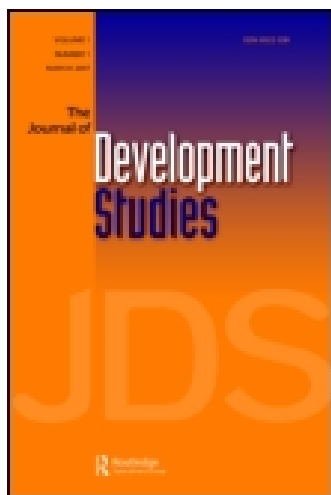


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Focus on Women in Microfinance Institutions

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ABSTRACT *We provide empirical evidence on focusing on women in microfinance and its consequences for microfinance institutions (MFIs). Based on a global dataset, the results indicate that a focus on women is associated with group-lending methods, international orientation, smaller loans, and non-commercial legal status. We find that a focus on women significantly improves repayment but does not enhance overall financial performance because of higher relative costs. Moreover, the higher relative costs do not stem from servicing women per se but from the smaller loans offered to women and the group-lending methodology practised by MFIs focusing on women.*

I. Introduction

Although microfinance research is rich in studies focusing on the possible effects of access to microfinance for women, little is known about how focusing on women influences the performance of microfinance institutions (MFIs). Some might argue that targeting women should be a matter of equality and poverty reduction and not MFI efficiency. But given that the microfinance industry is increasingly concerned with financial sustainability, analysing how targeting women influences the financial performance of MFIs is essential in order to understand how the focus on women may change as the microfinance industry matures. Despite the popular belief that women are more likely to repay, which allows MFIs that focus on women to reach financial sustainability more easily, we are not aware of any studies that have empirically investigated this issue in detail.

In this article, we respond to the following primary empirical questions: (1) What are the characteristics of MFIs that focus specifically on women? and (2) How does this focus on women influence different performance drivers as well as overall financial performance? The answer to these questions allows us to quantify the impact of women on the MFI's operations, but also allows us to shed light on existing gender theories and understand how the focus on women is changing in the rapidly commercialising microfinance environment.

Women and modern microfinance are linked. Since experimental schemes in Asia and Latin America in the 1970s, microfinance has been about women. Morduch (1999), among others, argues that one of the primary reasons for the success of microfinance is the targeting of women. The objective of the Microcredit Summit Campaign, which promotes microfinance, is 'to ensure that 175 million of the world's poorest families, *especially women*, receive credit for self-employment and other financial and business services' (our emphasis).¹

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Our global MFI dataset illustrates this focus on women in microfinance. In the dataset, women represent 70 per cent of microfinance customers on average,² whereas 47 per cent of MFIs focus specifically on reaching women, according to the assessments of external rating agencies.

The reasons for targeting women, however, are controversial: is it a matter of equality, to overcome the gender bias in access to finance? Is it a matter of poverty reduction, as women are assumed to contribute more to family welfare? Or is it a matter of efficiency, since women are supposed to be more profitable customers? In this study, we do not take a stand in the debate as to whether access to finance is beneficial for women and for poverty reduction. Our objective is limited to study the role of women clients in the financial performance of MFIs. Given the current criticism of microfinance as an anti-poverty tool and the growing commercialisation of microfinance, it remains to be seen whether in the future, women will continue to be the primary focus of microfinance providers. A growing number of socially oriented non-profit MFIs have increasingly shifted their focus towards for-profit objectives. The paradigm of 'financial sustainability of MFIs' implies becoming independent of donor money and therefore sustainable in the long run (Zeller and Meyer, 2002), and is recognised by many as a necessary pre-condition for the development and survival of MFIs. For women to remain a target market for commercial MFI, they must constitute a profitable market opportunity.

Many authors argue that the on-going commercialisation of microfinance will lead to a 'mission drift', in which MFIs turn to more profitable customers, that is, primarily urban, less poor, and *male* (Copestake, 2007; Cull et al., 2008). Targeting women is considered a burden to MFIs' sustainability, which could increasingly lead to the exclusion of women. Other authors put forward the opposite argument, arguing that women's discipline and docility ensure high repayment rates and that serving women therefore enhances the efficiency and profitability of MFIs (Armendariz and Morduch, 2005; Mayoux, 2011; Molyneux, 2002; Rankin, 2002; Fernando, 2006). These arguments are not necessarily contradictory: they simply reflect the fact that profitability is a matter of both repayment and operating costs and that it is likely that targeting women has contrasting effects on each aspect.

From an empirical perspective, the link between targeting women and microfinance performance has been insufficiently explored. D'Espallier et al. (2011) find that MFIs with more clients being women have significantly higher repayment rates measured through their loan portfolio in distress. However, the authors acknowledge that repayment is only one element of the MFI's profit function and that more empirical evidence on how focus on women influences both cost and income is needed. This article fills this gap by providing a rigorous worldwide empirical investigation of the consequences of deliberately focusing on women in microfinance. In line with a growing body of research on development from the providers' point of view (for example, Kang, 1990; Brownbridge and Kirkpatrick, 2000; Hartarska, 2005; Spencer and Wood, 2005; Mersland, 2009), the main purpose of this study is to understand how focusing on women affects MFI design and performance. We use a dataset compiled of information from 398 MFIs in 73 countries over 10 years to investigate which MFI characteristics are associated with a focus on women and how this focus affects the cost and income factors that together constitute the MFI's profit function.

The article provides theoretical and policy implications. In terms of theory, our analysis reassesses the specificity of women in finance that various schools of thought posit. We confirm that there are indeed gender specificities: women pay better but cost more. However, while the enhanced repayment effect seems to be driven by the intrinsic nature of women, that is, more risk averse and more cooperative behaviour, the increased cost effect is not driven by gender per se, but rather by the size of the loan and the lending method employed.

In terms of policy, our findings indicate that the evolution towards more commercial institutions should not be harmful for the outreach to women as focusing on women has zero effect on the overall financial performance of the MFI. Moreover, MFIs could benefit even more from serving women if loans offered to women and men were of equal size or if transaction costs related to small loans could be reduced (Mersland and Strøm, 2010).

This article is organised as follows. In Section II, we discuss the relevant literature and derive the main hypotheses to be tested. In Section III, we explain the dataset and the statistical methods used, and in Section IV, we report the main empirical findings. In Section V, we present conclusions and the main implications of this study.

II. Literature and Hypothesis Development

Women and Microfinance

In the history of pro-poor banking initiatives, women have not always been the centre of attention. The first initiatives of the cooperative and mutual banking movements in Europe and North America showed little interest in women. Lemire (2001) finds that the proportion of women in the cooperative movement barely reached 10 per cent. With a quarter of clients being women, mostly widows and unmarried women, eighteenth-century Irish funds were an exception, possibly because of their very small loan amounts (Hollis, 2001). Similarly, the first attempts of development banks and cooperative movements to provide credit in developing countries in the early and mid-twentieth century also showed little interest in women (Fournier and Ouédraogo, 1996).

However, over the last three decades, this attitude has changed with the development of modern MFIs, which quickly became interested in serving women. For example, the Grameen Bank's proportion of women increased from 44 per cent in 1983 to 95 per cent in 2001 (Armendariz and Morduch, 2005). How can we explain this sudden enthusiasm for women, and why do many MFIs choose to focus on women? Three main arguments are typically put forward by donors or practitioners in favour of targeting women: (1) gender equality, (2) poverty reduction, and (3) MFI efficiency (Mayoux, 2001).

Regarding gender equality, microfinance is often considered an effective tool to promote women's empowerment. By enabling women to develop or strengthen income-generating activities, microfinance is expected to increase their monetary income, control over their income, and bargaining power within the household. These effects are expected to lead to various mutually reinforcing social, psychological, and even political effects, such as higher self-esteem and self-confidence, improved status in the family and the community, increased spatial mobility, and greater visibility of women in public spaces.

Regarding poverty reduction, it is argued that compared with men, women invest their income to nurture the wellbeing of their families to a greater extent. This is echoed in empirical studies conducted throughout the world³ – a dollar loaned to a woman seems to have a greater impact on development than a dollar loaned to a man – and put forward by various donors (for example, World Bank, 2007: 165).

Finally, higher repayment rates by women should enhance MFI efficiency. As Armendariz and Morduch (2005) describe, the Grameen Bank originally focused on men but quickly decided to concentrate almost entirely on women because of repayment problems. More generally, it seems that an increasing emphasis on women in microfinance programs since the 1990s has been inspired both by evidence of high repayment rates by women and the rising influence of gender lobbies in donor agencies and NGOs (Mayoux, 1999; Fernando, 2006; Weber, 2006). According to Mayoux (2001), if gender lobbies have been able to argue for targeting women, it is primarily on the grounds of better repayment rates and the contribution of women's economic activity to economic growth.

The above discussion illustrates that many studies have advanced arguments for targeting women and have cited the consequences for microfinance providers. However, as noted by Armendariz and Morduch (2005), few of these studies are backed by empirical evidence. Existing empirical evidence generally confirms that women do indeed repay better than men (Khandker et al., 1995; Sharma and Zeller, 1997; Kevane and Wydick, 2001; D'Espallier et al., 2011), but does not explore the link with other MFI profit drivers. Historically, it is easy to understand the

intense focus on repayment rates in microfinance, because modern microfinance came as a response to failed government rural credit programs with default rates often exceeding 50 per cent (Hulme and Mosley, 1996). However, MFI financial performance is more than simply repayment; for example, it has recently been demonstrated how MFIs must decrease operating costs to ensure their focus on poor clients (Mersland and Strøm, 2010). Thus, the overall financial efficiency of targeting women is far from obvious, as it can be argued that serving women is more costly for various reasons: women borrow smaller amounts; are less mobile and less educated; may require additional services from the MFI, such as business training or health services; and may require additional monitoring. Therefore, studies aiming to assess the consequences of focusing on women must examine all of the elements from the cost and income sides that together constitute the MFI's profit function rather than focusing solely on repayments.

Women and MFI Performance Drivers

From a theoretical perspective two components of the MFI's profit function are of particular interest: repayment rates and operating costs. As far as loan repayment is concerned, several explanations as to why gender may play a role can be advanced. The gendered nature of enterprises and markets is a first explanation, mostly emphasised by economists. Under the standard neoclassical assumptions about the production function, if women have less access to capital than men, then returns to capital for women should be higher than for men. Women should thus be involved in different kinds of businesses and markets than men (Armendariz and Morduch, 2005). For instance, women's business activities often imply a quick turnover, which is more adaptable to the regular repayments demanded by most MFIs (Johnson, 2004). By contrast, seasonal and risky activities such as agriculture, which are more often a male preserve, are a poor fit for microfinance modalities (Morvant-Roux, 2011). The fact that women have fewer credit opportunities than men may also act as an incentive for repayment, in order to ensure continued access to credit (Armendariz and Morduch, 2005). Conversely, one may argue that women, on average, are poorer than their male peers and they may therefore have more difficulties in repaying. Various studies point out that women entrepreneurs tend to be overrepresented in traditional sectors with lower profits, fewer growth opportunities, and harsher competition (Phillips and Bhatia-Panthaki, 2007), which should make them less able to honour their credit contracts.

A second explanation concerns attitudes to risk-aversion, cooperative behaviour and competitive incentives. Many studies have found that women tend to be more risk averse than men when it comes to starting up a business or taking financial decisions. Todd (1996) draws on her experience in Grameen villages in Bangladesh to argue that women are more conservative in their investment strategies, and therefore have better repayment records. This argument is taken up by the World Bank in its report *Finance for All* (2007: 124). Numerous studies suggest that women are also more cautious in their financial decisions (Jianakoplos and Bernasek, 1998; Schubert et al., 1999), less opportunistic and more likely to engage in cooperative behaviour (Hartmann-Wendels et al., 2009), as well as less sensitive to competitive incentives (Gneezy et al., 2003; Croson and Gneezy, 2009). There are varied explanations for this, ranging from unequal access to information, to socio-cultural norms and learning processes. It is argued, for instance, that women's child bearing responsibilities encourage them to be more prudent and that in many cultures, risk-taking behaviours are typically male-encouraged both by education and imitation. As women are more risk adverse, they are therefore less likely to request large loans that exceed their repayment ability (Armendariz and Morduch, 2005; Phillips and Bhatia-Panthaki, 2007).

A premise of these arguments is that women are actually the ones controlling the loans; yet numerous studies show that this is far from true (Goetz and Gupta, 1996; Rahman, 1999; Kabeer, 2001; Mayoux, 2001). This leads us to a third explanation: the fear of social sanctions and social pressure, which is an enforcement mechanism very commonly used by MFIs. Psychoanalytical studies argue that women, because of their biological function, develop a

specific sense of justice and morality which draws on connectedness and relations to others rather than universal and legal rules (Gilligan, 1982; Chodorow, 1999). Anthropologists and sociologists focus on social processes and the weight of social norms in the construction of feminine morality. In many cultures, and patriarchal societies in particular, it has been observed that women are the guardians of the honour of family, lineage and clan. Chastity, modesty and discretion are female attributes that are the most frequently associated with family honour. Several studies in Bangladesh found that MFIs capitalise on local social norms of honour and shame by targeting women simply because they are more disciplined and compliant (Rahman, 1999; Karim, 2011). Karim (2011) speaks of an 'economy of shame', which draws on peer surveillance, denouncement and humiliation as enforcement mechanisms and to which women are much more receptive. Johnson (2004) in Kenya shows that informal sanctions do not work for men, while women debtors are more responsive to social and moral pressure. Moreover, in many countries there is a long history of loan waiving which often contributes to a male culture of non-repayment (Servet, 2006).

When it comes to how targeting women may influence an MFI's operating costs studies point towards differences in loan modalities between men and women. There is evidence that women often receive smaller loans, pay higher interest rates and face higher collateral requirements (Agier and Szafarz, 2010; Bellucci et al., 2010; Fletschner, 2009; Morrison et al., 2007; Treichel and Scott, 2006). The central discussion in the literature is about the origin of this gender bias. Disparate treatment may stem from fundamental differences between male and female-owned businesses, or women may receive less favourable treatment because they have insufficient equity or security, such as fewer land titles (Fletschner, 2009; Morrison et al., 2007). Their enterprises may also be smaller and younger and therefore have unproven track records, or they may be more likely to operate in retail and services, which usually requires less funding (Treichel and Scott, 2006). However, diverging treatment may also stem from discrimination. All things being equal, women may be subject to adverse treatment as a result of self-exclusion, that is, women do not dare to ask for what they are entitled to. A further cause may be gender stereotypes of financial managers and loan officers who may believe, consciously or otherwise, that women are unable to succeed as entrepreneurs because they lack leadership, autonomy, experience, decision-making capacities, and so forth (Treichel and Scott, 2006). The literature on discrimination is still scarce, as it demands extremely specific data. There is evidence however that the microfinance industry, though often considered to favour women, can be a source of gender discrimination. For instance in Brazil, Agier and Szafarz (2010) find a glass ceiling as regards to loan size: larger projects created by women are more credit rationed than comparable male projects. In Paraguay, Fletschner (2009) observes that women are not only more credit-rationed than men, but that women's rationing status is based on a different set of criteria than men's.

Finally, some authors suggest that women customers are more expensive because they require specific and possibly additional services tailored to their specific needs, which are necessarily costly (Mayoux, 2011). A gendered approach might include special financial products better adapted to women's cash flows, door-to-door services, more flexible working hours, and gender awareness training for staff.

Focus on Women and MFI Characteristics

In this subsection, we discuss various MFI characteristics that are likely to be associated with a focus on women. These characteristics will be tested in our empirical analysis.

The idea that microfinance should target women has been driven largely by international organisations, such as Women's World Banking (WWB), Microcreditsummit, USAID and the World Bank (Mayoux, 2001; Fernando, 2006). These networks and aid organisations constitute an important part of the international community's development policy and therefore value the traditionally claimed poverty reduction effect related to focusing on women. In line with this argument, we expect that MFIs that are members of an international microfinance network, like

for instance Women's World Banking or Opportunity International, would be more likely to focus on women.

A broad range of lending methodologies is followed in microfinance, such as *village banking*, *solidarity groups*, and *individual-based* lending (Sharma and Zeller, 1997; Kevane and Wydick, 2001; Mersland and Strøm, 2012). Group methodologies are typically considered 'methods for women', based on the notion that women join groups and spend time in meetings more readily, either because they are more sensitive to collective activities and social pressure as argued above or because they lack physical collateral and are required to be jointly responsible for the repayment of one another's loans (Mayoux, 2001; Armendariz and Morduch, 2005). Additionally, village banks and solidarity group lenders are generally able to reach poorer households, including women (Cull et al., 2008). Overall, we expect collective lending methods to be associated with a focus on women.

In terms of loan size, we expect MFIs that focus on women to offer smaller loans on average. As discussed above, women are more likely to receive smaller loans because of both demand and supply issues. For instance, women may request smaller loans because they are more risk averse than men, but at the same time women may be offered smaller loans because of discrimination (Agier and Sfararz, 2010).

Finally, MFIs take various legal forms, and a focus on women might be associated with the MFI's legal status and regulatory environment. For example, non-profit organisations, such as NGOs, tend to have broader objectives and governance forms that make them more likely to reach marginalised customers, such as women (Mersland, 2009). Similarly, it has been argued that mission drift occurs more in regulated MFIs (Copestake, 2007; Cull et al., 2008). We therefore expect regulated MFIs to be less focused on women.

Focus on Women and MFI Performance

How does a focus on women affect an MFI's performance? We suggest that a focus on women may impact income and cost components, which together constitute an MFI's profitability, specifically, default costs, operational costs, funding costs and portfolio income.

As discussed above, the assertion that women are good credit risks is supported by various theories. It is also put forward by microfinance advocacy networks and sponsors and has also been documented by empirical studies (for example D'Espallier et al., 2011). We therefore expect that a focus on women is associated with better repayment and consequently lower default costs.

MFIs have different options to reduce costs, such as scaling economies by extending their client base or increasing profit margins by serving existing customers with larger loans and more services. Cull et al. (2008) find that the second option is the most efficient and that transacting numerous small loans significantly increases costs. Because women are likely to receive smaller loans, we expect focus on women to be associated with higher operating costs associated with these smaller loans. Similarly, other gender-related aspects may generate additional costs associated with focusing on women. For example, lower literacy levels may require more intensive monitoring, resulting in increased personnel expenses and administrative costs. Additionally, less geographic mobility may require closer on-site monitoring, which also increases operational expenses. Overall, we expect more focus on women to be associated with higher operational costs.

Funding costs might be different for MFIs that focus on women. As argued previously, focus on women is often supported by large international development agencies involved in microfinance (Mersland et al., 2011). Access to such development networks can translate into lower funding costs. In addition, since targeting women is considered an objective for many social microfinance investors (<http://www.mixmarket.org>), MFIs with more focus on women might attract cheaper funding. We therefore expect the cost of funding to be lower in MFIs that focus on women.

Regarding income, focus on women may be associated with different interest rates charged. On the one hand, MFIs with greater focus on women may be more concerned with development impact and may therefore charge lower interest rates. Likewise, lower default and funding costs

may also result in reduced interest rates. On the other hand, it is also possible that increased transaction and monitoring costs will be transferred onto the clients, resulting in higher interest rates. Additionally, because women are more credit constrained, MFIs might use their bargaining power and charge higher interest rates. Overall, the effect that focusing on women has on an MFI's income is a priori unclear.

III. Data and Methodology

Financial and general data for this study were collected from 398 MFIs operating in 73 countries worldwide (see Appendix A). The data were extracted from rating assessment reports gathered by specialised rating agencies supported by the Rating Fund (<http://www.ratingfund2.org>). For each rating, up to ten years of data were obtained, and the ratings were performed during the period 2001–2010. No dataset is perfectly representative of the microfinance field. For example, our dataset contains relatively few mega-sized MFIs and does not cover the virtually endless number of small savings and credit cooperatives. However, rating data are considered to be among the most representative available for the microfinance industry and compared with data from the Mixmarket (www.themix.org) a large firm bias is avoided (Mersland and Strøm, 2009).

Table 1 provides a detailed description of the main variables and a number of summary statistics. The variables are divided into *general and financial variables*, variables related to *gender* and *organisational* variables. The median MFI has total assets of 2.6 million US dollars (\$), is eight years old and offers a median loan amount of \$388. The median Return on Assets (ROA) as reported by the MFI is 2.5 per cent, but after adjustments carried out by the rating agency it is –0.11 per cent which further underlines the importance of understanding how targeting women might affect the MFI's profitability. Funding costs are approximately 6.5 per cent, and the yield on the loan portfolio is 34.5 per cent.

Different variables related to *gender* are used, specifically the percentage of *women clients* and a dummy *women focus* of 1 if the MFI has a known and deliberate focus on women. This dummy variable is constructed based on information from the rating reports, in which it is indicated whether the MFI specifically focus on women. When no clear information on this variable is available in the report, a missing value is imputed. On average, 70 per cent of the clients are women, and 47 per cent of MFIs explicitly focus on women.

The variables related to *organisational structure* reveal the following: in 34 per cent of cases, the MFI is part of an international network; 28 per cent of MFIs are regulated by local banking authorities; 51 per cent are NGOs, 13 per cent are cooperatives; and 33 per cent operate as banks or non-bank financial institutions. Regarding loan methodology, 18 per cent serve their customers primarily through village banks, and 26 per cent use solidarity groups as their primary lending method. The remainder practice individual lending or a combination of lending methods. Finally, 82 per cent of MFIs specialise in financial services only, without providing additional services, such as business training or health services, and 23 per cent operate in rural areas only.

Estimation Methods

The first empirical question attempts to identify the MFI characteristics that are significantly related to a focus on women. To address this issue, we perform Ordinary Least Square (OLS) and logit analyses, where the dependent variables are the percentage of women clients, a dummy if the MFI specifically focuses on women, and a dummy if the percentage of women clients is above average. Based on the discussion in the literature review and hypothesis development section, we use a wide variety of independent variables related to international orientation, lending method, average loan size, and legal status, while controlling for other effects, such as size, age, regional and time differences.

The second empirical question attempts to analyse how a focus on women is related to the various profit drivers discussed in the hypothesis development section. To address this issue, we

Table 1. Variables and summary statistics

Variable	Definition	n	Mean	Median	St.dev.	Min.	Max.
General and financial variables							
Size	Total assets in \$1,000	1,585	6,363	2,672	1,320	19	248,000
Age	Years of experience as MFI	1,574	9.23	8	6.75	0	79
Average loan	Average loan size in \$	1,461	713	388	933	25	6,250
ROA	Financial return on assets	1,486	0.17%	2.50%	0.13	-99%	34.2%
ARO	Adjusted financial return on assets	824	-2.25%	-0.11%	0.11	-54%	19.2%
Par30	Share of the loan portfolio-at-risk (30 days or more in arrears)	1,436	6.47%	3.30%	0.10	0	97.3%
Operational expenses	Operational expenses divided by total assets	1,240	21.66%	17.40%	0.14	1.56%	100%
Cost of funds	Interests and fees on loans divided by average outstanding debt	1,366	7.53%	6.50%	0.07	0	43%
Portfolio yield	Income from lending divided by average outstanding loans	1,483	38.95%	34.5%	0.18	3.25%	94.35%
Gender variables							
Women clients	Percentage of clients being women	761	70.17%	70%	0.25	0	100%
Women focus	1 if focus deliberately on women	1,561	0.47	0	0.50	0	1
Organisational variables							
International network	1 if part of international network	1,561	0.34	0	0.47	0	1
Regulated	1 if regulated by authorities	1,534	0.28	0	0.47	0	1
NGO	1 if legal status is NGO	1,573	0.51	1	0.50	0	1
COOP	1 if legal status is cooperative	1,573	0.13	0	0.34	0	1
Bank and NBF	1 if legal status is bank or non-bank financial institution	1,573	0.33	0	0.47	0	1
Village bank	1 if village banking	1,583	0.18	0	0.38	0	1
Solidarity groups	1 if solidarity groups	1,583	0.26	0	0.38	0	1
Finance only	1 if the MFI provides financial services only	1,577	0.82	1	0.38	0	1
Rural	1 if the MFI operates in rural areas only	1,348	0.23	0	0.41	0	1

Notes: This table provides a description and a number of summary statistics for the main variables used throughout this study. Variables are categorised into general and financial variables, variables related to gender and organisational variables.

employ Hausman-Taylor (HT) regressions,⁴ where the dependent variables are the various profit drivers, namely portfolio income, operational costs, funding costs and default costs. All dependent variables are made relative to the size of the portfolio. The independent variables constitute the different gender variables, and a number of controls taken from prior performance studies conducted by Hartarska (2005) and Mersland and Strøm (2009). In line with this research, we include firm-specific controls (for example, size, age, regulation, legal status), contextual controls (for example, GDP per capita, heritage foundation index), and regional dummies. The validity of the instruments employed in the HT-procedure is verified through the Sargan-Hansen test of over-identifying restrictions that tests the null-hypothesis that instruments are valid. Robustness checks for RE and IV regressions have been carried out to see whether results are driven by the estimation method.

IV. Empirical Results

Focus on Women and MFI Characteristics

Table 2 presents the results for MFI characteristics that are associated with a focus on women. Panel A presents univariate differences (mean comparison t-tests) between MFIs that focus on women and MFIs that do not, whereas panel B presents logit and OLS regressions in which the gender variables are regressed against MFI characteristics, controlling for other factors. As seen from panel A, there are significant univariate differences between those MFIs that focus on women and those that do not. MFIs that focus on women more often are part of an international network and make use of collective lending methods, such as village banking and solidarity groups. They are less often regulated by banking authorities and less often specialise in financial services only. They are more often NGOs and less often banks or non-bank financial institutions, and they offer smaller loans. The profit drivers explored indicate that they have higher operational expenses, lower portfolio at risk and similar portfolio yield and funding costs. Overall financial performance measured with ROA and AROA show no significant univariate differences.

Panel B examines the MFI characteristics related to a focus on women in a multivariate setting, that is controlling for other MFI factors that may influence gender focus. The results largely mimic the univariate analyses. A focus on women is significantly related to international orientation, collective loan methods, lower average loans and non-commercial legal status. These results hold regardless of the addition of regional and time dummies (columns 2, 4 and 6). Likewise, as seen from columns 3 through 6, the same results emerge regardless of the gender variable used.

The finding that commercial and regulated MFIs serve women to a lesser extent than do non-commercial non-regulated MFIs could warrant fear of the current commercialisation of the industry and the transformation of NGOs into regulated commercial banks. However, in unreported analyses, we find that although they serve relatively fewer women, still 59 per cent of clients in regulated MFIs and 60 per cent of clients in non-NGOs are women. Thus, though regulated and commercial MFIs have relatively fewer women as clients, they too seem to have a bias towards serving women.

Focus on Women and Profit Drivers

Panel A of Table 3 summarises the HT-regressions from regressing the profit drivers on the gender variables, controlling for other firm-specific and contextual factors. There is a significant relationship between operational expenses and a focus on women, regardless of the gender variable analysed. This means that focusing on women is significantly related to higher operational expenses in line with the univariate differences observed. Similarly, focusing on women significantly reduces default costs measured by the proportion of the portfolio that is in

Table 2. Focus on women and MFI characteristics

	Women focus = 1		Women focus = 0		t-stat	
	(1)	(2)	(3)	(4)		
Panel A: t-tests						
International network	0.44			0.23	-4.86***	
Village bank	0.31			0.06	-13.68***	
Solidarity groups	0.30			0.21	-4.68***	
Regulated	0.18			0.40	4.96***	
Finance only	0.75			0.88	3.49***	
Rural	0.27			0.28	-0.07	
NGO	0.66			0.37	-6.58***	
Bank and NBF	0.20			0.45	5.76***	
Average loan	416			1,068	7.51***	
Operational expenses	0.21			0.18	-2.85***	
Cost of funds	0.079			0.082	0.42	
Par30	0.05			0.07	2.01**	
Write-off rate	0.02			0.01	0.90	
Portfolio yield	0.36			0.39	-1.42	
ROA	0.004			0.01	0.93	
AROA	0.093			-0.053	-0.60	
Panel B: characteristics women focus						
	Women focus = 1		Women clients above average		Women clients	
	(1)	(2)	(3)	(4)	(5)	(6)
Organisation	0.97***	1.18***	0.38**	1.18***	0.03**	0.05***
Regulated	-0.63	-0.71	-0.14	-0.37	-0.02	-0.04
Village bank	1.21***	1.26***	3.26***	3.42***	0.21***	0.19***
Solidarity groups	0.51***	0.64***	1.18***	1.71***	0.12***	0.14***
Finance only	-0.14	-0.02	-0.14	-0.78	-0.01	-0.02
Average loan	-0.63***	-0.50***	-0.56***	-0.56***	-0.08***	-0.07***
Rural	-0.29	-0.26	-0.84	-0.24	-0.02	-0.01
dumNGO	0.66***	0.64***	0.05*	0.21**	0.05***	0.03**
InTA	0.04	0.01	0.10	0.29	0.01	0.01
Age	-0.01	-0.02*	0.04	0.01	0.01	0.01
Time dummies	no	yes	no	Yes	no	yes
Regional dummies	no	yes	no	Yes	no	yes
Method/model stats	logit	Logit	logit	Logit	OLS	OLS
N	1,178	1,178	607	607	607	607
Wald χ^2	38***	276***	196***	178***	73.23***	36.67***
Pseudo R ²	0.24	0.27	0.32	0.39	0.47	0.52

Notes: This table analyses which characteristics are related to a focus on women by means of univariate mean-comparison t-tests (panel A) and LOGIT and OLS regressions (panel B). *, **, and *** denote statistical significance at the 10, 5, and 1 per cent significance levels, respectively.

Table 3. Focus on women and profit drivers

Panel A: drivers	Portfolio yield			Operational expenses			Funding costs			Default costs		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Gender variables												
Women focus = 1	0.009	0.122		0.017*	0.112***		0.001	0.028		-0.015***		
Per cent women clients			0.018			0.031**			0.006			-0.012**
Women clients above average												
Firm-specific controls												
Lnta	-0.008	-0.009	-0.014*	-0.061***	-0.074***	-0.075***	0.007**	0.008***	0.008**	-0.006**	-0.022**	-0.021**
Age	0.010***	0.013***	0.013***	0.015***	0.205***	-0.021***	0.001	0.001	0.001	0.006	0.004	0.005
Regulation	-0.086***	-0.104***	-0.106***	-0.017	-0.004	-0.006	-0.001	-0.019	0.019	-0.005	0.001	0.002
DumNGO	0.030	-0.019	-0.016	0.041*	0.031*	0.036*	0.004	0.008	0.009	-0.012	-0.006	-0.006
Contextual controls												
GDP per capita (natural log)	-0.072***	-0.104***	0.103***	-0.059**	-0.062*	0.062*	0.001	0.001	0.001	0.001	0.001	0.001
Heritage index	0.001	0.001	0.001	-0.001	-0.004	-0.004	-0.001	-0.001	-0.001	0.001	-0.001	-0.001
Model statistics												
N	1,370	654	654	1,151	583	583	1,263	615	615	1,312	633	633
Wald χ^2	53.56***	60.84***	59.83***	101.01***	63.71***	92.16***	60.25***	41.17***	40.29***	19.14***	22.10***	22.06***
Sargan-Hansen statistic	4.38	5.14	5.04	1.01	0.85	0.50	5.13	4.63	4.013	0.85	0.65	0.70
Sargan-Hansen p-value	0.18	0.16	0.17	0.79	0.83	0.91	0.17	0.19	0.19	0.83	0.84	0.87
Panel B: costs split out												
				Staff costs						Administrative costs		
Gender variables				(1)	(2)	(3)	(4)	(5)	(6)			
Women focus = 1		0.033*										
Per cent women clients			0.018	0.043**			0.025			0.018		
Women clients above average					0.024*							0.010

(continued)

Table 3. (Continued)

Panel B: costs split out	Staff costs			Administrative costs		
	(1)	(2)	(3)	(4)	(5)	(6)
Firm-specific controls						
Lnta	-0.035***	-0.038***	-0.038***	-0.032***	-0.039***	-0.039***
Age	0.009***	0.012***	0.013***	0.007***	0.009***	0.009***
Regulation	-0.010	-0.011	-0.011	0.001	0.006	0.006
DumNGO	0.024**	0.025**	0.017**	0.009	0.005	0.007
Contextual controls						
GDP per capita (natural log)	-0.012	-0.027	-0.028	-0.016	-0.020	-0.021
Heritage index	-0.001	-0.002	-0.002	0.001	0.001	0.001
Model statistics						
N	1312	668	668	1315	668	668
Wald χ^2	150.12***	88.12***	87.93***	112.30***	63.77***	62.66***
Sargan-Hansen statistic	1.71	2.15	1.91	0.51	1.09	0.83
Sargan-Hansen p-value	0.63	0.54	0.58	0.91	0.77	0.84

Notes: Hausman-Taylor performance regressions that analyse whether focus on women is related to different profit drivers after controlling for firm-specific effects and contextual influences. In panel B, operational expenses are further separated into staff costs and administrative costs. Regional dummies are always included in the regressions. *, **, and *** denote statistical significance at the 1, 5, and 10 per cent levels, respectively.

Table 4. Higher costs and better repayment driven by gender or nature of the loan?

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Operational expenses						Default costs					
Gender variables												
Women focus = 1	0.017*	-0.011										
% women clients			0.112***	0.081								
Women clients above average					0.031**	0.008						
Firm-specific controls												
Lnta	-0.061***	-0.061***	-0.074***	-0.081***	-0.075***	-0.082***	-0.006**	-0.014***	-0.022**	-0.034***	-0.021**	-0.034***
Age	0.015***	0.016***	0.205***	0.019***	-0.021***	-0.020**	0.006	0.001	0.004	0.002	0.005	0.002
Regulation	-0.017	-0.012	-0.004	-0.002	-0.006	-0.001	-0.005	-0.001	0.001	0.008	0.002	0.006
DumNGO	0.041*	0.034*	0.031*	0.019	0.036*	0.021	-0.012	-0.058	-0.006	-0.019	-0.006	-0.019
Nature of the loan												
ln(average loan size)		-0.016*		-0.008		-0.009		0.010*		0.007		0.007
DumGROUP		0.029*		0.022		0.031*		-0.013*		-0.012		-0.012
Contextual controls												
GDP per capita	-0.059**	-0.056**	-0.062*	-0.054*	0.062*	0.050*	0.001	0.001	0.001	0.001	0.001	0.001
Heritage index	-0.001	-0.001	-0.004	-0.004	-0.004	-0.004	0.001	0.001	-0.001	-0.001	-0.001	-0.001
Model statistics												
N	1151	1101	583	551	583	551	1312	1259	633	595	633	595
Wald χ^2	101.01***	118.75***	63.71***	64.79***	92.16***	64.14***	19.14***	19.20***	22.10***	14.79***	22.06***	14.38***
Sargan-Hansen statistic	1.01	5.15	0.85	3.00	0.5	3.31	0.85	2.81	0.65	0.91	0.75	0.93
Sargan-Hansen p-value	0.79	0.27	0.83	0.55	0.91	0.51	0.83	0.58	0.84	0.92	0.87	0.91

Notes: Hausman-Taylor performance regressions that analyse whether higher operational expenses and lower default costs are driven by gender or the nature of the loan, by taking up covariates from the LOGIT as controls in the performance regressions. Regional dummies are always included in the regressions. *, **, and *** denote statistical significance at the 1, 5, and 10 per cent levels, respectively.

distress. This result confirms earlier research and the univariate results that women are associated with better repayment rates and therefore have lower default costs.

As for the other profit drivers, we find no significant relationship with funding costs or with portfolio yield also in line with the univariate statistics. This means that contrary to expectations, there seems to be no lower-cost funding available for MFIs that focuses on women, nor is there any evidence that MFIs focusing on women charge different interest rates and therefore have different portfolio yields. Thus, two contradicting effects are at play. On the one hand, having more women clients reduces the default costs, while on the other hand, focusing on women increases operational expenses.

The finding that focusing on women increases operational expenses warrants additional analysis. In panel B, we further investigate the nature of the costs that occur when focusing on women that is staff costs versus administrative costs. The general conclusion from this analysis is that lending to women is associated with both higher staff costs as well as administrative costs.

In Table 4 we analyse whether the higher operational expenses and lower default costs can be attributed to intrinsic gender differences or are rather driven by differences in the nature of the loan. By doing so, we implicitly test the assertion from the literature that differences in repayment can be attributed to intrinsic gender differences, whereas differences in costs are attributed to the type of loans that are offered. We therefore take up the average loan size and a dummy for group-lending (*dumGROUP* is 1 if the loan is distributed through groups or village banks) as additional controls in the performance regressions. By doing so, we control for all factors identified as being related to lending to women from the OLS-LOGIT analysis in Table 2.

As can be seen from columns 1 to 6, the coefficients for gender become insignificant for operational expenses, when controlling for the nature of the loan. This suggests that, holding constant the loan amount and the way the loan is offered to the client, there is no remaining cost difference in lending to women. Put differently, the higher costs for lending to women are indeed not driven by intrinsic gender differences, but rather by the nature of the loan. Because women receive smaller loans and get the loans through group-lending methods, higher operational costs are observed. The difference between men and women disappears when differences in the nature of the loan are taken into account.

As can be seen from columns 7 to 12, focus on women is associated with lower default costs even when taking into account the nature of the loan by controlling for average loans and the group-dummy. This suggests that women repay better than men and, contrary to the operational costs, this seems to be driven by intrinsic gender differences and cannot merely be explained by the nature of the loan.

Focus on Women and the Overall Financial Performance

Table 5 summarises the relationship between focusing on women and overall financial performance proxied with ROA (columns 1 through 6) and AROA (columns 7 through 12). Focusing on women is again analysed through the women focus dummy, the proportion of women clients and a dummy of whether the proportion of women clients is above average. We consecutively control for the nature of the loan to see whether results are driven by gender per se, or by the nature of the loans offered. Clearly, there is no significant relationship between a focus on women and overall financial performance in terms of ROA and AROA. Focusing on women does not enhance the overall financial performance of the MFI. Thus, the economic effect from the better repayment rates is not large enough to transform into better overall financial performance for the MFI.

V. Conclusions and Discussion

This study provides detailed empirical evidence on the focus on women in the microfinance industry and its consequences for microfinance providers. Although many studies document that

Table 5. Focus on women and bottom-line financial performance

Financial performance	ROA	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
								AROA					
Female focus	-0.005	0.009	-0.021	-0.021	-0.021	-0.006	-0.009	0.001	0.027	0.015	0.028	0.049	0.065
Female focus = 1													
Per cent female clients													
Female clients above average													
Firm-specific controls													
lna	0.047***	0.043***	0.068***	0.073***	0.068***	0.071***	0.071***	0.102***	0.061***	0.152***	0.080***	0.151***	0.075***
Age	0.003	0.003	-0.004	-0.003	-0.004	-0.003	-0.003	0.002	0.009*	-0.014	-0.001	-0.013*	0.002
Regulation	-0.018	-0.018	-0.034*	-0.013*	-0.033*	-0.030**	-0.030**	-0.061**	-0.041	-0.022	-0.004	-0.028	-0.009
DumNGO	0.022	0.026*	0.007	0.013	0.005	0.011	0.011	0.018	0.034*	0.015	0.065*	0.035	0.077*
Nature of the loan													
ln(average loan size)		0.018*		-0.019*			-0.019*		0.026**		0.023*		0.019*
DumGROUP		0.001		-0.031			-0.032		0.007		-0.032		-0.021
Contextual controls													
GDP per capita (natural log)	0.008	0.004	0.015	0.006	0.015	0.003	0.003	0.004	0.006	0.006	0.004	0.004	0.005
Heritage index	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.001	0.001	0.002	0.001	0.001	0.001
Model statistics													
N	1366	1302	656	614	656	614	614	771	746	437	421	437	421
Wald χ^2	152.34***	170.03***	87.14***	85.13***	86.00***	84.70***	84.70***	135.92***	108.15***	105.69***	57.77***	105.90***	56.60***
Sargan-Hansen statistic	5.99	9.06	1.74	2.82	1.74	2.74	2.74	3.58	2.85	4.96	5.74	5.41	7.08
Sargan-Hansen p-value	0.17	0.11	0.62	0.72	0.62	0.73	0.73	0.31	0.72	0.17	0.33	0.14	0.17

Notes: Random effects performance regressions that analyse whether focus on women is related to bottom-line financial performance measures ROA and AROA after controlling for firm-specific effects as well as contextual influences. *, **, and *** denote statistical significance at the 1, 5, and 10 per cent levels, respectively.

MFIs do indeed favour women (Mayoux, 1999; Kabeer, 2001; Armendariz and Morduch, 2005) and that these MFIs normally have higher repayment records (Kevane and Wydick, 2001; D'Espallier et al., 2011), we know of no empirical studies that have rigorously studied in a global context the primary MFI characteristics associated with a focus on women and its effects on an MFI's various profit drivers. This article directly responds to D'Espallier et al. (2011: 772), who recommend that further research should 'go beyond the gender-repayment relation and look into how focusing on women can influence direct MFI outcomes such as cost structures, profitability, funding structures and MFI governance'. We explore which MFI characteristics are associated with a focus on women and how this focus can affect different income and cost elements that together comprise the MFI's profit function. We empirically investigate the explored relations in a large global dataset of 398 MFIs active in 73 countries worldwide using logit and OLS regressions as well as Hausman-Taylor performance regressions.

We find that a focus on women is significantly related to international orientation, collective lending methods, smaller loans and non-commercial legal status. With respect to profit drivers, we find that a focus on women is significantly related to increased operational expenses in the form of both staff costs as well as administrative costs. However, these increased costs associated with lending to women are not driven by gender per se, but rather by the nature of loans, that is smaller and more often delivered through group lending. We also find that lending to women is associated with lower default risk, an effect that remains statistically significant even after controlling for the nature of loan. This suggests that enhanced women repayment is driven by intrinsic gender differences and cannot simply be explained by the way loans are delivered to women. With respect to the other profit drivers that make up the MFI's profit function, that is portfolio yield and funding costs, we find no significant differences between lending to men and women.

When estimating the effect on the MFIs overall financial performance, we find no difference between MFIs focusing on women and those who do not. This means that MFIs focusing on women are not able to translate the lower default costs into better financial performance. This finding indicates that although significant, the overall economic effect of the lower default cost in MFIs focusing on women is rather small, confirming D'Espallier et al. (2011).

Our findings are confirmed both univariately and multivariately and hold regardless of whether gender focus is measured through the proportion of clients being women, through a dummy on whether the MFI serve more women than average, or through a dummy assessed by MFI raters of whether the MFI explicitly focus on women. The multivariate analyses are also robust with the inclusion of firm-specific and contextual controls and the inclusion of time and regional dummies. Finally, robustness checks for RE and IV-regressions suggest that the results are not driven by estimation method.

We believe this article brings forward a number of interesting implications. In terms of theory, our analysis provides some answers as to the gendered dimensions of microfinance, while at the same time contributes to a wider debate on the relationships between women and finance. Our findings suggest that gender specificities do exist: women pay better and cost more. They cost more, however, not because they are women but because they are served differently, and more precisely because they receive smaller loans and group loans.

Then we observe that regulated and more commercial MFIs, such as banks and non-bank financial institutions, serve women to a lesser extent than do non-regulated, non-profit NGOs. This finding could warrant fear that the commercialisation of microfinance may be incompatible with MFIs' social mission, including a gender mission. However, our findings also indicate that focusing on women, even if they receive smaller loans than men, does not harm an MFI's profitability. Regardless of equality issues, serving women can be a good business strategy for commercially oriented MFIs given that repayment is maximised and operational costs are under control. Certainly, it is normally inadvisable for any business to not target women (or men), who constitute half of the population.

The finding that women receive smaller loans so operating costs increase should motivate MFIs and policy-makers to address the cost structures of the microfinance industry. If MFIs that

focus on women were better able to control transaction and monitoring costs related to smaller loans, the enhanced repayment effect could become an important advantage by making serving women an even better business strategy for MFIs. In this respect, our results seem to be in line with those of Mayoux (2011) who argues that the increased commercialisation of microfinance is not necessarily a threat in terms of gender. Commercialisation, together with recent advances in technology, could also lead to reduced transaction costs, which could allow women increased access to financial services. This idea is also in line with Mersland and Strøm (2010), who argue that it is not primarily the search for increased profitability that causes MFIs to move away from serving the poor, but rather it is the high cost involved in small transactions. Thus, the best way for MFIs to avoid mission drift is to lower their costs and thereby make it more profitable to serve poorer customers.

Our research can be extended in several directions. First, questions of repayment and MFI performance should not overshadow the more fundamental issue of the wellbeing of women. It is now widely acknowledged that high repayment rates do not necessarily mean improved welfare for clients, which is particularly true for women. Microfinance can contribute to women empowerment but can also lead to the feminisation of debt (Mayoux, 2001).

Second, we do not know *why* women receive smaller loans than men. For example, we do not know whether it is related to discriminatory practices by the MFI or whether it is a specificity of women's demand or rather driven by contextual issues. More research is needed on this topic in order to identify the reasons for women's access to smaller loans. If discrimination proves a factor, measures should be taken to counter stereotyping and prejudice, which would call for awareness campaigns and gender training for MFI staff. If self-exclusion is a cause, information and awareness-raising for women themselves are needed to convince them that they have rights they can assert. If it appears that loan size reflects fundamental differences between male and female loan demands, then research should focus on identifying the exact nature of these differences: do they reflect unequal access to property and inheritance, labour market segmentation, excessive domestic obligations, and so forth? Identifying the relative importance of each factor can then be used as a way of prioritising policy interventions which may go far beyond microfinance.

Third, in this study focus on women has been measured through the proportion of clients being women, a dummy of whether the MFI serves more women than average, and a dummy taken from the rater's assessment of whether women are a direct target group for the MFI. Future research could aim to analyse how MFIs practise their focus on women and identify different approaches of reaching out to women.

Finally, our findings are based on an aggregate global analysis, which means that the relationships identified hold *on average* or *across* the worldwide sample that we studied. Although women are generally more financially constrained than men, it would be simplistic to consider women as a homogeneous category (Johnson, 2005). Norms and practices related to women's access to markets, money and finance are highly variable (Johnson, 2004; Guérin, 2011), and it would be interesting to study the observed relationships in detail within different regions and cultural settings.

Notes

1. See <http://www.microcreditsummit.org>.
2. This figure is similar to what is found in earlier literature (see, for example, Cull et al., 2007; Daley-Harris, 2007).
3. See, for example, Chant (1985), Haddad and Hoddinod (1995), Kabeer (1997), Senauer (1990), and Thomas (1990).
4. The Hausman-Taylor approach is essentially an instrumental variables approach that fits RE models in which some of the covariates may be correlated with the unobserved institution-specific effect μ_i (Hausman and Taylor, 1981). We prefer this method over traditional Random-Effects models (RE) because it takes into account the endogenous nature of the covariates and because a Hausman-specification test does not support the null-hypothesis that the RE provides a consistent and efficient estimator. As a further robustness check we re-ran analyses using RE as well as an IV regression where the gender variables were instrumented by the MFI characteristics. These robustness checks yield similar results and are not reported in the results section.

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