create knowledge spillovers (Fabry & Zeghni, 2003), makes the market more competitive, assists the development of new institutions, and alters markets and systems to be more efficient and effective (Almor, 2011; Gallagher, 2005; Grachev, Rogovsky, & Bobina, 2006). While FDI can result in greater formal/contractual business opportunities in the host country, there are also positive spillovers that arise from “non-market transactions when resources, notably knowledge, are spread without a contractual relationship,” (Meyer, 2004, p. 260). Thus, in emerging markets in which FDI is present, MFIs may find it easier to operate in such contexts.

In emerging markets where FDI inflow is higher, MFIs may feel more comfortable going beyond their basic mission of providing financial services to additionally provide knowledge support to encourage entrepreneurship. MFIs that operate in contexts where FDI is higher may be better equipped to provide knowledge in addition to financial services to BoP borrowers because the MFI itself is operating in a stronger financial market that is more conducive for economic and social development. Further, in this context MFIs may provide knowledge in addition to financial support to BoP borrowers. This is because the MFI believes that the context is such that creates a favorable business climate for BoP borrowers, and that BoP borrowers will be able to translate these knowledge and financial services into successful microenterprises. Thus, MFIs that provide knowledge support to encourage entrepreneurship in contexts with higher FDI may experience lesser costs associated with operating at the BoP because the investment climate is more conducive for BoP entrepreneurship. As such, it is less risky for these BoP borrowers to create and grow successful microenterprises. A positive investment and business climate would reduce the concern in MFIs about the ability of these BoP borrowers to

translate the knowledge and financial services provided to create and grow successful microenterprises.

In contrast, in countries where FDI inflow is low, MFIs are more likely to be concerned about the ability of these BoP borrowers to translate the knowledge and financial services provided to create and grow successful microenterprises. In these contexts, MFIs may incur higher costs associated with operating at the BoP because they are wary of the ability of these BoP borrowers to translate the knowledge services in addition to the financial services provided to create and grow successful microenterprises, but also in their ability to repay the loans. As such, these MFIs may go to greater lengths to ensure the knowledge and financial services are creating and growing successful microenterprises, but also that the borrower has the ability to repay the loan. As a result, we suggest that FDI may be instrumental in moderating the association between MFIs' knowledge support to encourage entrepreneurship and the MFI's costs of operating at the BoP. Thus, we propose:

Hypothesis 1: FDI moderates the influence of an MFI's knowledge support to encourage entrepreneurship on the MFI's costs of operating at the BoP. The influence is more strongly positive when FDI is lower.

Contextual Contingency: Loan Defaults

Loan defaults are a challenging problem in emerging markets. Given the high costs of operating in regions with poor infrastructure and facilities, MFIs in emerging markets typically charge high interest rates from borrowers (Dehejia, Montgomery, & Morduch, 2012; Fernando, 2006; Ledgerwood, 1999; Morduch, 2000; Rhyne, 1998). Further, emerging markets also face higher levels of political, social, and economic risks, all of which make it difficult for both MFIs and entrepreneurs to do business. Finally, because of inefficient litigation in dysfunctional

courts, contracts are difficult to enforce. As such, violators are not fearful to breach contracts. Thus, in emerging markets, loan defaults can be a major problem. Some BoP entrepreneurs may genuinely struggle to repay MFI loans, whereas some BoP entrepreneurs may be reluctant to repay MFI loans even if they have the money to do so. This may give rise to borrowers not repaying loans to MFIs, resulting in write-offs of the loans (Field & Pande, 2008; Rosenberg, 2009).

The inability and/or reluctance of borrowers to repay loans exposes a potentially dark side of microfinance and BoP entrepreneurship. First, consider the genuine inability of borrowers to repay loans. Both social and political elements within an emerging market may spur effects that contribute to loan defaults. BoP entrepreneurs may not be able to repay loans borrowed from MFIs, creating grave social effects such as riots, deterioration of community relationships, and even suicide and death (Hulme, 2000; Montgomery, 1996). Thus, social consequences of the inability to repay MFI loans may prevent other borrowers from repaying existing loans or taking out new loans. In addition to social effects, political effects may influence the climate for entrepreneurship.

Second, consider the reluctance of borrowers to repay loans (Futagami & Helms, 2009). Increasingly, there are instances where politicians in emerging markets —often influenced by communist, socialist, and anti-capitalist ideologies— discourage borrowers from repaying loans. Political leaders, government officials, and activists accuse MFIs of being exploitative and greedy. The politically-spurred backlash against microfinance can either motivate or scare borrowers into not repaying loans, resulting in non-recoverable loans for MFIs (Harford, 2009; Sparreboom, 2011). The MFIs, in the face of such political uncertainty and potential threat of loan defaults, react by redoubling their loan-monitoring efforts.

Thus, political and social factors influencing loan defaults may create contagion effects that impact the relationship between MFIs' knowledge support to encourage entrepreneurship and the MFI's costs of operating at the BoP. Accordingly, we suggest:

Hypothesis 2: Loan defaults moderate the influence of an MFI's knowledge support to encourage entrepreneurship on the MFI's costs of operating at the BoP. The influence is more strongly positive when loan defaults are higher.

METHODS

Sample and procedure

Our sample consists of MFIs in emerging countries in five regions: Eastern Europe and Central Asia, East Asia, South Asia, Latin America and the Caribbean, and the Middle East. Data on the selected MFIs are collected by the MIX, a non-profit private organization that promotes information sharing and transparency for the microfinance industry on financial and social performance for MFIs (MIX Market, 2010). Our dataset uses both financial data and annual survey data on MFIs provided by the MIX.

Financial data is directly submitted to the MIX by each MFI, by the affiliated network that files on the MFI's behalf, or gathered from public documents published by the MFI, such as annual reports. The MIX supplements these data with archival documents, such as ratings, annual reports, donor/investor reports, and audits to capture market dynamics as well as more integrated performance data of individual MFIs. Data are validated by more than 100 quality checks and standardized by the MIX in accordance with International Financial Reporting Standards (IFRS), then made publicly available through the MIX website (MIX Market, 2010).

Annual survey data are voluntarily provided to the MIX by the institution or affiliated network. Data are submitted through the data submission form if a first-time submitter, or the profile update form if the institution has previously submitted data to the MIX. Both forms are made publicly available by the MIX on the MIX website. Annual survey data consist of information on services provided by MFIs, governance structure, and social performance indicators. The MIX began collecting annual survey data voluntarily from MFIs in 2008.

A longitudinal panel dataset is created by merging three databases: the MIX annual survey data for years 2008 and 2009, the MIX financial indicators database for years 2008 through 2010, and the World Bank Development Indicators database for the relevant years. The sample size is dictated by the extent of overlap among the merged databases and the availability of non-missing data for the variables of interest. The merged panel dataset allows a sample size of 136 firm-years.

Insert Table 4 about here

Table 4 provides the sample characteristics. The MFIs included in this sample are distributed across 31 countries, with MFIs from the Latin American region having largest representation. The World Bank (2011) defines high-income countries as those with GNP per capita greater than \$12,275. None of the MFIs in our sample operate in high-income countries. Furthermore, we verified that the MFIs in our sample function primarily in the poorer regions within their respective countries (the MIX website provides contact information for each MFI and displays the regions where the MFI operates). Fifty-six percent of the MFIs in our sample are non-profit organizations and 44% are non-governmental organizations (NGOs). The sample

means of financial and operational data suggest that an average MFI is a relatively small organization (in terms of total assets and number of employees) with a very strong focus on the microfinance business (approximately 93% of operations is in microfinance).

Measures of variables in hypotheses

MFI's costs of operating at the BoP. A substantial portion of the operating expense of MFIs functioning at the BoP of emerging markets is the cost of monitoring borrowers. Monitoring of borrowers is important for MFIs to assess and manage their risk exposure, especially because borrowers often lack property that can be pledged as collateral. Thus, monitoring is necessary to ensure that borrowers make their payments on time. This may involve MFI personnel travelling from village to village at regular intervals to meet borrowers to assess their payment capacity (Akula, 2008). The locations are usually difficult and time-consuming to reach due to the tough terrains, geographic dispersion, and lack public infrastructure and transportation, all of which increase the MFI's operational costs. Accordingly, an MFI's costs of operating at the BoP is measured as the MFI's operational cost per borrower, calculated as the ratio of the annual operating expense to number of active borrowers. The numerator, operating expense, is the expense related to operations, including all personnel, travel, and administrative expenses. The denominator, number of active borrowers, is the number of individuals or entities who currently have an outstanding loan balance with the MFI or are primarily responsible for repaying any portion of the MFI's gross loan portfolio. An individual/entity that has multiple loans with an MFI is counted as a single borrower.

MFI's knowledge support to encourage entrepreneurship. MFI's knowledge support to encourage entrepreneurship is measured as the aggregate number of various knowledge resources offered by the MFI to support BoP entrepreneurship. The value of this variable is zero

for MFIs that provide only financial services. The value of this variable is greater than zero for MFIs that provide knowledge resources for BoP entrepreneurship in addition to providing financial services. The knowledge resources fall into the following categories as indicated by MIX (MIX Market, 2010): (a) *Enterprise skills development knowledge*: includes vocational training, technical and management skills courses to develop small-scale enterprises, (b) *Business development knowledge*: includes information, training, business advice, consulting and marketing services, assistance with information and communications technology (ICT), technical assistance, and business links, (c) *Financial literacy knowledge*: training which addresses topics related to financial planning, savings, investments, borrowings, budgets, interest rates, etc., (d) *Occupational health and safety knowledge*: training that aims to inform local entrepreneurs about how to ensure safe and healthy working conditions. The value of the variable is increased for each knowledge resource provided by the MFI. That is, an MFI receives one point for each of (a) through (d), which allows for a maximum score of 4 points.

Note that a zero score for this measure is a meaningful value — meaning that the MFI is fixed to the basic strategy (i.e., providing only standard financial services to borrowers). A non-zero score also has meaning. It means that the MFI is attempting to (go beyond the basic strategy in order to) adopt the supplemented strategy (i.e., support entrepreneurship among borrowers by providing knowledge resources in addition to providing standard financial services). Toward this end, different MFIs can choose to provide different kinds of knowledge resources. Our measure attempts to capture a wide array of knowledge resource possibilities. For example, enterprise skill development is proven to be an important factor in developing BoP entrepreneurship (Afrin, et al., 2010). Similarly, business development and financial literacy demonstrate increased knowledge in BoP entrepreneurs (Karlan & Valdivia, 2011). MFIs can provide knowledge to

BoP entrepreneurs on occupational health and safety to limit the BoP entrepreneurs' health and safety risks in addition to the MFI's lending risks (Wenner, Wright, & Lal, 2004). By providing one or more of these knowledge resources, MFIs can help to support entrepreneurship in emerging markets.

Foreign direct investment in the country. This is measured as ratio of the FDI (foreign direct investment) inflow to GDP (gross domestic product) of the country where the MFI functions. The numerator, FDI inflow, is an aggregate of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the country's balance of payments (World Bank, 2011). The denominator is the country's gross domestic product. FDI inflow is a macroeconomic indicator, which, if favorable, provides a better business climate for MFIs and also BoP entrepreneurs with greater opportunities to create viable microenterprises (Havranek & Irsova, 2010). Inflow of FDI is both an indication of and a contributor to better investment climates, improving productivity of the country (Zhao & Zhang, 2010), lowering unemployment (Chaudhuri, Yabuuchi, & Mukhopadhyay, 2006), increasing foreign exchange earnings (Ram & Zhang, 2002), and expanding domestic investment (Mah, 2010). Moreover, creation and ownership of businesses has been shown to be more advantageous in countries that have higher levels of FDI inflow (Yiu, et al., 2007). The better investment climate fosters stronger business relationships which is important for MFIs, as well as providing more opportunities for BoP entrepreneurs.

Loan defaults. Loan defaults are reflected in the extent of write-offs due to uncollectable loans. It is measured using the MFI's write-off ratio, which is the ratio of write-offs to the gross loan portfolio. The numerator is the total amount of loans written off during the year. A write-off is an accounting procedure that removes the outstanding balance of the loan from the loan

portfolio and from the impairment loss allowance when these loans are recognized as uncollectable. The denominator is the gross loan portfolio, which is the aggregate of all outstanding principals due for all outstanding client loans. It includes current, delinquent, and renegotiated loans, but does not include loans that have been written-off and does not include interest receivable.

Control variables

Firm dummies. The regressions used for this study are one-way fixed effects regressions, which automatically generate dummies for each firm (MFI). By using each firm as its own control, the regression controls for all stable characteristics of the firms and uses only within-firm variation to estimate the regression coefficients.

MFI size. Size of the MFI is included as a control because larger MFIs are likely to have a greater influence among the community and other stakeholders. Further, while larger size allows for greater economies of scale, it can also result in a lack of focus and management/coordination problems. Hence, we control for firm size, measured as \ln (total assets), where total assets is in dollars.

MFI return on assets. An MFI's return on assets is measured as a ratio. The numerator is a firm's net income, which is the annual income or loss reported by a firm on its income statement after subtracting expenses and losses from all revenues and gains. The denominator is total assets, which represents the total assets/liabilities of a firm, as reported on its balance sheet. Though return on assets is an appropriate performance measure in the management literature, it is often considered a somewhat inappropriate measure of performance in the microfinance literature because the majority of MFIs receive substantial subsidies. As a result, the question of whether MFIs can sustainably operate without subsidies becomes more critical than whether the

MFI is able to deploy its assets profitably (Rosenberg, 2009). Hence, we relegated the return on assets measure to a control variable.

Country prosperity. Country prosperity is an indicator of economic wealth and quality of life, and is negatively related to poverty. Country prosperity is calculated as gross domestic product (GDP) per capita in constant U.S. dollars, based on purchasing power parity. GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products (World Bank, 2011).

Country mortality. The country mortality rate is measured as the crude death rate for the country, or the number of deaths occurring during the year, per 1,000 population estimated at midyear (World Bank, 2011). This human factor measure, in contrast to the financial measure of country prosperity, is an indicator of poverty and poor health infrastructure in the emerging market (Cabigon, 2005).

RESULTS

We hypothesized that the influence of MFI's knowledge support to encourage entrepreneurship on the MFI's costs of operating at the BoP is contingent on levels of FDI in the emerging market and loan defaults. In the MIX survey database, annual data for the predictor variable (MFI's knowledge support to encourage entrepreneurship) is available for the period 2008-2009. Following standard practice to indicate the direction of influence, the data used for control variables and independent variables are lagged behind the data for the dependent variable by 1 year. Hence, data for the dependent variable (MFI's costs of operating at the BoP) are obtained for the period 2009-2010 from the MIX financials database.

Insert Table 5 about here

Table 5 provides the descriptive statistics and correlations for our study. One-way fixed effect regressions are used to test the hypotheses, the results of which are included in Table 6. For the regressions, all the variables were standardized (with mean set to zero) to avoid multicollinearity problems and to obtain standardized parameter estimates. The independent variables were lagged behind the dependent variable by 1 year, to indicate the longitudinal direction of the effects being tested. Figure 1 provides the interaction plots (the moderator variables are continuous, but only lines representing high and low values of the moderators are plotted for ease of visualization).

Insert Table 6 about here

Insert Figure 1 about here

We find support that both of our contextual factors significantly moderate the influence of an MFI's knowledge support to encourage entrepreneurship on the MFI's costs of operating at the BoP. First, consistent with hypothesis 1, FDI inflow moderates the influence of an MFI's knowledge support to encourage entrepreneurship on the MFI's costs of operating at the BoP ($\beta = -0.10$ with $p < 0.05$ in model M4 and $\beta = -0.09$ with $p < 0.05$ in model M6 in Table 5). As

shown in the interaction plot in Figure 1, the influence of an MFI's knowledge support to encourage entrepreneurship on the MFI's costs of operating at the BoP is significantly positive when FDI is low (simple slope = 17.44, $p < 0.05$). Hence, an MFI's costs of operating at the BoP are greatest when it attempts to provide knowledge support to encourage entrepreneurship in a country where FDI is low.

Second, consistent with hypothesis 2, loan defaults moderate the influence of an MFI's knowledge support to encourage entrepreneurship on the MFI's costs of operating at the BoP ($\beta = 0.10$ with $p < 0.05$ in model M5 and $\beta = 0.08$ with $p < 0.10$ in model M6 in Table 5). As shown in the interaction plot in Figure 1, the influence of an MFI's knowledge support to encourage entrepreneurship on the MFI's costs of operating at the BoP is significantly positive when loan defaults are high (simple slope = 24.36, $p < 0.05$). Hence, an MFI's costs of operating at the BoP are greatest when it tries to provide knowledge support to encourage BoP entrepreneurship in a context where loan defaults are high.

In sum, the results in Table 6 and interaction plots in Figure 1 suggest that MFI's costs of operating at the BoP are greatest when it attempts to provide knowledge support to encourage BoP entrepreneurship in unfavorable contexts (low FDI and high loan defaults).

DISCUSSION

Our results suggest that the influence of an MFI's knowledge support to encourage entrepreneurship on the MFI's costs of operating at the BoP is strengthened when FDI is high and loan defaults are low. This study builds on previous research to address the role of microfinance institutions in going beyond their basic mission of providing financial services to also provide knowledge support to encourage entrepreneurship. We extend this research by

examining contextual factors that may influence the relationship between providing such support and costs incurred for MFIs. We discuss the implications and future research avenues in the following paragraphs.

Theoretical Implications and Contributions

Our findings have several important contributions. First, we focus on contextual factors that play a role in emerging markets. Mixed results on attempts to encourage entrepreneurship in emerging markets, especially by microfinance institutions, direct our attention toward contextual factors that may aid in accounting for such variation in results. Our results suggest that going beyond their basic mission of providing finance services to additionally provide knowledge support to encourage entrepreneurship can become a burden for MFIs in contexts that are unfavorable (i.e., in contexts where FDI is low and loan defaults are high). While the intentions might be good, by attempting to provide knowledge support to encourage entrepreneurship in such unfavorable contexts, MFIs might in fact be operating in bleak contexts, but also giving ‘false hope’ to borrowers. This is because the chance of entrepreneurial success in such unfavorable contexts is low. The false hope given to impoverished borrowers —that they can become successful entrepreneurs in unfavorable contexts— might only serve to increase the MFIs’ costs of operating at the BoP, and perhaps drive both the aspiring entrepreneurs and the MFIs toward financial ruin. This is an unfortunate scenario where good intentions can be thwarted by harsh realities. Nonetheless, we believe that there is hope for MFIs and BoP borrowers — if governments make efforts to improve the contexts. As our results illustrate, providing knowledge support to encourage entrepreneurship is worthwhile for MFIs in contexts where FDI is high and loan defaults are low. This is because in such contexts, supporting BoP entrepreneurship does not contribute to the MFIs’ costs of operating at the BoP. When FDI is

high and loan defaults are low, the business climate is more conducive for the services provided by MFIs. As such, the knowledge and financial services provided to BoP entrepreneurs can better facilitate the creation and growth of successful microenterprises because the overall climate is one that is favorable for entrepreneurship. Governments can help remedy the harsh realities by working toward creating a modern socio-economic environment that is (i) welcoming of and conducive for FDI and (ii) discourages loan defaults.

Second, we address contagion effects as related to entrepreneurship in emerging markets rife with institutional voids. Contagion effects can be used to understand why some contexts are crafted of an institutional fabric that makes sense for MFIs to go out of their way to encourage BoP entrepreneurship and why others do not. Though BoP borrowers and even MFIs may not directly benefit from FDI inflows in the countries in which they operate, the existence of FDI in these contexts creates contagion effects that can aid in explaining how FDI inflows can create business and investment climates that are conducive for entrepreneurship. We argue that a business and investment climate that is more conducive for BoP entrepreneurship enables MFIs to additionally provide knowledge support to encourage entrepreneurship without adding to the MFI's costs of operating at the BoP. It is true that the largest proportion of FDI flows into industries dominated by large corporate entities. As a result, many MFIs and BoP entrepreneurs may not be the direct beneficiaries of FDI. Nevertheless, MFIs and BoP entrepreneurs may still benefit from FDI inflows into their country. Contagion effects help explain how the business, knowledge, and resources gained by the large corporate entities through FDI ultimately strengthen the social and economic context in the host country, eventually impacting smaller businesses (such as MFIs) and even the smallest entrepreneur (Findlay, 1978). Furthermore, the ability and/or willingness to repay loans by BoP entrepreneurs can be influenced by political and

social climates of emerging markets. The contagion effects that influence BoP entrepreneurs to not repay loans results in the MFIs having to increase the monitoring of borrowers. These MFIs must invest more in post-lending monitoring to ensure that BoP entrepreneurs are successful in creating and growing microenterprises and comply with the contractual obligations of repaying loans.

Third, we address the difficulties of encouraging BoP entrepreneurship in emerging markets. In emerging markets characterized by institutional arrangements where investment climate is poor as evidenced by low FDI, social and economic development is stifled (Asiedu, 2002; De Mello, 1997; Schneider & Frey, 1985), and financial markets are weaker. Thus, emerging markets that are unable to attract foreign investment and provide a healthy investment climate for domestic institutions and entrepreneurs fail to gain positive social, financial, and economic effects that can create better contexts in which MFIs and BoP entrepreneurs and operate. In emerging markets where loan defaults are high as evidenced by a high write-off ratio, MFIs become concerned and intensify their costly loan monitoring efforts (Fernando, 2006; Ledgerwood, 1999; Pretes, 2002). As a result, both MFIs and the aspiring entrepreneurs may find it difficult to operate as viable enterprises and survive. This may result in both MFIs and micro-entrepreneurs being choked out of the under-developed and financially weak system (Korosteleva, 2009; Lin, 2010).

Finally, this study has noteworthy implications regarding the viability of microfinance as a tool to boost micro-entrepreneurship for poverty alleviation in emerging markets. Positioning our findings in the related research, we believe we provide insight to the question of 'mission drift' in microfinance research (Gonzalez & Rosenberg, 2006; Morduch, 2000; Prahalad & Hart, 2002). Mission drift is a phenomenon in which MFIs struggle to simultaneously (i) encourage

BoP entrepreneurship for poverty alleviation at the BoP and (ii) continue to operate as a viable microfinance business. We believe that it is possible for MFIs to pursue both objectives; however, it is contingent on contextual factors, such as FDI and loan defaults. MFIs may experience mission drift in institutional arrangements in which the political or social climate encourages BoP entrepreneurs to not repay loans, or when the economy lacks the presence of FDI. Thus, while we agree that MFIs can and should seek to simultaneously alleviate poverty and operate as viable businesses, they may face tremendous difficulties in doing so in emerging markets with low FDI and high loan defaults.

Implications for Practice

We believe that our study also has important implications for practice. We deem the BoP to be a rich source of business and entrepreneurial activity that should not be ignored (Prahalad, 2010; Prahalad & Hammond, 2002; Prahalad & Hart, 2002). In particular, “businesses can gain three important advantages by serving the poor – a new source of revenue growth, greater efficiency, and access to innovation,” (Prahalad & Hammond, 2002, p. 6). Governments and political leaders of emerging markets can help by creating an environment that welcomes FDI and discourages the non-repayment of loans. This could motivate MFIs to provide knowledge support to encourage entrepreneurship without the fear of significant costs incurred from operating at the BoP. We believe that providing knowledge support to encourage entrepreneurship can aid the aspiring poor to create viable microenterprises, but urge MFIs to understand the contextual factors that influence the environments in which they operate. Specifically, as a pre-condition of entry and operation in an emerging market, MFIs should advocate for conditions that welcome FDI and discourage non-payment of loans to government and political leaders. Else, the MFIs may find themselves in a tailspin of uncontrollable costs and

bad debt, hurting their ability to continually encourage BoP entrepreneurship. Thus, it is crucial that MFIs manage client and government relationships in manner that is consistent with the context in which they operate (Rottig, 2007).

Limitations and Future Research

Our data allow us to investigate the importance of contextual factors in the relationship between providing knowledge support to encourage entrepreneurship by MFIs and the costs of operating at the BoP. Our study presents some limitations that can be addressed by future research. First, we explore microfinance-led entrepreneurship in emerging markets. Though microfinance is an important catalyst of BoP entrepreneurship, it is not the only available mechanism in these markets. Thus, future research may investigate the relationships suggested by this study in relation to entrepreneurship that is not aided by microfinance.

Second, we chose to focus on two contextual contingencies that play a role in this relationship, but believe that other contextual factors could also play a role to varying degrees. We chose these two contextual factors based on extant research on the effects of microfinance, as well as previous studies that examine entrepreneurship in emerging markets. Further, practitioner- and non-academic-oriented coverage of these contextual factors highlight the importance of examining these facets of emerging markets as related to our study to illuminate concerns of microfinance and entrepreneurship at the BoP (Bajaj, 2011; Bateman, 2011; de Sam Lazaro, 2011; Goldstein, 2011; Sharpe & Schwart, 2011). Future studies should investigate alternative contextual characteristics to build on the groundwork laid by this study's findings.

Finally, we focus on the relationship between an MFIs' knowledge support to encourage entrepreneurship and the MFI's costs associated with operating at the BoP in light of contextual contingencies. Though we believe our study sheds light on microfinance research related to the

influence of MFI strategy on costs of operating at the BoP, we do so without examining the motives for MFIs to adopt differing strategies. Thus, our study paves the way for future research to explore antecedents to MFI strategies at the BoP, and specifically the relationship of MFI motives for strategy selection to better understand why MFIs choose the strategies they do, and how these choices can impact important MFI consequences, such as costs of operating at the BoP.

Conclusion

The bottom of the pyramid is often overlooked as a potential source for business opportunities and entrepreneurial activity. What is more, contextual factors can play a role in the viability of entrepreneurship in emerging markets rife with institutional voids. We argue that FDI and loan defaults act as moderators in the association between an MFI's knowledge support to encourage entrepreneurship and the MFI's costs of operating at the BoP. Providing knowledge support to encourage entrepreneurship is challenging, and might not be worthwhile for MFIs functioning in contexts where FDI is low and loan defaults are high. This is because it would add to the MFI's costs of operating at the BoP, which could ultimately make the MFI unviable, and give false hope to struggling BoP entrepreneurs. In contrast, providing knowledge support to encourage entrepreneurship is feasible in contexts where FDI is high and loan defaults are low because it does not contribute to the MFI's costs of operating at the BoP. Our findings indicate that the ability of MFIs to provide knowledge support to encourage entrepreneurship while operating as viable businesses is contingent in part on context. Our study paves the way for future research on the importance of contextual factors to understand the challenges and opportunities presented by entrepreneurship in emerging markets.

REFERENCES

- Acs, Z., & Szerb, L. (2007). Entrepreneurship, Economic Growth and Public Policy. *Small Business Economics*, 28(2), 109-122.
- Afrin, S., Islam, N., & Ahmed, S. U. (2010). Microcredit and Rural Women Entrepreneurship Development in Bangladesh: A Multivariate Model. *Journal of Business & Management*, 16(1), 9-36.
- Agarwal, N. (2006). Costing of MFIs *ICICI Bank*.
- Akula, V. (2008). Business Basics at the Base of the Pyramid. *Harvard Business Review*, 86(6), 53-57.
- Alfaro, L., Chanda, A., Kalimbli-Ozcan, S., & Sayek, S. (2003). FDI Spillovers, Financial Markets, and Economic Development. *International Monetary Fund Working Paper WP/03/186*.
- Almor, T. (2011). Dancing as fast as they can: Israeli high-tech firms and the Great Recession of 2008. *Thunderbird International Business Review*, 53(2), 195-208.
- Almounsor, A. (2007). *Capital flight and foreign direct investment in the Middle East and North Africa: Comparative development and institutional analysis*. Amherst: University of Mass.
- Alon, I., & McIntyre, J. R. (2004). Introduction. In I. Alon & J. R. McIntyre (Eds.), *Business education and emerging market economies: Perspectives and best practices*. Norwell, MA: Kluwer Academic Publishers.
- Asiedu, E. (2002). On the Determinants of Foreign Direct Investment to Developing Countries: Is Africa Different? *World Development*, 30(1), 107-119.
- Bajaj, V. (2011). Microlenders, Honored With Nobel, Are Struggling. *The New York Times*.
- Balasubramanyam, V. N., Salisu, M., & Sapsford, D. (1999). Foreign direct investment as an engine of growth. *The Journal of International Trade & Economic Development*, 8(1), 27-40.
- Banerjee, A., Duflo, E., Glennerster, R., & Kinna, C. (2010). Measuring the Impact of Microfinance in Hyderabad, India. *Centre for Micro Finance (CMF)*.
- Bartik, A. (2009). *How are micro-loans used?* : Innovations for Poverty Action, Inc.
- Bateman, M. (2011). *Confronting microfinance: Undermining sustainable development*. Sterling, VA: Kumarian Press.
- Borensztein, E., De Gregorio, J., & Lee, J. W. (1998). How does foreign direct investment affect economic growth? *Journal of International Economics*, 45(1), 115-135.
- Bruton, G. D., Ahlstrom, D., & Obloj, K. (2008). Entrepreneurship in Emerging Economies: Where Are We Today and Where Should the Research Go in the Future. *Entrepreneurship: Theory & Practice*, 32(1), 1-14.
- Cabigon, J. V. (2005). *Poverty: The cause and consequence of Philippine mortality*. Paper presented at the CICRED Seminar on Mortality as Both a Determinant and a Consequence of Poverty and Hunger, Thiruvananthapuram, India.
- Carland, J. C., & Carland, J. W. (2004). Economic development: changing the policy to support entrepreneurship. *Academy of Entrepreneurship Journal*, 10(2), 105-114.
- CGAP. (1999). Law No. 117 of 1999 on Credit Unions (Kyrgyz). *Consultative Group to Assist the Poor*.
- CGAP. (2011). *Microfinance gateway*. Retrieved from <http://www.microfinancegateway.org>.

- Chaudhuri, S., Yabuuchi, S., & Mukhopadhyay, U. (2006). Inflow of Foreign Capital and Trade Liberalization in a Model with an Informal Sector and Urban Unemployment. *Pacific Economic Review*, 11, 87-103.
- Cooke, W. N. (1997). The Influence of Industrial Relations Factors on U.S. Foreign Direct Investment Abroad. *Industrial & Labor Relations Review*, 51(1), 3-17.
- Davidsson, P., & Honig, B. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*, 18(3), 301-331.
- De Backer, K., & Sleuwaegen, L. (2003). Does Foreign Direct Investment Crowd Out Domestic Entrepreneurship? *Review of Industrial Organization*, 22(1), 67-84.
- De Mello, L. R. (1997). Foreign direct investment in developing countries and growth: A selective survey. *Journal of Development Studies*, 34(1), 1.
- de Sam Lazaro, F. (2011). Regulators Crack Down on Microfinance Industry in India. *PBS - The Rundown*.
- Dehejia, R., Montgomery, H., & Morduch, J. (2012). Do interest rates matter? Credit demand in the Dhaka slums. *Journal of Development Economics*, 97(2), 437-449.
- Efird, C. (2008). Public market finance for growth-stage companies in emerging markets: The U.S. alternative IPO moves to fill the gap. *Thunderbird International Business Review*, 50(6), 375-379.
- Fabry, N. H., & Zeghni, S. H. (2003). FDI in CEECs: How do Western investors survive? *Thunderbird International Business Review*, 45(2), 133-147.
- Fernando, N. A. (2006). Understanding and Dealing with High Interest Rates on Microcredit A Note to Policy Makers in the Asia and Pacific Region. *Asian Development Bank*.
- Field, E., & Pande, R. (2008). Repayment frequency and default in microfinance: Evidence from India. *Journal of the European Economic Association*, 6(2/3), 501-509.
- Findlay, R. (1978). Relative backwardness, direct foreign investment and the transfer of technology: A simple dynamic model. *Quarterly Journal of Economics*, 92, 1-16.
- Focus, M. (2011). *6 microfinance crises that the sector does not want to remember*: Microfinance Focus / Ekayana Media.
- Futagami, S., & Helms, M. M. (2009). Emerging female entrepreneurship in Japan: A case study of Digimom workers. *Thunderbird International Business Review*, 51(1), 71-85.
- Gallagher, M. (2005). *Contagious capitalism: Globalization and the politics of labor in China*. Princeton, NJ: Princeton University Press.
- Goldberg, L. (2004). *Financial-Sector Foreign Direct Investment and Host Countries: New and Old Lessons*. Cambridge, MA: National Bureau of Economic Research.
- Goldberg, N. (2005). Measuring the impact of microfinance: taking stock of what we know. *Grameen Foundation*.
- Goldmark, L. (2006). Beyond Finance: Microfinance and Business Development Services. In M. Berger, L. Goldmark & T. Miller-Sanabria (Eds.), *An Inside View of Latin American Microfinance* (pp. 193-234). Washington: Inter-American Development Bank, Multilateral Investment Fund.
- Goldstein, J. (2011). The Microfinance Backlash. *Planet Money*.
- Gonzalez, A., & Rosenberg, R. (2006). *The state of microfinance - outreach, profitability and poverty (findings from a database of 2600 microfinance institutions)*. Paper presented at the World Bank Conference on Access to Finance.
- Grachev, M. V., Rogovsky, N. G., & Bobina, M. A. (2006). 3M: Role model for emerging markets. *Thunderbird International Business Review*, 48(6), 803-821.

- Gudz, S. F. (1999). The potential role of microfinance institutions in mobilizing savings : lessons from Kenya and Uganda / Stephen F. Gudz *Working paper ; WP 99-16*: Ithaca, N.Y. : Dept. of Agricultural, Resource, and Managerial Economics, Cornell University, [c1999].
- Guruswamy, M., Sharma, K., Mohanty, J. P., & Korah, T. J. (2006). FDI in India's Retail Sector, More Bad than Good. *Centre for Policy Alternatives*.
- Hammond, A. L., Kramer, W. J., Katz, R. S., Tran, J. T., & Walker, C. (2007). The Next 4 Billion. *World Resources Institute, International Finance Corporation*.
- Harford, T. (2009). Perhaps microfinance isn't such a big deal after all. *Financial Times*.
- Hart, S. L. (2005). *Capitalism at the crossroads: The unlimited business opportunities in solving the world's most difficult problems*. Upper Saddle River, NJ: Wharton School.
- Hart, S. L., & Christensen, C. M. (2002). The Great Leap. *MIT Sloan Management Review*, 44(1), 51-56.
- Havranek, T., & Irsova, Z. (2010). *Which Foreigners are worth wooing? A Meta-Analysis of vertical spillovers from FDI*: William Davidson Institute.
- Hietalahti, J., & Linden, M. (2006). Socio-economic impacts of microfinance and repayment performance: a case study of the Small Enterprise Foundation, South Africa. *Progress in Development Studies*, 6(3), 201-210.
- Hirschland, M. (2003). *Serving small rural depositors: Proximity, innovations and trade-offs*. Paper presented at the Paving the way forward for rural finance: An International Conference on Best Practices, Washington, DC.
- Hu, A. G. Z., & Jefferson, G. H. (2002). FDI Impact and Spillover: Evidence from China's Electronic and Textile Industries. *World Economy*, 25(8), 1063-1076.
- Hulme, D. (2000). Is microdebt good for poor people? A note on the darkside of microfinance. *Small Enterprise Development*, 11, 26-28.
- Kant, C. (1996). Foreign Direct Investment. *Princeton Studies in International Finance*, 80(April), 1-38.
- Karlan, D., & Valdivia, M. (2011). Teaching Entrepreneurship: Impact of Business Training on Microfinance Clients and Institutions. *Review of Economics and Statistics*, 93(2), 510-527.
- Karlan, D. S., & Zinman, J. (2012). List randomization for sensitive behavior: An application for measuring use of loan proceeds. *Journal of Development Economics*, 98(1), 71-75.
- Khanna, T., Palepu, K. G., & Sinha, J. (2005). Strategies that fit emerging markets. *Harvard Business Review*, 83(6), 63-74.
- Kiyamaz, H., Alon, I., & Theodore Veit, E. (2009). Examining the returns of American depository receipts: Evidence from emerging and developed markets. *Thunderbird International Business Review*, 51(6), 567-581.
- Korosteleva, J. (2009). Internationalization and high-potential entrepreneurship. *Thunderbird International Business Review*, 51(3), 311-315.
- Kuroda, H., & Kawai, M. (2002). Strengthening regional financial cooperation in East Asia. *Pacific Economic Papers*, 332, 1-35.
- Ledgerwood, J. (1999). *Microfinance handbook: an institutional and financial perspective*. Washington, DC: The World Bank.
- Lin, X. (2010). The diaspora solution to innovation capacity development: Immigrant entrepreneurs in the contemporary world. *Thunderbird International Business Review*, 52(2), 123-136.
- Loungani, P., & Mauro, P. (2001). Capital Flight from Russia. *World Economy*, 24(5).

- Luo, Y. (2002). Contract, Cooperation, and Performance in International Joint Ventures. *Strategic Management Journal*, 23(10), 903-919.
- Lynch-Fannon, I. (2009). The Dynamic Entrepreneur or the Totally Incompetent Fool? The Role of Norms in Identifying Legitimate Risk-Taking Under Irish Company Law. In A. O'Neill & R. Keane (Eds.), *Corporate Governance and Regulation* (pp. 67-91). Roundhall: Thompson.
- Mah, J. S. (2010). Foreign Direct Investment Inflows and Economic Growth: The Case of Korea. *Review of Development Economics*, 14(4), 726-735.
- Mair, J., & Marti, I. (2009). Entrepreneurship in and around institutional voids: A case study from Bangladesh. *Journal of Business Venturing*, 24(5), 419-435.
- Mair, J., Martí, I., & Ventresca, M. J. (2012). Building Inclusive Markets in Rural Bangladesh: How Intermediaries Work Institutional Voids. *Academy of Management Journal*, 55(4), 819-850.
- Manolova, T. S., Eunni, R. V., & Gyoshev, B. S. (2008). Institutional Environments for Entrepreneurship: Evidence from Emerging Economies in Eastern Europe. *Entrepreneurship: Theory & Practice*, 32(1), 203-218.
- Mantri, R. G., Harsh. (2011). When FDI met retail. *Wall Street Journal*.
- Mersland, R., & Strom, R. O. (2008). Performance and trade-offs in microfinance institutions: Does ownership matter? *Journal of International Development*, 20(5), 598-612.
- Mersland, R., & Strom, R. O. (2009). Performance and governance in microfinance institutions *Journal of Banking & Finance*, 33(4), 662-669.
- Meyer, K. E. (2004). Perspectives on multinational enterprises in emerging economies. *Journal of International Business Studies*, 35(4), 259-276.
- MicroCapital, O. M. a. M. I. (2006). Microfinance Interest Rates as a Function of Transaction Costs, 2012, from <http://microcapitalmonitor.com/cblog/index.php?/archives/129-Microfinance-Interest-Rates-as-a-Function-of-Transaction-Costs.html>
- MIX Market. (2010). Financial Data and Social Performance Measures for Microfinance. *Microfinance Information Exchange*.
- Montgomery, R. (1996). Disciplining or Protecting the Poor? Avoiding the Social Costs of Peer Pressure in Micro-credit Schemes. *Journal of International Development*, 8(2), 289-305.
- Morduch, J. (2000). The microfinance schism. *World Development*, 28(4), 617-629.
- Morduch, J., & Haley, B. (2002). Analysis of the Effects of Microfinance on Poverty Reduction. *NYU working paper*.
- NSCB. (2012). Financial Definitions, 2012
- Odell, K. (2010). Measuring the impact of microfinance: Taking another look. *Grameen Foundation Publication Series*.
- OECD. (2008). The Social Impact of Foreign Direct Investment. *OECD Observer Policy Brief*, 1-8.
- Ozawa, T. (1992). Foreign direct investment and economic development. *Transnational Corporations*, 1(1), 27-54.
- Petricević, O., & Danis, W. M. (2007). Bosnia and Herzegovina: Navigating a turbulent business environment. *Thunderbird International Business Review*, 49(4), 417-443.
- Prahalad, C. K. (2010). *The Fortune at the Bottom of the Pyramid: Eradicating Poverty Through Profits*. Philadelphia: Wharton School Publishing.
- Prahalad, C. K., & Hammond, A. (2002). Serving the World's Poor, Profitably. *Harvard Business Review*, 80(9), 48-57.

- Prahalad, C. K., & Hart, S. L. (2002). The fortune at the bottom of the pyramid. *Business and Strategy, 1st Quarter*(26), 2–14.
- Pretes, M. (2002). Microequity and Microfinance. *World Development, 30*(8), 1341-1353.
- Ram, R., & Zhang, K. H. (2002). Foreign Direct Investment and Economic Growth: Evidence from Cross-Country Data for the 1990s. *Economic Development and Cultural Change, 51*(205–215).
- Raman, N. (2009). Microcredit : A healthy addiction? *India Development Blog IMFR Research*.
- RBS Foundation India. (2008). Microfinance and poverty alleviation: An impact assessment survey. *The Royal Bank of Scotland*.
- Reed, L. R. (2011). State of the Microcredit Summit Campaign Report. *Microcredit Summit Campaign*.
- Rhyne, E. (1998). The Yin and Yang of Microfinance: Reaching the Poor and Sustainability. *MicroBanking Bulletin*.
- Robinson, M. (2001). *The Microfinance Revolution: Sustainable Finance for the Poor*. Washington: World Bank.
- Robinson, P. B., & Sexton, E. A. (1994). The effect of education and experience on self-employment success. *Journal of Business Venturing, 9*(2), 141-156.
- Rosenberg, R. (2009). Measuring Results of Microfinance Institutions: Minimum Indicators That Donors and Investors Should Track. *Consultative Group to Assist the Poor/The World Bank*.
- Rottig, D. (2007). Successfully Managing International Mergers and Acquisitions: A Descriptive Framework. *International Business: Research Teaching and Practice, 1*(1), 97-118.
- Salimath, M. S. (2010). Widespread entrepreneurship to remove poverty at the bottom of the pyramid. *Thunderbird International Business Review, 52*(1), 71-73.
- Sauvant, K. P. (2006). World investment prospects to 2010: Boom or backlash? *Economist Intelligence Unit*.
- Schneider, F., & Frey, B. S. (1985). Economic and political determinants of foreign direct investment. *World Development, 13*(2), 161-175.
- Schreiner, M. (2002). Aspects of outreach: a framework for discussion of the social benefits of microfinance. *Journal of International Development, 14*(5), 591-603.
- Shankar, S. (2007). Transaction Costs in Group Microcredit in India. *Management Decisions 45*, 1331-1342.
- Sharpe, K., & Schwart, B. (2011). How Bad Intentions Can Destroy Good Ideas: The Case of Microcredit. *Psychology Today*.
- Sicular, T. (1998). Capital Flight and Foreign Investment: Two Tales From China and Russia. *World Economy, 21*(5), 589.
- Sparreboom, P. (2011). The Indian Microfinance Crisis 2010 — Lessons for China. *China Papers on Inclusiveness No. 4: Working Group on Inclusive Finance in China, 4*.
- Stoeber, W. A. (2005). Restructuring FDI policy in emerging economies: The republic of Korea case. *Thunderbird International Business Review, 47*(5), 555-574.
- Tan, J. (2002). Culture, Nation, and Entrepreneurial Strategic Orientations: Implications for an Emerging Economy. *Entrepreneurship: Theory & Practice, 26*(4), 95.
- Tchakoute-Tchuigoua, H. (2010). Is there a difference in performance by the legal status of microfinance institutions? *The Quarterly Review of Economics and Finance, 50*(4), 436-442.

- Tvaronavičiene, M., & Grybaite, V. (2007). Impact of FDI on Lithuanian economy: Insight into development of main economic activities. *Journal of Business Economics and Management*, 8(4), 285-290.
- UNDP. (2007). *Human Development Report 2007/2008*.
- Welsh, D., & Alon, I. (2001). *International franchising in emerging markets: Central and Eastern Europe and Latin America*. Chicago: CCH Publishing.
- Wenner, M., Wright, N., & Lal, A. (2004). Environmental protection and microenterprise development in the developing world. A model based on Latin American experience. *Journal of Microfinance*, 6(1), 95-122.
- Woller, G., & Parsons, R. (2002). Assessing the community economic impact of microfinance institutions. *Journal of Developmental Entrepreneurship*, 7, 133-150.
- World Bank. (2011). World Development Indicators (WDI). Retrieved from <http://data.worldbank.org/indicator/all>, 2011
- Yiu, D. W., ChungMing, L., & Bruton, G. D. (2007). International venturing by emerging economy firms: the effects of firm capabilities, home country networks, and corporate entrepreneurship. *Journal of International Business Studies*, 38(4), 519-540.
- Zdravkovic, S., & Amine, L. S. (2007). Croatia: A country “created from God's tears”. *Thunderbird International Business Review*, 49(4), 445-473.
- Zhao, Z., & Zhang, K. H. (2010). FDI and Industrial Productivity in China: Evidence from Panel Data in 2001–06. *Review of Development Economics*, 14, 656–665.
- Zhou, D., Li, S., & Tse, D. K. (2002). The impact of FDI on the productivity of domestic firms: the case of China. *International Business Review*, 11(4), 465-484.

TABLES AND FIGURES

Table 1. Variety in Ownership (Legal Status) of MFIs

MFI Ownership Type	Definition
Bank	“Corporations, companies or associations which are engaged in the lending of funds obtained from the public through the receipt of deposits and the sale of bonds, securities or obligations of any kind” (NSCB, 2012).
Credit Union	“Financial credit institutions that are created in the form of a cooperative in order to assist its members by merging the personal savings of credit union members and their use for mutual credit and providing other financial services” (CGAP, 1999).
Non-Bank Financial Intermediary (NBFi)	“Persons or entities whose principal functions include the lending, investing, or placement of funds or evidences of equity deposited with them, or otherwise coursed through them, either for their own account or for the account of others” (NSCB, 2012).
Non- Government Organization (NGO)	“An organization registered as a nonprofit for tax purposes or some other legal charter. Its financial services are usually more restricted, usually not including deposit taking. These institutions are typically not regulated by a banking supervisory agency” (MIX Market, 2010).
Rural Bank	“Government-sponsored/assisted banks which are privately managed and largely privately owned that provide credit facilities to farmers and merchants, or to cooperatives of such farmers or merchants at reasonable terms and in general, to the people of the rural community” (NSCB, 2012).

Table 2. Issues Raised By the Presence of FDI in Emerging Markets

Current Issue Raised by FDI	Sample of Supporting Literatures	Cause	Potential Controversy
Contracts	(Cooke, 1997; Luo, 2002; Sauvart, 2006)	Host countries are believed to have less negotiating power and are engaged in a “race to the bottom” in competing to attract investors.	Host countries believe they are the recipients of unfair deals based on strong power differentials.
Cutting out local business owners	(Guruswamy, et al., 2006; Mantri, 2011)	Open door policies to FDI supports foreign businesses to move into host countries.	Local business owners experience more competition from potentially better connected and integrated competitors
Capital flight	(Almounsor, 2007; Kant, 1996; Loungani & Mauro, 2001; Sicular, 1998)	The host countries position in terms of monetary transactions with countries across the world is jeopardized when the home country/investor recovers its initial outlay into the host country.	Once the initial investment becomes profitable, the capital returns emanating from the host country travel back to the home country.

Table 3. Controversies in Emerging Markets Stimulating Political and Social Backlash against Microfinance

Microfinance Controversy	Example of Evidence	Effect
Politics and the no-pay movement	<p>“Nicaragua’s president, Daniel Ortega, for example, supported ‘movimiento no pago,’ or the no-pay movement, which was started in 2008 by farmers after some borrowers could not pay their debts,” (Bajaj, 2011).</p> <p>“In the mid 2008, a movement called ‘Movimiento No Pago’ started which initialized the organization of violent protests and ultimately forced the microfinance institution branches to close. The movement has been mostly by farmers who have ties with the left-wing party. The leaders of the Movimiento No Pago from the North and Caribbean regions of Nicaragua have issued warnings that they will lead to mass destruction which includes burning the buildings of MFIs, taking hostage of MFI personnel and increasing the threshold of violence in case their demands for the moratorium law is not met,” (Focus, 2011).</p> <p>“A spate of suicides in the southern state of Andhra Pradesh drew in political leaders, some exhorting borrowers to stop making payments,” (de Sam Lazaro, 2011).</p>	<ul style="list-style-type: none"> ● Political influence against loan repayment can pressure borrowers not to repay MFI loans. MFIs may find it difficult to survive in these environments due to increased bad debt and write-offs, as well as higher costs to ensure current borrowers pay back loans.
MFIs profiting unjustly from the poor	<p>“The founders of a for-profit microlender in India made tens of millions of dollars,” (Goldstein, 2011)</p> <p>“These institutions are using quite coercive methods to collect. They aren’t looking at sustainability or ensuring the money is going to income-generating activities. They are just making money,” (Sharpe & Schwart, 2011).</p>	<ul style="list-style-type: none"> ● Political effect – leaders threatened to shut down MFIs. ● Psychological effect – Spike of suicides (Goldstein, 2011).
Limited evidence of benefits for microfinance clients	<p>“No evidence was found to suggest that microcredit empowers women or improves health or educational outcomes,” (Banerjee, Duflo, Glennerster, & Kinna, 2010).</p> <p>“Microfinance is expected to have several impacts, emerging from improved or stabilized economic conditions. The results however do not consistently point towards this,” (RBS Foundation India, 2008).</p>	<ul style="list-style-type: none"> ● The data may be too young to account for salient effects, but this information spurs concern regarding the promise of microfinance as a poverty alleviation tool.
Credit is dangerous	<p>“During a field visit to a group meeting of SMILE in the outskirts of Chennai, we asked women who had been clients for three to five years, how much longer they expected to take out loans for. The unanimous reply was: “For however much longer they will give it to me,” (Raman, 2009).</p> <p>“Many MFIs in Andra Pradesh are also well known for putting huge pressure on existing clients to continually top up their current microloan, quite irrespective of whether the client actually needs or wants or can productively use the additional money/microdebt. All told, it is now becoming abundantly clear that the poor in Andhra Pradesh have been pushed into an addition to microcredit, an addition unsustainably based upon the increasing substitution of (rising) debt for a lack of income,” (Bateman, 2011, p. 10).</p>	<ul style="list-style-type: none"> ● Credit is addictive. Once borrowers start taking out loans, it is difficult to stop, creating an aggregation of loans and debt.

Table 4: Characteristics of Sample

Average Financial and Operations Data of MFI	Mean
Total Assets, in millions of dollars	101.25
Gross Loan Portfolio, in millions of dollars	79.35
Number of Employees	638.65
Number of Offices	59.01
Years since MFI was established	13.63
% Operations comprised by Microfinance	92.80

Distribution of MFIs by Legal Status	Freq (%)
Bank	19.1
Credit Union / Cooperative	1.5
NBFI (Non-bank financial institution)	35.3
NGO (Non-Governmental Organization)	44.1
Rural bank / Others	0.0

Distribution of MFIs by Profit Status	Freq (%)
Non-profit organization	55.9
Profit Seeking organization	44.1

Distribution of MFIs by Regulated Status	Freq (%)
Unregulated (Informal) organization	44.1
Regulated (Formal) organization	55.9

Geographic Distribution of MFIs ... distributed across 5 regions and 31 countries	Freq (%)
EAST ASIA (Cambodia, China)	5.9
EASTERN EUROPE AND CENTRAL ASIA (Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Kazakhstan, Kosovo, Kyrgyzstan, Macedonia, Mongolia, Tajikistan)	29.4
LATIN AMERICA AND THE CARIBBEAN (Argentina, Bolivia, Brazil, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Paraguay, Peru, Venezuela)	58.8
MIDDLE EAST (Lebanon)	1.5
SOUTH ASIA (Bangladesh, India, Pakistan)	4.4

Sample size is n = 136 firm-years, involving 68 firms, where data is for the years 2008 and 2009.

Table 5: Correlations

Variable	mean	S.D.	1	2	3	4	5	6	7
1. MFI's Size	17.16	1.75	1.00						
2. MFI's Return on Assets	0.03	0.06	0.02	1.00					
3. Country Prosperity	5771.00	3160.00	0.09	0.36	1.00				
4. Country Mortality	6.63	1.56	-0.04	-0.29	-0.10	1.00			
5. MFI's Kn. Support to Enc. Entrepreneurship	1.10	1.08	-0.09	0.05	0.00	-0.20	1.00		
6. FDI in Country	4.30	3.38	-0.19	-0.06	-0.14	0.15	0.03	1.00	
7. Loan Defaults	0.02	0.02	0.14	-0.23	-0.07	0.12	-0.05	-0.23	1.00
8. MFI's Costs of Operating at the BoP	203.68	152.26	0.21	-0.17	0.18	0.07	-0.02	-0.17	0.26

Sample size is n = 136 firm-years, involving 68 firms. Data used for above correlations are time-lagged to reflect the direction of influence: variables 1 through 7 for the years 2008 and 2009, while variable 8 is for the years 2009 and 2010.

Note: Basic correlations fail to take into account the longitudinal/panel nature of data, and can therefore be misleading; hence, the literature suggests using fixed-effects regressions, rather than correlations, to test hypotheses.

Table 6: Fixed-Effects Panel Data Regressions

	MFI's Costs of Operating at the BoP as Dependent Variable (<i>time t+1</i>)						
	Standardized Parameter Estimates						
	M1	M2	M3	M4	M5	M6	Support
Intercept	-0.54	-0.60	-0.46	-0.77	-0.58	-0.82	
<i>Controls (time t):</i>							
Firm Dummies	✓	✓	✓	✓	✓	✓	
MFI Size	-0.01	-0.07	-0.12	-0.12	-0.16	-0.15	
MFI Return on Assets	-0.05	-0.04	-0.03	0.02	-0.00	0.00	
Country Prosperity	0.11	0.21	0.27	0.16	0.32	0.22	
Country Mortality	-0.11	0.00	0.03	0.14	0.08	0.17	
<i>Predictor (time t)</i>							
MFI's Knowledge Support to Encourage Entrepreneurship		0.07	0.06	0.02	0.05	0.03	No
<i>Moderator (time t)</i>							
FDI in Country			-0.15*	-0.17*	-0.12	-0.15*	
Loan Defaults			0.02	0.02	0.07	0.06	
<i>Interaction</i>							
MFI's Knowledge Support to Encourage Entrepreneurship × FDI in Country				-0.10*		-0.09*	Yes
MFI's Knowledge Support to Encourage Entrepreneurship × Loan Defaults					0.10*	0.08†	Yes
<hr/>							
R ²	0.9679	0.9689	0.9716	0.974	0.973	0.9755	
F-Value	24.83	24.96	25.10	27.12	26.08	27.58	
P-Value	<0.001	<0.001	<0.001	<0.00	<0.00	<0.001	
<hr/>							
Δ R ²		0.0010	0.0027	0.002	0.002	0.0039	
Wald ChiSq		2.21	5.61	5.99	4.91	9.48	
P-Value		0.137	0.060	0.014	0.027	0.009	

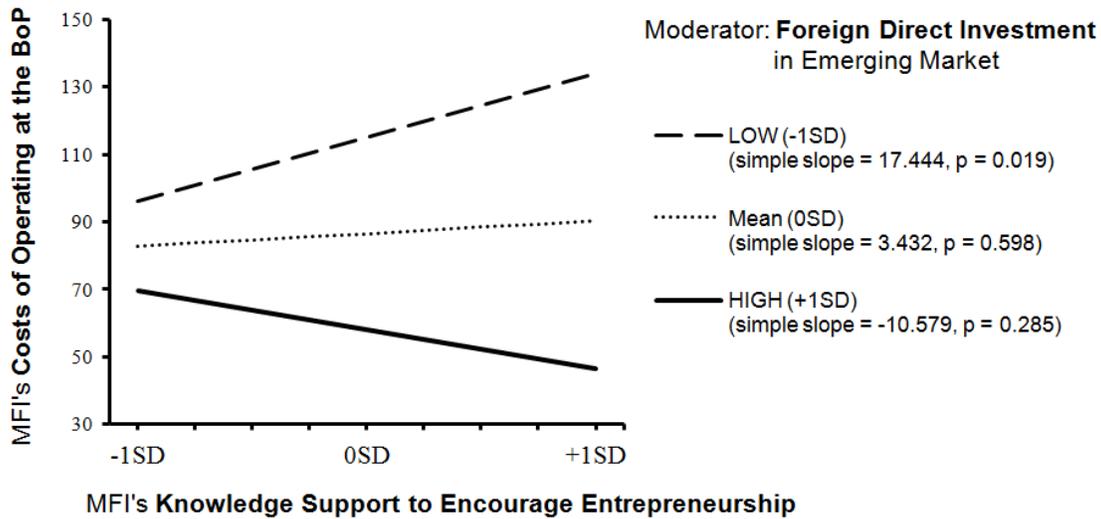
*** p ≤ 0.001, ** p ≤ 0.01, * p ≤ 0.05, † p ≤ 0.10 (conservative two-tailed tests).

Independent variables cover the period 2008-2009. Sample size is 136 firms-years (includes 68 firms, with each firm having at least 2 years of data). To indicate the direction of influence, data used for independent variables lag behind the data for dependent variables by 1 year. Hence, data for the dependent variable (MFI's costs of operating at the BoP) is from the period 2009-2010.

All variables are centered and standardized. Plot of the residuals against the predicted value did not indicate any evidence of heteroskedasticity problems. Variables are winsorized at 0.5 and 99.5 percentiles to limit the role of potential outliers (results are similar without winsorizing). Maximum variance inflation factor (VIF) = 1.57, suggesting no evidence of multicollinearity problems among independent variables. ΔR² and corresponding Wald tests for model M2 are with respect to model M1, for model M3 with respect to M2, and for models M4/M5/M6 with respect to model M3.

Figure 1. Interaction Plots: MFI's Knowledge Support to Encourage Entrepreneurship

When FDI in the emerging market is low, MFI's knowledge support to encourage entrepreneurship is likely to hurt the MFI — it would result in a greater costs of operating at the BoP for the MFI. In contrast, when FDI in the country is high, MFI's knowledge support to encourage entrepreneurship does not become a burden for the MFI. Hence, MFIs can comfortably support BoP entrepreneurship in emerging markets where FDI is high.



When loan defaults are high, MFI's knowledge support to encourage entrepreneurship is likely to hurt the MFI — it would result in a greater costs of operating at the BoP for the MFI. In contrast, when loan defaults are low, MFI's knowledge support to encourage entrepreneurship does not become a burden for the MFI. Hence, MFIs can comfortably support BoP entrepreneurship in emerging markets where loan defaults are low.

