



**HAL**  
open science

## Measuring Social Performance in Social Enterprises: A Global Study of Microfinance Institutions

Leif Atle Beisland, Kwame Ohene Djan, Roy Mersland, Trond Randøy

### ► To cite this version:

Leif Atle Beisland, Kwame Ohene Djan, Roy Mersland, Trond Randøy. Measuring Social Performance in Social Enterprises: A Global Study of Microfinance Institutions. *Journal of Business Ethics*, 2021, 171 (1), pp.51-71. <10.1007/s10551-019-04417-z>. <hal-05221033>

**HAL Id: hal-05221033**

**<https://hal.science/hal-05221033v1>**

Submitted on 14 Nov 2025

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire HAL, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



HAL Authorization

# ***Measuring Social Performance in Social Enterprises: A Global Study of Microfinance Institutions***

Published as : Beisland, L.A., Djan, K., Mersland, R. & Randøy, T. (2020), "Measuring Social Performance in Social Enterprises: A Global Study of Microfinance Institutions", Journal of Business Ethics.

<https://doi.org/10.1007/s10551-019-04417-z>

ORCID (Roy Mersland): 0000-0002-6683-2737

Leif Atle Beisland (University of Agder, Norway) #

Kwame Ohene Djan (University of Agder, Norway)

Roy Mersland (University of Agder, Norway)

Trond Randøy (University of Agder, Norway)

# Corresponding author

E-mail: [leif.a.beisland@uia.no](mailto:leif.a.beisland@uia.no)

**Key Words:** Social rating, Microfinance rating, Microfinance institution, Ethical finance, Non-profit organizations, Social performance, Poverty alleviation.

# Measuring Social Performance in Social Enterprises: A Global Study of Microfinance Institutions

## Abstract

Social enterprises in the microfinance industry need to adhere to both financial and social demands. Critics argue that there is a mission drift away from the social mission, and this has motivated the introduction of social rating agencies to strengthen the business ethics of microfinance institutions (MFIs). Using a global dataset of 204 socially rated MFIs from 58 countries, we assess the factors that drive the social performance ratings of MFIs. Overall our results show that social ratings of MFIs are significantly related to financial performance, greater outreach especially in rural areas, well-defined social objectives, staff commitment, service quality and an enhanced customer service. We observe that various rating agencies attach different importance to each of the social indicators. The public policy implication is that social rating agencies need to become more transparent, to reduce the information asymmetries between heterogenous socially motivated investors and the focal MFI.

## 1. Introduction

Social enterprises have recently attracted significant public attention (e.g., World Economic Forum 2019<sup>1</sup>) as well as research interests (e.g., Hoyos and Angel-Urdinola, 2017; Banard, 2019). Such enterprises are commonly defined as organizations with an explicitly dual mission of both financial performance and social performance (Mair and Marti, 2006, 2009). Whereas the first dimension is well established in the literature in accounting and finance, the second constitute a research gap. Therefore, this study assesses the factors that drive social performance rating scores assigned to microfinance institutions (MFIs). We argue that this research gap is particularly important to address in order to assess ethical decision-making in social enterprises, which has been called for by business ethics scholars (e.g., Bull and Ridley-Duff, 2018).

An MFI is a kind of social enterprise that provides banking services to economically poor people and microenterprises. Given that basically no microfinance institution today is all donor-based, staying financially sustainable is a prerequisite for long-term survival. Thus, performance assessments of MFIs are conducted along financial and social dimensions (Battilana and Dorado 2010). However, in contrast to

---

<sup>1</sup> <https://www.weforum.org/agenda/2019/02/social-entrepreneurs-in-the-spotlight-at-davos-2019/>

financial performance, social performance is a loosely defined concept that is difficult to assess in practical terms (Copestake 2007). Such assessments pose a challenge to the industry, given that key stakeholders, including donors, providers of subsidized debt, and socially oriented investors, are naturally concerned about the social performance of MFIs (Brau and Woller 2004). Due to the complexity of making social performance assessment, many stakeholders and researchers have resorted to the use of simple proxies, such as the size of the average loan (assuming that small loans go to poor people) (Armendáriz & Szafarz, 2011). We see a need to move the social performance issue one step forward by assessing the relation of such simple proxies with more elaborate social performance scores assigned by the specialized microfinance rating agencies. Thus, we study what drives MFI social performance scores, and whether commonly used proxies for social performance in academic research actually leads to a higher social performance score by the rating agencies. Hence, we set out to study whether the academic literature is “in touch” with practitioners’ initiatives to assess MFIs’ social performance.

Another motivation for this study is that policy makers and industry observers increasingly raise concerns about the ongoing commercialization of the industry (D’Espallier et al. 2017a) and highlight the need to protect the original social objective of microfinance (Kar 2013). The recent introduction of social performance ratings, conducted by specialized and independent microfinance rating agencies, is therefore a major step forward, particularly because there is no obvious and generally accepted main metric for assessing social performance. The introduction of these social ratings can be viewed as a market signaling mechanism (e.g., Akerlof, 1970) in order to reduce asymmetric information between the microfinance capital providers (investors or donors) and the MFI decision-makers. Furthermore, from the standpoint of the practitioner, the policy maker, as well as the academic, there is a need to understand and decompose what a social performance rating reflects. Specifically, what information does a given score convey about the different aspects of social performance?

According to the Social Rating Guide, jointly published by the four leading rating agencies offering social performance ratings of MFIs, a social performance rating represents an expert view of the social performance of a financial institution and the extent to which the institution’s declared social goals are in

line with recognized social values (Clark and Sinha 2013). The social values of an MFI may include “increasing sustainable access to financial services to poorer and excluded people, improving the quality and appropriateness of services, creating benefits for clients, and implementing robust client protection measures” (Clark and Sinha 2013, p. 1). Other social values concern the institution’s responsibility to the staff, the community, and the environment (Clark and Sinha 2013; Gutiérrez-Nieto et al. 2016). However, whether these “values” are reflected in the score given to an MFI has so far not been studied with academic rigor.

Moreover, in general terms, the study contributes to the growing ethical literature on social enterprises and microfinance (Hudon et al. 2018). As typical social enterprises, MFIs apply market tools to solve a basic social problem of financial inclusion (Battilana and Dorado, 2010; Cobb et al., 2016). Recent reports of exorbitant interest rates and excessive profitability have raised a ‘red flag’ of possible mission drift among several leading industry players (Augsburg and Fouillet, 2010, Hudon et al. 2018). Besides, as the microfinance industry has come of age we have observed an influx of profit-oriented investors and several MFIs have transformed into commercial bank while claiming that they maintain their social *raison d'être*. s (D’Espallier et al 2017a). Meanwhile, as Daskalaki et al. (2015) argue, new forms of organizing and organizations represent social transformations in the way we co-constitute new social realities. Thus, our study is relevant as it analyses what constitutes good social performance in contemporary MFIs as conveyed in the microfinance social rating scores.

In order to assess social performance in social enterprises we use hand-collected data on 204 rated MFIs operating in 58 emerging markets around the world. Overall, the results of the pooled sample suggest that the best social performers are the MFIs serving more clients, treating clients responsibly and having well-defined social objectives, staff members committed to achieving social goals, and high-quality products that meet clients’ needs. Generally, the rating agencies seem to adhere to their principles for social rating. On average, the social performance scores reflect the extent to which MFIs implement the practices prioritized by the rating agencies in their Social Rating Guide (Clark and Sinha 2013). Whereas the traditional metrics for social performance (Schreiner, 2002), both number of clients and proportion of rural

clients are positively related to social performance scores. However, the results are not so clear-cut for average loan size, the percentage of female clients and portfolio yield. Specifically, MFIs that provide smaller average loans, the most commonly used social performance proxy in research (Armendariz and Szafarz 2011), do not necessarily get higher social performance scores. Moreover, having a greater percentage of female clients or a lower interest rate were found to be weakly related to social performance scores. However, a repeated analysis based on subsamples split according to rating agencies reveals that the rating agencies differ with respect to the weight that is attached to both loan size and percentage of female clients. Therefore, we cannot conclude that average loan size and clients' gender are not important to social performance scores, although our results indicate that these metrics are cruder proxies for social performance than is assumed in conventional microfinance research. Moreover, our results illustrate that the rating of social enterprises like MFIs is still not a standardized and uniform exercise across different rating agencies.

The rest of the paper is organized as follows. Section 2 describes the research background, the theoretical framework, and the research hypotheses. Section 3 presents the research design and the data description. The empirical results are presented and discussed in Section 4. Section 5 summarizes and concludes the study.

## **2. The Research Background, Theoretical Framework, and Hypotheses**

### ***2.1 The Microfinance Industry, Social Mission, and Mission Drift***

Modern microfinance was introduced as a useful tool to bridge the poverty gap by providing banking services to poor people and their income-generating activities (Postelnicu and Hermes 2016; Morduch 1999). From its inception in the 1970s, microfinance thrived through nongovernmental organizations (NGOs) that were funded, mainly, by donations from public and private individuals (Servin et al. 2012). Today, different international sources, including multilateral development organizations (e.g., World Bank, Inter-American Development Bank, Asian Development Bank, the EU, and the UN) and international

private debt and equity providers (through microfinance investment vehicles (MIVs)), provide financial resources to MFIs (Briere and Szafarz 2015; Symbiotics 2016).

As the industry matures, concerns have been raised as to whether MFIs are being coerced to abandon their original social mission (Dichter and Harper 2007). In their global study Mersland and Strøm (2010) did not find evidence of mission drift on average in the industry, however they pointed out that both the cost structure of an MFI as well as its profit motive may lead to mission drift for individual MFIs. This argument was recently further developed by Mersland et al. (2019) in their study of individual MFI compliance with its own social mission statement.

Indeed, in the past two decades, the industry has witnessed a series of events that have drawn the attention of practitioners, investors, and researchers to the phenomenon of increased commercialization and possible mission drift in the microfinance industry. In fact, ever since PRODEM, a Bolivian nongovernmental MFI, transformed into shareholder-owned BancoSol in 1992, the issue of mission drift has been high on the agenda of the microfinance industry (Beisland et al. 2017). Another such event is the initial public offering (IPO) of Banco Compartamos in Mexico, which made a few private individual multimillionaires (Rosenberg 2007). The issue of mission drift was further highlighted by the 2010 infamous microfinance crisis in the province of Andhra Pradesh in India, where the lack of transparent interest charges, irrational lending growth leading to client overindebtedness, and aggressive collection methods contributed to multiple suicides among microfinance clients (Mader, 2013). The microfinance crisis in Andhra Pradesh was in sharp contrast to the tremendous commercial success a few years earlier of the IPO by the Indian SKS Microfinance. SKS was transformed from an NGO to a non-bank financial institution in 2007 (Mader, 2013). On the back of the extreme growth of microfinance in India was the liberalization of the Indian banking sector in the late 1990s. At an increasing rate, private microfinance investors capitalized on the huge demand for such loans. Simultaneous with the Andhra Pradesh crisis, Augsburg and Fouillet (2010) identified the tendency by political actors to use microfinance as a *vote buying* mechanism rather than one of poverty alleviation. Subsequently, we argue that the microfinance industry could no longer be considered to be mostly altruistic, which had dominated the debate when Muhammad

Yunus received the Nobel peace prize in 2006.

Generally, the move toward commercialization has created a dichotomy in the microfinance movement between the poverty alleviation paradigm and the financial self-sustainability paradigm (Hudon and Sandberg 2013; Morduch 2000). Whereas the *welfarists* claim that the role of microfinance is to assist the poor and therefore financial sustainability of the MFI should be a secondary issue (Hulme and Mosley 1996), the *institutionalists* claim that MFIs should not be dependent on subsidies but rather focus on assuring healthy profits, cost efficiency, and scale economies in order to attract investments and enhance outreach (Morduch 2000). Practically, most MFIs claim to be neither welfarists nor institutionalists but rather to adhere to a *double bottom-line* paradigm focused on both financial *and* social objectives. Balancing these objectives is challenging due to their trade-off. Serving economically poor clients with small loans is naturally costlier than serving not-so-poor clients with larger loans (Hermes et al. 2011). Thus, the measurement and monitoring of MFIs' performance has become increasingly important not only for the MFIs themselves but also for their stakeholders, like donors, investors, policy makers, and the general public.

We acknowledge that investors', as well as donor's motive for microfinance investments is rather complex, and a parallel could be drawn from the behavioral finance research on investment behavior (e.g., Benabou & Tirole, 2010). For example, one could consider to what extent social or responsible investments are driven by intrinsic (truly altruistic) motives, or by more extrinsic motivations (related to reputation, regulations etc.). The high number of prizes (with the Nobel prize being the ultimate) given to various microfinance entrepreneurs, and even to a financial institution (Grameen Bank in Bangladesh), might suggest that intrinsic motivation has been the main a motive for both the establishment and the investments in the industry. However, the introduction of formal rating of social performance and the push from institutional investors to consider such factors, suggest that extrinsic motivation is becoming the main driver for microfinance investments or support.

While measuring financial performance of MFIs is relatively straightforward (one can focus on traditional efficiency or profit measures known from the banking and accounting literature), measuring

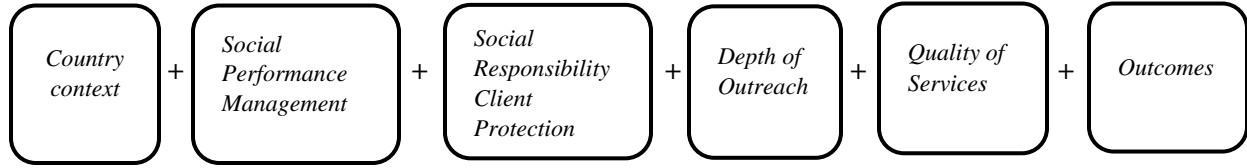
social performance is trickier. Past research has tried to measure the social performance of MFIs along *depth* and *breadth* dimensions (Schreiner 2002). While *depth* indicates the poverty level of the clients, *breadth* is defined as the number of clients served (Copestake, 2007). In addition to using average loan size as a proxy for depth, other proxies typically used include whether an MFI serves more female clients or more rural clients relative to other MFIs (Armendáriz and Szafarz 2011; Mersland and Strøm 2010).

Despite the extensive use of these indicators in the literature, scholars have expressed concerns about their inherent weaknesses (Copestake 2007; Armendáriz and Szafarz 2011). After all, social performance is complex in nature and may not be captured by the few proxy variables that have been used in the existing literature (Copestake 2007). Thus, as part of the effort to concretize the social performance metric, the Social Performance Task Force (SPTF) came up with the so-called Universal Standards for Social Performance Management (Universal Standards). While the Universal Standards do not capture social goals exhaustively, they offer a broader spectrum of criteria for measuring MFIs' social performance; see Table 1A below for more details on the Universal Standards. Following the development of the Universal Standards by the SPTF, specialized microfinance rating agencies started giving social performance scores. Empirical evidence shows that nearly all international capital and knowledge flowing into MFIs come with social strings attached (Mersland et al. 2011). Thus, for many MFIs, having a social performance rating, conducted by a specialized third party, has become key in their dialogue with investors and other key stakeholders.

## ***2.2 Social Performance Scores***

In this study we consider rating agency reports by MicroRate, MicroFinanza Rating, and Planet Rating. The three specialized microfinance rating agencies are supposed to assess six common elements in deciding the social rating to be allocated to an MFI: country context, social performance management, social responsibility, depth of outreach, quality of services, and outcomes (Clark and Sinha 2013).

**Figure 1:** The six common elements in a social performance rating



Source: Clark and Sinha (2013, p. 1)

**Table 1A.** The Universal Standards

The Universal Standards	Social Performance Rating Parameters
1. <i>Define and Monitor Social Goals</i> <ul style="list-style-type: none"> <li>• The institution has a strategy to achieve its social goals.</li> <li>• The institution collects, reports, and ensures the accuracy of client-level data that are specific to the institution’s social goals.</li> </ul>	<i>Social Performance Management</i>
2. <i>Ensure Board, Management and Employee Commitment to Social Goals</i> <ul style="list-style-type: none"> <li>• Members of the board of directors are committed to the institution’s social mission.</li> <li>• Members of the board of directors hold the institution accountable to its social mission and social goals.</li> <li>• Senior management sets and oversees implementation of the institution’s strategy for achieving its social goals.</li> <li>• Employees are recruited, evaluated, and recognized based on both social and financial performance criteria.</li> </ul>	<i>Social Performance Management</i>
3. <i>Design Products, Services, Delivery Models, and Channels that Meet Clients’ Needs and Preferences</i> <ul style="list-style-type: none"> <li>• The institution understands the needs and preferences of different types of clients. The institution seeks client feedback for product design and delivery.</li> <li>• The institution’s products, services, delivery models, and channels are designed to benefit clients in line with the institution’s social goals. The institution designs products that are appropriate to client needs and do no harm.</li> </ul>	<i>Social Responsibility Depth of Outreach Quality of Services Outcomes</i>
4. <i>Treat Clients Responsibly</i> <ul style="list-style-type: none"> <li>• Financial service providers take adequate care in all phases of their credit processes to determine that clients have the capacity to repay without becoming over-indebted. In addition, providers will implement and monitor internal systems that support prevention of overindebtedness and will foster efforts to improve market-level credit risk management (such as credit-information sharing).</li> <li>• Providers communicate clear, sufficient, and timely information in a manner and language clients can understand so that clients can make informed decisions. The need for transparent information on pricing, terms, and conditions of products is highlighted.</li> </ul>	<i>Social Responsibility</i>

<ul style="list-style-type: none"> <li>• Providers and their agents treat their clients fairly and respectfully and without discrimination. The institution has safeguards to detect and correct corruption as well as aggressive or abusive treatment by their employees and agents, particularly during the loan sales and debt collection processes.</li> <li>• The privacy of individual client data will be respected in accordance with the laws and regulations of individual jurisdictions. Such data will only be used for the purposes specified at the time the information is collected or as permitted by law, unless otherwise agreed with the client.</li> <li>• Providers have in place timely and responsive mechanisms for complaints and problem resolution for their clients. They use these mechanisms both to resolve problems and to improve products and services.</li> </ul>	
<p>5 <i>Treat Employees Responsibly</i></p> <ul style="list-style-type: none"> <li>• The institution follows a written human resources policy that protects employees and creates a supportive working environment.</li> <li>• The institution communicates to all employees the terms of their employment and provides training for essential job functions.</li> <li>• The institution monitors employee satisfaction and turnover.</li> </ul>	<i>Social Responsibility</i>
<p>6. <i>Balance Financial and Social Performance</i></p> <ul style="list-style-type: none"> <li>• Growth rates are sustainable and appropriate for market conditions, allowing for high service quality and do not jeopardize either financial sustainability or client well-being.</li> <li>• Equity investors, lenders, board, and management are aligned on the institution’s double bottom line and implement an appropriate financial structure in its mix of sources, terms, and desired returns.</li> <li>• Pursuit of profits and setting of prices serve both the long-term sustainability of the institution and client well-being.</li> </ul>	<i>Social Performance Management</i>

---

**Table 1A** is sourced from the Social Rating Guide. See Clark and Sinha (2013, pp. 10–12).

### ***2.3 Hypotheses Development***

Social performance assessment requires the use of performance indicators that are measurable, achievable, and relevant (Lapenu and Ledesma 2011; Székely and Knirsch 2005). Prior studies on microfinance use alternative metrics for assessing social performance. All these social performance proxies have shortcomings, most of which are acknowledged in the literature (Armendáriz and Szafarz 2011; D’Espallier et al. 2013). Furthermore, we argue that the underlying theoretical motivation for the introduction of such ratings is to reduce information asymmetry (Akerlof 1970) between investors and MFIs. Specifically, when

information asymmetries become significant, new investors will end up with only “lemon” MFIs, or most likely, will not invest.

In this paper, we show with data *whether and how* the conventional social metrics and the Universal Standards are factored into social performance scores. In the rest of this section, we formulate our research hypotheses based on (1) the expected relationship between the social performance scores and the traditional measures of social performance and (2) the expected relationship between the social performance scores and the Universal Standards of Social Performance Management developed by the Social Performance Task Force.

### ***2.3.1. Traditional social performance measures and social rating scores in microfinance***

As mentioned, scholars and practitioners of microfinance have continuously debated the effectiveness of the established social performance measures, such as average loan size, total number of clients, percentage of female clients, and percentage of or focus on outreach to rural clients. For instance, many scholars assume that smaller loan size indicates greater outreach to poorer clients, based on the intuition that poorer clients either require smaller loans or cannot access larger loans because they lack collateral (Cull et al. 2007; Armendáriz and Morduch 2010). However, few studies have actually tested the relationship between average loan size and client poverty level (Armendáriz and Szafarz 2011).

Even though we can expect average loan size and client poverty level to be negatively related, some studies have found evidence to the contrary (Hatch and Frederick 1998; Armendáriz and Szafarz 2011). A key explanation for these findings is that in deciding on the size of loans, MFIs take into account nontraditional securities, such as social collateral or commitment to repay based on the opportunity to access future loans (Armendáriz and Morduch 2010; Armendáriz and Szafarz 2011). Moreover, larger average loans may be the result of an MFI restructuring its loan portfolio by complementing smaller loans with larger loans in order to cross-subsidize the former (Armendáriz and Szafarz 2011).

Despite the conflicting evidence on the relation between average loan size and client poverty level, we still believe that, on average, poorer clients take out smaller loans and that an MFI with a smaller average loan size is regarded as positive by a rating agency. Thus, we propose the following hypothesis:

***H1a. MFIs with smaller average loan size have higher social performance scores.***

Outreach to female clients is found to be inversely related to loan size, such that a higher percentage of female clients is often related to smaller loan size (Hermes et al. 2011). It has been shown that women are largely overrepresented among the hardcore poor in many areas (Kar 2013) and that women are likely to be more concerned about their children's health and education than men (Armendáriz de Aghion and Morduch 2005). It is not surprising, then, that female borrowers have traditionally constituted the key client group for most MFIs (Morduch 1999).

Importantly, Harper (2011) indicates that female borrowers represent a less risky clientele because they often lack political capital and are more connected to their communities. Moreover, they repay better their loans (D'Espallier et al., 2013). Thus, we cannot rule out the possibility that an MFI may focus on targeting female clients for financial objectives and not for social ones per se. Nevertheless, given that microfinance has a history of empowering women, we formulate the following hypothesis:

***H1b. MFIs with a higher percentage of female clients have higher social performance scores.***

Similarly, the percentage of or focus on rural clients has been used in some studies to proxy social performance. Generally, income levels are lower in rural areas than in cities. Salim (2013) studies the location pattern of the Grameen Bank and BRAC, and finds that it deviates from extreme profit-maximizing behavior in its choice of locations for branches in Bangladesh. This implies that the targeting of rural clients is a calculated effort to alleviate rural poverty. Defining rural outreach is not always straightforward, however. Thus, some studies analyzing rural outreach use dummy variables based on the MFIs' intentions instead of the percentage of rural clients to indicate whether they have a rural focus (Mersland et al. 2011). Therefore, we propose the following hypothesis:

***H1c. MFIs with a rural market focus have higher social performance scores.***

While much of our discussion pertains to the three proxies for *depth* of outreach covered above, we propose that the other traditional social performance proxies applied in microfinance research, i.e., total number of clients and portfolio yield, may also have inherent weaknesses (Roberts 2013; Hartarska and Mersland 2012). For instance, the total number of clients does not take into account the saturation level of microfinance markets (Mader 2013). Citing the case of Andhra Pradesh as an example, Mader (2013) demonstrates that excessive client growth among competing MFIs contributes to significant client overindebtedness and repayment crises. Nevertheless, given that a core objective of microfinance is to promote greater financial inclusion, it follows that reaching out to more clients is often a positive indicator of social performance. Therefore, we propose the following hypothesis:

***H1d. MFIs with a higher number of clients have higher social performance scores.***

The interest earned on loan portfolios constitutes the main source of income to MFIs (Schreiner 2002). As empirical evidence shows, pro-poor MFIs that provide small loans to their clients are generally not cost-efficient (Hermes et al. 2011; Schreiner 2002). In order to sustain their operations, most MFIs are compelled to charge high interest rates (D'Espallier et al. 2017a; Roberts 2013). Nevertheless, we can expect pro-poor MFIs not to charge inordinately high interest rates as this would be detrimental to the clients. Therefore, we propose the following hypothesis:

***H1e. MFIs with lower portfolio yields have higher social performance scores.***

### ***2.3.2 The Universal Standards for Social Performance Management and MFIs' social performance scores***

We argue that MFIs' use of Universal Standards for Social Performance is a strategy to reduce asymmetric information vis-à-vis investors and donors, and other stakeholders. A commitment to be assessed by rating agencies is thus a form of "signaling" (Akerlof, 1970), which is further strengthened by the fact that it

implies a kind of “certification” and reputation building exercise (Rao, 1994). The Universal Standards for Social Performance Management presented in Table 1A consist of six dimensions (www.sptf.info). The first dimension measures the extent to which the MFI defines and monitors social goals. The second dimension measures the extent to which the MFI ensures board, management, and staff commitment to its social goals. The third dimension measures the extent to which clients’ needs and preferences are met by the MFI’s products, services, and delivery. The fourth dimension measures the extent to which the MFI treats clients responsibly. The fifth dimension measures the extent to which the MFI treats employees responsibly. The sixth dimension measures the extent to which the MFI balances social performance and financial performance. Each of the six dimensions is made up of different sub-elements.

As documented in the Social Rating Guide, the Universal Standards constitute core criteria for calculating social performance rating scores. However, whether compliance with the standards actually improves the rating score has not been analysed before in rigor research. When Beisland and Mersland (2012) studied the drivers of the *financial* ratings in microfinance they found large inconsistencies between what the rating agencies signaled to be important in guidelines and what actually had significant influence on the assigned scores. Nevertheless, by looking into the *social* rating reports of rating agencies, we find that their rating guidelines are crafted essentially along the dimensions of the Universal Standards for Social Performance Management. Therefore, we group all six dimensions of the Universal Standards into the following uniform hypothesis:

*H2. MFIs in compliance with the Universal Standards for Social Performance have higher social performance scores.*

### **3. Data and Methodology**

#### **3.1 Research Design**

The social performance rating score represents a summary of the overall social performance of an MFI (Clark and Sinha 2013). The social performance score is measured on an ordinal scale. Thus, we run an

ordered logistic regression for our basic model (Greene 2012). Specifically, we regress the social performance scores on measures of social performance selected across two theoretical domains: (1) traditional outreach measures and (2) the Universal Standards. We also introduce a set of control variables in order to control for systematic differences between the sampled MFIs. The following multivariate specification provides the model for the empirical analysis:

$$Sprating = \beta_0 + \beta_1 TRAD + \beta_2 USTD + \beta_3 CONTROLS + \varepsilon \dots \dots \dots (1)$$

The dependent variable, *Sprating*, represents the social performance score assigned to MFI *i* in year *t*. The three rating agencies all use scale systems, based on different combinations of letters that we converted, mathematically, into a uniform scale, *Sprating*, which takes values between 1 and 10 (see Table 1B for details). This procedure is similar to those used in studies on the determinants of microfinance financial performance ratings (e.g., Beisland and Mersland 2012) as well as in classic studies on the determinants of traditional credit ratings (Horrigan 1966).

*TRAD* represents the set of traditional indicators of social performance typically applied in microfinance research. It includes the following variables: average loan size scaled by GDP per capita (*ALS-GDP*), percentage of female clients (*Female-perc*), a dummy variable indicating whether the MFI operates in rural areas (either exclusively or alongside operations in urban areas) (*Rural*), the log of total clients

**Table 1B:** Standardized Social Performance Rating Scales

<i>Classification</i>	<i>Definition</i>	<i>MicroRate</i>		<i>Planet Rating</i>		<i>MicroFinanza Rating</i>	
		<i>Rating</i>	<i>Score</i>	<i>Rating</i>	<i>Score</i>	<i>Rating</i>	<i>Score</i>
EXCELLENT	Excellent social performance and responsible	5 stars	10	5+ / 5 / 5-	10	AAA	10
	finance practices;	4 ½	9	4+ / 4 / 4-	8	AA	8.75
	high likelihood of achieving social mission.	4 stars	8			A	7.5
GOOD	Good social performance and responsible finance	3 ½	7	3+ / 3 / 3-	6	BBB	6.25
	practices;						
	likely to achieve social mission.	3 stars	6			BB	5
FAIR	Fair social performance and responsible practice;	2 ½	5	2+ / 2 / 2-	4	B	3.75
	partial alignment to social mission.	2 stars	4				
WEAK	Weak social performance and responsible	1 ½	3	1+ / 1 / 1-	2	C	2.5
	practices;	1 star	2	0+ / 0		D	1.25
	risk of mission drift	½	1				

**Table 1B** is adapted from the Social Rating Guide. See Clark and Sinha (2013, p. 8).

(*Totclients-ln*), and portfolio yield (*Portf-yield*). *USTD* refers to the six Universal Standards, which include indexed measures of whether the MFI: (1) defines and monitors social performance (*Social-obj*), (2) ensures its staff's commitment to social goals (*Staff-commit*), (3) designs products and services that meet its clients' needs (*Service-quality*), (4) treats its clients responsibly (*Client-resp*), (5) treats its employees responsibly (*Employ-resp*), and (6) achieves a balance between financial outcomes and social outcomes (*Balanced-perf*). Each of these six dimensions represents an additive index of underlying social variables, as outlined in Table 2.

*CONTROLS* represent the set of firm-specific control variables, country-specific control variables, and the rating agency, regional, and time indicators included in the regression model. Based on previous microfinance studies (e.g., Gutiérrez-Nieto et al. 2009; Beisland and Mersland 2012; Hermes et al. 2011), we control for MFI size measured as the log of total assets (*Totassets-ln*), MFI experience (*Age*), an indicator for whether the MFI is regulated by national banking authorities (*Bank-regul*), an indicator for whether the MFI was initiated by an international organization (*Int-initiated*), and risk measured as the proportion of loan portfolio in arrears for more than 30 days (*PaR>30*). Other control variables include the return on assets (*ROA*), an indicator for whether the MFI offers village banking or solidarity group-lending services (*Group-loan*), an indicator for nonprofit legal status (*NGO/COOP*), and the MFI's financial performance rating score (*Fin-rating*). We also include country-specific Human Development Index (*HDI*) scores to control for socioeconomic differences between the countries where the MFIs are located.

Moreover, in order to detect potential differences between the rating agencies, the analysis is repeated with subsamples split according to the rating agency. One regression is run for each agency. Most rating agencies state *ex ante* that they give better scores to MFIs that demonstrate superior performance in implementing the Universal Standards, among other indicators (see for example [www.microfinanzarating.com](http://www.microfinanzarating.com)). Thus, we potentially face a problem of reverse causality in our basic regression model and, as a result, we rerun the regressions by introducing lagged values of the explanatory variables in the model as a robustness check (not tabulated).

### ***3.2 Data***

We use panel data on 204 MFIs whose social performance has been rated by either MicroRate, Planet Rating, or MicroFinanza Rating. The performance assessment reports were obtained from various sources, including the websites of the rating agencies. Our data covers the period 2004 to 2015. However, the majority of the data is between 2007 and 2014. Different numbers of observations for different variables and in different years are reported. For each MFI, we record up to four years of observations, yielding between 543 and 631 firm-year observations for each of the variables, as indicated in Table 2.

On a scale of 1 to 10, the average social performance score is 5.74. The average loan size (expressed as a percentage of GDP per capita) is 20% for the mean MFI and 10% for the median MFI. This gap between the mean and the median scaled average loan size suggests that there are some entities offering relatively higher amounts of loans to their clients. Moreover, some MFIs serve considerably more clients than the average MFI. While the average MFI serves around 45,000 clients and has \$31.4 million worth of assets, the median serves around 19,000 clients worth only \$11.5 million.

Overall, the median values seem to provide a more representative description of the sampled MFIs. The median MFI has about 62% female clients. The statistics also show that a large percentage of the MFIs (over 80%) have some activities in rural areas. The median MFI has a 36% yield on its portfolio, which indicates that socially rated MFIs are normally not among the institutions charging exorbitant interest rates, for which some MFIs, like Compartamos in Mexico, have come under fire (Cull et al. 2009).

**Table 2:** Variable Definitions

Variable	Theoretical framework	Definition	Proposed relationship
<b>Dependent Variable</b>			
Sprating		The microfinance social performance score. The different rating scales have been mathematically converted into a uniform scale that takes values between 1 and 10. Higher numbers indicate a better rating.	
<b>Independent Variables</b>			
	<i>Traditional indicators</i>		
ALS-GDP		States the average outstanding loan amount expressed as a percentage of GDP per capita.	-
Female-perc		States the percentage of female clients.	+
Rural		A dummy variable = 1 if the MFI operates in rural areas (either exclusively or alongside operations in urban areas).	+
Totclients-ln		States the natural logarithm of the total number of MFI clients.	+
Portf-yield		Financial revenue from loan portfolio divided by gross loan portfolio.	-
	<i>Universal Standards (No.)</i>		
Social-obj	(1) Define and monitor social objectives	An additive index of three dummy variables. A maximum score of 3 is assigned if the MFI has (i) well-defined social objectives, (ii) an environmental policy, and (iii) social indicators integrated into its management information systems.	
Staff-commit	(2) Staff commitment to social goals	An additive index of two dummy variables. A maximum score of 2 is assigned if (i) the rating agency considers the MFI's staff to be committed to social goals, and (ii) the loan officers' incentive systems are designed based on both financial and social performance indicators.	+
Service-quality	(3) Delivery of quality products and services that meet clients' needs	An additive index of three dummy variables. A maximum score of 3 is assigned if (i) the MFI has a system for monitoring client feedback, (ii) the MFI has a client retention ratio greater than the median MFI (i.e., 68%), and (iii) the MFI provides extra loan products such as agricultural and housing loans as well as nonfinancial services, including business development services.	+
Client-resp	(4) Treat clients responsibly	An additive index of three dummy variables. A maximum score of 3 is assigned if (i) the MFI checks loans with a credit bureau, (ii) the rating agency considers the MFI's pricing systems to be transparent, and (iii) no mandatory savings are required before a loan is issued by the MFI.	+
Employ-resp	(5) Treat employees responsibly	An additive index of three dummy variables. A maximum score of 3 is assigned if (i) the staff members participate in the formulation of the MFI's strategy, (ii) the staff members are given at least 2 days of training in essential job duties, and (iii) the MFI has a staff turnover ratio that does not exceed that of the median MFI (0.16).	+
Balanced-perf	(6) Balance financial performance and social performance	An index represented by the dummy variable = 1 if the MFI's operational self-sufficiency (OSS) is at least 115%. We define OSS as total operating revenue divided by total administrative and financial expenses.	+
<b>Control Variables</b>			
Totassets-ln		The natural logarithm of end-of-period total assets.	
Age		The number of years since the MFI started microfinance operations.	
Bank-regul		A dummy variable that indicates whether or not the MFI is regulated by national banking authorities: 1 = Yes, 0 = No.	
Int-initiated		A dummy variable that indicates whether or not the MFI was initiated by an international organization: 1 = Yes, 0 = No.	

PaR>30	Proportion of the loan portfolio-at-risk (30 days or more in arrears).
ROA	Operational net income divided on average annual assets and adjusted for country inflation
Group-loan	A dummy variable that states the lending method used by the MFI: 1 = Village banking or solidarity group-lending, 0 = Individual loans.
NGO/COOP	A dummy variable that indicates the legal status of the MFI: 1 = NGO or cooperative, 0 = Bank or non-bank financial institution.
Fin-rating	States the financial performance score of the MFI. Different rating scales have been converted into a uniform scale taking values between 0 and 1. With the converted scale, a higher value suggests a better rating.
HDI	The Human Development Index of the country where the MFI operates.
<b>Agency Indicators</b>	
MicroRate	An indicator variable = 1 if the MFI is rated by the MicroRate rating agency.
Planet	An indicator variable = 1 if the MFI is rated by the Planet Rating agency.
MicroFinanza	An indicator variable = 1 if an MFI is rated by the MicroFinanza Rating agency.
<b>Region Indicators</b>	
ECA	An indicator variable = 1 if the MFI operates in Europe and Central Asia.
EAS	An indicator variable = 1 if the MFI operates in East Asia and the Pacific.
SAS	An indicator variable = 1 if the MFI operates in South Asia.
LCN	An indicator variable = 1 if the MFI operates in Latin America and the Caribbean.
MEA	An indicator variable = 1 if the MFI operates in the Middle East and North Africa.
SSF	An indicator variable = 1 if the MFI operates in Sub-Saharan Africa.

---

**Note:** Regional dummies are classified in accordance with the World Bank's global geographical classification. The Europe and Central Asia (ECA) region is used as the reference category. MicroRate is left out as a reference category for the rating-agency indicators.

---

As outlined in Table 2, each of the six Universal Standards is measured as an additive index of related underlying social performance metrics. These underlying performance metrics (or conditions) have been conveniently selected based on available data. Starting with the first Universal Standard, i.e., define and monitor social objectives, the median MFI applies at least two of the three specified conditions (see Table 2). In relation to the second Universal Standard, Table 3 demonstrates that the median MFI meets at least one of the two specified conditions measuring the extent to which the MFI ensures its staff's commitment to social objectives. Similarly, the median MFI meets two of the three specified social conditions for quality products and services and fair treatment of clients. In relation to the fifth Universal Standard, i.e., treat employees responsibly, the statistics reveals that the median MFI meets only one of the three specified conditions. Finally, close to 70% of the MFIs generated revenues that were equivalent to at least 115% of total operating costs.

Exploring other institutional characteristics, Table 3 illustrates that the median MFI has been operating for 10 years. Of the 204 sampled MFIs, 44% are regulated by national banking authorities and about the same percentage are of international origin. Portfolio quality, measured by the share of loan portfolio at risk for 30 days or more (PaR>30), is 5% on average. The median MFI has a PaR>30 of 3%, and a ROA of 4%. Moreover, about 40% of the MFIs offer either village banking or group-lending services while the remainder offer individual loans only, demonstrating a shift in the industry from joint to individual liabilities (Attanasio et al. 2015). 60% of the institutions are organized as mutually owned organizations, incorporated either as nongovernmental organizations or member-based cooperatives. MicroFinanza Rating rates 42% of the MFIs while Planet Rating and MicroRate rate 31% and 27% of the MFIs, respectively. The MFIs in our dataset have also been financially assessed by a rating agency. Thus, we include the financial performance score as a control and, using a mathematically converted scale between 0 and 1 (Beisland and Mersland 2012), we find that the average MFI has a financial performance score of 0.55.

**Table 3:** Descriptive Statistics

Variable	Obs. (N)	Mean	Median	Std. dev.	Min.	Max.
<b>Dependent Variable</b>						
Sprating	631	5.74	6	1.42	2	9
<b>Independent Variables</b>						
ALS-GDP	618	0.20	0.10	0.30	0.01	2.44
Female-perc	553	0.66	0.62	0.22	0.08	1
Rural	631	0.83	1	0.38	0	1
Totclients (*000)	543	45	18.74	72.59	0.33	477
Totclients-ln	543	9.82	9.84	1.39	5.80	13.07
Portf-yield	630	0.34	0.36	0.15	0.03	1.13
Social-obj	629	1.55	2	0.89	0	3
Staff-commit	631	0.89	1	0.57	0	2
Service-quality	631	1.50	2	0.91	0	3
Client-resp	631	1.65	2	1.02	0	3
Employ-resp	616	0.96	1	0.84	0	3
Balanced-perf	629	0.69	1	0.46	0	1
<b>Control variables</b>						
Total assets (*000)	624	31400	11500	50700	339.6	351000
Totassets-ln	624	16.33	16.26	1.40	12.74	19.68
Age	629	14.86	10	7.68	1	52
Bank-regul	623	0.44	0	0.50	0	1
Int-initiated	630	0.44	0	0.50	0	1
PaR>30	599	0.05	0.03	0.07	0.01	0.53
ROA	630	0.03	0.04	0.10	-0.97	0.8
Group-loan	631	0.40	0	0.49	0	1
NGO/COOP	631	0.60	1	0.49	0	1
Fin-rating	620	0.55	0.56	0.15	0.18	0.91
HDI	607	0.61	0.65	0.14	0.03	0.79
MicroRate	631	0.27	0	0.44	0	1
Planet	631	0.31	0	0.46	0	1
MicroFinanza	631	0.42	0	0.49	0	1
ECA	631	0.10	0	0.30	0	1
EAS	631	0.12	0	0.32	0	1
SAS	631	0.005	0	0.07	0	1
LCN	631	0.49	0	0.50	0	1
MEA	631	0.055	0	0	0	1
SSF	631	0.23	0	0.42	0	1

In terms of geographical distribution, approximately half of the MFIs (49%) operate in Latin America and the Caribbean while 23% operate in Sub-Saharan Africa. The rest are spread across four other geographical regions as categorized by the World Bank (see Table 3 for details). For the 58 host countries, the average HDI is 61% and the median is 65%. This shows that MFIs are situated in countries that have neither the most nor the least developed economies.

## 4. Empirical Results and Discussion

### 4.1 Bivariate Analysis

In this section, we present our empirical findings. Beginning with the bivariate analysis, Table 4a lists the Spearman's rank correlation coefficients for the variables of the study. With the exception of the indicators for MFIs' rural activity and portfolio yield<sup>2</sup>, the correlation matrix generally demonstrates the hypothesized relationships between the traditional social indicators and the social performance scores. Moreover, with the exception of the fifth Universal Standard (i.e., treating employees responsibly), we find a strong positive correlation between the social performance scores and the Universal Standards. Overall, for most of the test variables, the bivariate correlation analysis supports our hypotheses.

In examining the correlation between the control variables and the social performance scores, we note that larger and older MFIs obtain better social performance scores. This result indicates that there is a learning curve as well as scale economies related to social performance (Gutiérrez-Nieto et al. 2009). Also, in line with previous studies, Table 4a shows that non-profit MFIs and MFIs of international origin have better social performance scores (Mersland et al. 2011). Interestingly, MFIs that operate with high risk levels or are regulated by national banking authorities obtain relatively poor social performance scores. Other interesting results concern the positive association between social rating and ROA and a MFI's financial rating score. This implies that MFIs that are financially efficient stands a better chance at attaining a higher social performance rating than the less financially efficient institutions, *ceteris paribus*.

---

<sup>2</sup> In 4b, we actually find a positive correlation between portfolio yield and social rating scores for MicroRate and Microfinanza.

**Table 4a: Spearman's Correlation Matrix-Pooled sample**

Panel A	1	2	3	4	5	6	7	8	9	10	11
1 Sprating											
2 ALS-GDP	<b>-0.35</b>										
3 Female-perc	<b>0.22</b>	<b>-0.57</b>									
4 Rural	0.06	0.07	0.05								
5 Totclients-ln	<b>0.38</b>	<b>-0.26</b>	<b>0.32</b>	0.07							
6 Portf-yield	<b>0.19</b>	<b>-0.54</b>	<b>0.38</b>	<b>-0.12</b>	0.05						
7 Social-obj	<b>0.22</b>	-0.00	-0.00	-0.04	-0.03	-0.01					
8 Staff-commit	<b>0.34</b>	<b>-0.19</b>	<b>0.10</b>	-0.03	0.01	0.04	<b>0.28</b>				
9 Service-quality	<b>0.37</b>	<b>-0.22</b>	<b>0.11</b>	<b>-0.15</b>	<b>0.23</b>	<b>0.14</b>	<b>0.29</b>	<b>0.18</b>			
10 Client-resp	<b>0.25</b>	-0.05	<b>-0.14</b>	<b>-0.11</b>	-0.07	<b>0.10</b>	<b>0.24</b>	0.06	<b>0.24</b>		
11 Employ-resp	-0.05	-0.04	0.09	0.06	-0.09	-0.06	0.06	<b>0.14</b>	0.05	<b>-0.13</b>	
12 Balanced-perf	<b>0.12</b>	<b>0.12</b>	<b>-0.17</b>	-0.03	<b>0.18</b>	-0.07	0.03	-0.06	<b>0.13</b>	0.03	-0.06
13 Totassets-ln	<b>0.34</b>	0.05	-0.04	<b>0.11</b>	<b>0.73</b>	-0.08	<b>0.10</b>	-0.05	<b>0.29</b>	<b>0.22</b>	<b>-0.13</b>
14 Age	<b>0.15</b>	0.00	<b>0.11</b>	<b>0.20</b>	<b>0.27</b>	<b>-0.16</b>	0.09	0.03	<b>0.20</b>	0.09	<b>-0.19</b>
15 Bank-regul	<b>-0.22</b>	<b>0.32</b>	<b>-0.38</b>	0.03	0.08	<b>-0.16</b>	<b>-0.10</b>	-0.07	<b>-0.14</b>	-0.01	-0.04
16 Int-initiated	<b>0.22</b>	<b>-0.25</b>	<b>0.22</b>	0.00	<b>0.18</b>	<b>0.17</b>	<b>0.14</b>	<b>0.14</b>	0.00	0.01	0.07
17 PaR>30	<b>-0.20</b>	<b>0.24</b>	<b>-0.16</b>	0.00	<b>-0.24</b>	-0.11	-0.06	<b>-0.17</b>	<b>-0.10</b>	0.00	<b>-0.16</b>
18 ROA	<b>0.29</b>	<b>-0.12</b>	0.01	0.04	<b>0.29</b>	<b>0.14</b>	0.09	0.06	<b>0.21</b>	-0.01	0.01
19 Group-loan	0.03	-0.44	0.53	0.02	0.11	0.31	-0.23	0.07	-0.04	-0.21	0.06
20 NGO/COOP	<b>0.12</b>	<b>-0.15</b>	<b>0.22</b>	0.04	-0.03	<b>-0.11</b>	<b>0.13</b>	0.08	0.08	-0.05	<b>0.12</b>
21 Fin-rating	<b>0.42</b>	-0.09	0.07	0.09	<b>0.47</b>	-0.02	<b>0.19</b>	<b>0.20</b>	<b>0.25</b>	0.21	0.07
22 HDI	<b>0.20</b>	<b>-0.28</b>	-0.03	<b>-0.20</b>	<b>-0.16</b>	<b>0.14</b>	<b>0.14</b>	0.08	<b>0.24</b>	<b>0.48</b>	<b>-0.12</b>
	12	13	14	15	16	17	18	19	20	21	
12 Balance-perf											
13 Totassets-ln	<b>0.26</b>										
14 Age	<b>0.21</b>	<b>0.34</b>									
15 Bank-regul	0.08	0.07	<b>-0.18</b>								
16 Int-initiated	<b>-0.19</b>	0.06	<b>-0.10</b>	-0.02							
17 PaR>30	<b>-0.11</b>	<b>-0.15</b>	<b>0.12</b>	-0.05	<b>-0.22</b>						
18 ROA	<b>0.63</b>	<b>0.23</b>	<b>0.16</b>	0.02	-0.02	<b>-0.36</b>					
19 Group-loan	<b>-0.17</b>	<b>-0.25</b>	<b>-0.13</b>	<b>-0.10</b>	<b>0.12</b>	<b>-0.16</b>	-0.09				
20 NGO/COOP	-0.04	-0.02	<b>0.33</b>	<b>-0.55</b>	-0.05	<b>0.12</b>	-0.05	0.03			
21 Fin-rating	<b>0.23</b>	<b>0.53</b>	<b>0.18</b>	-0.01	<b>0.20</b>	<b>-0.41</b>	<b>0.39</b>	-0.18	-0.05		
22 HDI	0.02	<b>0.17</b>	0.01	<b>-0.19</b>	0.03	0.04	0.05	<b>-0.14</b>	0.03	<b>0.10</b>	

**Table 4a** presents the Spearman's rank order correlation matrix showing the bivariate relationship between social performance scores and the set of social performance proxies plus a selection of control variables in a pooled sample. Numbers presented in bold roman and bold italics represent significance levels of 0.05 and 0.01, respectively.

**Table 4b** Spearman's Correlation Matrix- Agency Specific Analysis

<i>A</i>	<i>MicroRate</i>	1	2	3	4	5	6	7
1	Sprating							
2	ALS-GDP	<b>-0.52</b>						
3	Female-perc	<b>0.47</b>	<b>-0.69</b>					
4	Rural	<b>0.26</b>	-0.12	0.22				
5	Totclients-ln	<b>0.41</b>	<b>-0.31</b>	<b>0.51</b>	<b>0.35</b>			
6	Portf-yield	<b>0.20</b>	<b>-0.51</b>	<b>0.24</b>	<b>-0.21</b>	<b>-0.22</b>		
7	Totassets-ln	<b>0.17</b>	0.09	0.12	<b>0.19</b>	<b>0.85</b>	<b>-0.42</b>	
8	Age	<b>0.29</b>	0.01	0.11	<b>0.15</b>	<b>0.46</b>	<b>-0.25</b>	<b>0.46</b>

<i>B</i>	<i>Planet Rating</i>	1	2	3	4	5	6	7
1	Sprating							
2	ALS-GDP	-0.10						
3	Female-perc	0.12	<b>-0.59</b>					
4	Rural	-0.03	<b>0.21</b>	-0.02				
5	Totclients-ln	<b>0.20</b>	<b>-0.22</b>	<b>0.34</b>	0.08			
6	Portf-yield	<b>-0.02</b>	<b>-0.49</b>	<b>0.43</b>	-0.08	0.08		
7	Totassets-ln	<b>0.20</b>	<b>0.15</b>	0.06	0.15	<b>0.62</b>	-0.02	
8	Age	<b>0.23</b>	0.10	-0.00	<b>0.19</b>	0.11	-0.16	<b>0.33</b>

<i>C</i>	<i>Microfinanza</i>	1	2	3	4	5	6	7
1	Sprating							
2	ALS-GDP	<b>-0.22</b>						
3	Female-perc	<b>0.20</b>	<b>-0.51</b>					
4	Rural	<b>0.03</b>	-0.08	-0.03				
5	Totclients-ln	<b>0.38</b>	-0.07	<b>0.20</b>	0.02			
6	Portf-yield	<b>0.17</b>	<b>-0.48</b>	<b>0.38</b>	-0.04	-0.04		
7	Totassets-ln	<b>0.44</b>	0.07	<b>-0.14</b>	0.01	<b>0.69</b>	-0.08	
8	Age	0.02	-0.12	0.11	0.18	<b>0.17</b>	-0.09	<b>0.20</b>

**Table 4b** presents the Spearman's rank order correlation matrix (agency specific) showing the bivariate relationship between social performance scores and the set of social performance proxies plus a selection of control variables. Numbers presented in bold roman and bold italics represent significance levels of 0.05 and 0.01, respectively.

Thus, the view of the rating agencies appears to be that it should be possible for MFIs to score high in both financial and social performance concurrently (Gutiérrez-Nieto et al. 2009). This runs counter to the trade-off hypotheses argued by Hermes et al. (2011) and Wry and Zhao (2018).

We note that Table 4a shows relatively high correlation coefficients between some of the variables applied in this study. According to Kennedy (2008), the correlation coefficient should be above 0.8 to signal a serious multicollinearity problem. However, if many pairs of variables have correlation coefficients just below this level, a multivariate regression analysis may be vulnerable to multicollinearity challenges that are not detected by individual correlation coefficients (or by other metrics such as variance inflation factors<sup>3</sup>). Such challenges are more severe in small samples, relatively speaking (Green, 2012). According to Green (2012), multicollinearity may produce unstable results with relatively large changes in parameter estimates following small changes in the data. We return to these challenges in the next section.

#### ***4.2 Multivariate Analysis***

The multivariate regression estimates are obtained from a general model that expresses MFIs' social performance scores, as captured by the rating agencies, as a function of theoretically driven proxies for MFIs' social performance and a set of control variables. We run an ordered logistic regression model to test the predicted relations between the social performance score and the established indicators of social performance.<sup>4</sup>

---

<sup>3</sup> In addition we estimate the Variance Inflation Factors (unreported) for the major explanatory variables. The results demonstrates that our model is free of serious multicollinearity problems (Hair et al., 2010).

<sup>4</sup> In addition to the main test variables specified in Table 2, we substituted the indexed measures of the Universal Standards with six variables, one for each standard. Guided by the Smart campaign's Client Protection Principles, we selected the following six variables arranged consecutively for standards 1 to 6: (1) *Soc\_obj* is a dummy variable that = 1 if the MFI has clearly defined social objectives, (2) *Staff\_commit* is a dummy variable that = 1 if the rating agency considers the MFI's staff to be committed to social goals, (3) *Client\_retent\_rate* is the client retention rate of the MFI, (4) *IR\_transprncy* is a dummy variable that =1 if the rating agency considers the MFI to be transparent in charging interest rates, (5) *Staff\_tover* is the rate of staff turnover in the MFI, and (6) *OSS* is the level of operational self-sufficiency. The unreported results of this test are similar to the main results reported in Panel B of Table 5.

As mentioned in the previous section, correlation coefficients below but still close to the proposed thresholds may pose multicollinearity challenges in our multivariate analysis. We have tested the stability of our results by introducing explanatory variables successively. These tests suggest that the high correlations between average loan size and percentage of female clients (-0.57) as well as the correlation between average loan size and portfolio yield (-0.54) lead to unstable and unreasonable results. Similarly, problems arise from the high correlation between the log of total assets and the log of total clients. We use two remedies. Regarding the latter problem, we simply exclude the log of total assets from the multivariate analysis. Size and outreach are captured by the log of total clients. As for the former problem, both average loan size and percentage of female clients or portfolio yield are important test variables in our study, and we do not want to exclude either of them. Therefore, we run three main regressions, one with average loan size included as a test variable and the others with percentage of female clients and portfolio yield included as test variables respectively. In doing so, we circumvent the multicollinearity challenges and are able to present reasonable and trustworthy results for all our test variables. Panel A of Table 5 presents the unstandardized regression estimates of the social performance scores on the social performance indicators. Columns (1), (2) and (3) present the results of a pooled sample analysis of social performance ratings, while columns (4) to (12) present the results of an agency-specific analysis.

Starting with the traditional indicators, the results based on the pooled sample suggest a generally insignificant relationship between average loan size and social performance scores. Similarly, columns (2) and (3) of Table 5 displays an insignificant relationship between social performance scores and the percentage of female clients and portfolio yield respectively. Thus, contrary to our hypotheses, the best social performers according to the rating agencies (observed collectively) are neither the MFIs providing smaller loans at lower interest rates nor the MFIs targeting female clients. In light of some of the past literature (e.g., Hermes et al. 2011; Mersland and Strøm 2010; Gutiérrez-Nieto et al. 2009, Kar 2013), this result may come as a surprise.

On the other hand, several other studies have provided explanations as to why average loan size, percentage of female clients or interest rate (portfolio yield) may not be reliable social performance

indicators. For instance, although it is held that small average loan size is the hallmark of pro-social MFIs, Armendariz and Szafarz (2011) demonstrate that in order to sustainably provide small loans to a greater number of clients, it is necessary to cross-subsidize the relatively expensive small loans with larger loans that can be served more cost-efficiently.

**Table 5: Determinants of Social Performance Scores: Pooled Ordered Logit Models**

<i>PANEL A</i> Unstandardized Estimates												
<i>Dependent Var.</i>	<i>Social Performance Score</i>						Planet	MicroFinanza				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<i>Independent Vars.</i>												
ALS-GDP	0.38 (0.40)			-10.52*** (1.98)			-1.24* (0.74)			-0.50 (0.51)		
Female-perc		0.27 (0.65)			4.86*** (1.05)			0.80 (0.94)			1.26* (0.68)	
Portf-yield			-0.86 (0.69)			1.00 (1.23)			-1.90** (0.94)			3.05*** (1.11)
Rural	0.61** (0.24)	0.70*** (0.25)	0.55** (0.24)	1.76*** (0.41)	1.90*** (0.43)	1.41*** (0.40)	0.34 (0.48)	0.19 (0.49)	-0.03 (0.46)	0.38* (0.44)	0.14 (0.48)	0.29* (0.44)
Totclients-ln	0.42*** (0.08)	0.46*** (0.16)	0.41*** (0.15)	0.09* (0.15)	0.17 (0.16)	0.30** (0.13)	0.18 (0.15)	0.29* (0.15)	0.32** (0.14)	0.82*** (0.12)	0.78*** (0.12)	0.84*** (0.12)
Social-obj	0.04** (0.10)	0.04* (0.11)	0.04** (0.10)	0.78*** (0.23)	0.58*** (0.25)	0.53** (0.21)	0.30* (0.17)	0.37* (0.20)	0.26 (0.18)	0.25 (0.14)	0.19 (0.15)	0.26 (0.14)
Staff-commit	1.02*** (0.17)	1.02*** (0.18)	0.97*** (0.17)	1.31*** (0.34)	1.61*** (0.35)	1.67*** (0.34)	0.97** (0.31)	1.08*** (0.30)	0.96*** (0.29)	1.80*** (0.32)	1.73*** (0.33)	1.78*** (0.31)
Service-quality	0.50*** (0.11)	0.41*** (0.11)	0.49*** (0.11)	0.97*** (0.21)	1.06*** (0.24)	0.73*** (0.20)	0.32* (0.19)	0.35 (0.22)	0.40** (0.19)	0.68*** (0.17)	0.51*** (0.18)	0.69*** (0.17)
Client-resp	0.31*** (0.12)	0.37*** (0.12)	0.29** (0.12)	0.65*** (0.21)	1.18*** (0.24)	0.85*** (0.21)	0.38** (0.18)	0.30 (0.21)	0.35** (0.18)	0.15 (0.14)	0.31** (0.15)	0.23* (0.13)
Employ-resp	0.01* (0.12)	0.02* (0.13)	0.01 (0.12)	0.75 (0.27)	-0.79* (0.27)	-0.40 (0.26)	0.04 (0.19)	0.07 (0.20)	0.03 (0.19)	0.05* (0.16)	0.23* (0.17)	0.08 (0.15)
Balanced-perf	0.44** (0.21)	0.66*** (0.23)	0.43** (0.22)	0.48* (0.43)	0.25* (0.43)	0.05 (0.42)	0.59* (0.34)	0.83** (0.42)	0.48 (0.33)	0.32 (0.28)	0.08 (0.30)	0.28 (0.26)
Age	-0.01 (0.01)	-0.01 (0.02)	-0.01* (0.01)									
Bank-regul	-0.84*** (0.27)	-0.65** (0.29)	-0.86*** (0.26)									
Int-initiated	0.63*** (0.20)	0.59*** (0.21)	0.64*** (0.20)									
PaR>30	-2.97** (1.54)	-3.67** (1.59)	-2.92** (1.53)									
ROA <sup>5</sup>	1.11* (1.14)	1.10* (1.23)	0.87 (1.13)									
Group-loan	0.15** (0.21)	0.06 (0.26)	0.24 (0.23)									
NGO/COOP	0.24 (0.23)	0.19 (0.26)	0.20 (0.24)									
Fin-rating	0.17 (0.24)	0.17 (0.23)	0.17 (0.24)									
HDI	2.34** (0.97)	2.29** (1.01)	2.16** (0.96)									

<sup>5</sup> The results remain unchanged when we use return on equity (ROE)

<i>Indicator Variables</i>												
Rating agency	Yes	Yes	Yes									
Region	Yes	Yes	Yes									
Year	Yes	Yes	Yes									
Observations	484	439	488	152	145	152	155	133	162	221	205	225
R-squared	0.16	0.16	0.15	0.27	0.27	0.18	0.15	0.15	0.10	0.13	0.14	0.14
LR chi-square	332.78***	297.96***	323.05***	149.24***	145.81***	101.88	72.92***	56.12***	50.45***	117.91***	106.07***	128.68***
Chow Test F Stats	12.00***	9.20***	11.68***									

*PANEL B* Standardized Estimates

<i>Dependent Var.</i>	<i>Social Performance Score</i>	
<i>Independent Vars.</i>	Unstandardized	Standardized
Totclients-ln	0.86*** (0.18)	3.34***
Staff-commit	1.00*** (0.18)	1.77***
Service-quality	0.52*** (0.12)	1.60***
Client-resp	0.43*** (0.13)	1.54***
HDI	3.07*** (1.06)	1.52***
ALS-GDP	1.32*** (0.47)	1.37***
Rural	0.77*** (0.26)	1.35***
Balanced-perf	0.34* (0.19)	1.34***
Int-initiated	0.55** (0.21)	1.31**
Age	-0.03* (0.02)	0.80*
PaR>30	-4.38*** (1.62)	0.77***
Portfolio-yield	-2.19*** (0.81)	0.71***
Bank-regul	-0.82*** (0.29)	0.67***
Observations	434	434
R-squared	0.17	
LR chi-square	311.64***	
Latent SD		0.97

**Table 5** represents the ordered logit regression of social performance scores (*Sprating*) on microfinance social performance indicators. Panel A presents the unstandardized regression estimates using 11 social performance indicators. Details of the social performance variables are presented in Table 2. In Panel B, we followed Campos et al.'s (2005) procedure and dropped irrelevant regressors (i.e., explanatory variables that have insignificant z-values with a p-value of 0.1 as the cutoff point). This process was repeated until all the insignificant regressors were dropped from the model. After obtaining only significant regressors, we ascertained the standardized

---

coefficients in order to identify the most influential regressors. For standardized estimates, we were interested in the absolute values of the coefficients. \*, \*\*, and \*\*\* represent significance levels of 10%, 5%, and 1%, respectively. Standard errors are in parentheses.

---

Similarly, Armendariz and Morduch (2010) also demonstrate the possibility of observing rising loan volumes among MFIs that have a policy of providing increasing “step-up” loans to clients with a positive repayment history. These realities are perhaps the reasons why other field studies have not been able to establish a link between average loan size and client poverty level (e.g., Banerjee 2013; Luan and Bauer 2016). In a similar vein, the impact of focusing solely on female clients has been questioned in prior studies (e.g., de Mel et al. 2008; Duflo 2012; Harper 2011). In a recent survey, Mersland et al (2019) find that less than half of MFIs include poverty alleviation or similar terms, and only one fifth include female focus in their mission statements. Again, though pro-poor MFIs are the least expected to charge overly high interest rates, the growing advocacy towards sustainable financial inclusion has moved the focus to charging ‘fair’ rather than lower interest rates (Hudon et al., 2018). Still, the agency-specific analysis reveals that the rating of social enterprises like MFIs is not a standardized exercise. For instance, as per the results, while MicroRate and Planet Rating give high scores to MFIs that provide small loans, MicroRate and Microfinanza rewards higher scores to MFIs that target female clients. Again, whereas Planet gives high scores to MFIs charging low interest rates, Microfinanza gives high scores to MFIs charging high interest rates. As a result, we cannot conclude strongly that loan size, client gender and interest rates are not important to the social performance scores.

As hypothesized, we find that MFIs that operate in rural areas earn better social performance scores than MFIs that operate only in urban areas. Thus, outreach to rural clients may be a good indicator of social performance (Lopez and Winkler 2018), although we note that no significant relationship is documented in the Planet Rating sample. Additionally, Table 5 shows that the log of the total number of clients is significantly positively related to the social performance scores, as suggested in the correlation analysis. Consistently, all the agencies favor MFIs that have a large clientele base. Thus, in support of our hypothesis, greater financial inclusion is still a key parameter for an MFI’s social performance score despite the evidence suggesting the negative repercussions of extremely high client growth (Mader 2013).

We continue with the Universal Standards. Interestingly, there is a significant positive relationship between all six Universal Standards and the social performance scores, as hypothesized. However, the significance levels vary. For example, treating employees responsibly appears to be less important than the other dimensions. We also note that the agencies attach slightly different weights to the different standards<sup>6</sup>. We shall return to the relative importance of each of the standards below.

Some control variables appear to be important explanatory factors for the social performance scores. For instance, in contrast to the bivariate analysis, columns (1), (2) and (3) reveal a negative relationship between an MFI's experience (*Age*) and its social performance score. This may indicate that rating agencies tend to favor younger MFIs, perhaps as a means to encourage them to do more. Or it may indicate, simply, that younger MFIs are better at focusing on their social performance. The results on the other control variables basically confirm the results produced by the bivariate analyses. Worth noticing is the positive relationship between group lending and social performance scores. This result corroborates the scholars who often associate group lending with positive social performance (Cull et al. 2007; Kar 2013). The negative relationship between social performance scores and regulation is as expected. After all, the role of regulators is to assure the financial soundness of the banking system and not to overlook MFIs' compliance in terms of social performance. Moreover, regulators tend to impose a rigid control system, which makes it difficult for MFIs to service vulnerable and often illiterate clients.

To test which indicators that have a greater influence on social performance scores, we rerun the full model and generate the standardized regression coefficients (Long and Freese 2006; Winship and Mare 1984). Only significant explanatory variables are included in this analysis. Specifically, we use a general-to-specific approach where we successively exclude the least significant explanatory variable until the remaining variables have a p-value lower than 0.1 (Campos et al. 2005).

---

<sup>6</sup> Results of Chow Statistics also demonstrates a statistically significant difference in the assessments made by the three rating agencies (Chow 1960).

With the standardized estimates, a higher absolute value of the regression coefficient indicates a greater impact on the social performance score. Regarding the absolute values of the standardized estimates (Panel B of Table 5), we find that, with a standardized beta (*Stdbxy*) of 3.34, the log of total clients is the most influential predictor of the social performance score. The second most influential predictor is staff members' commitment to the MFI's social mission (*Stdbxy* = 1.77). Additionally, with a *Stdbxy* of 1.60, the indexed measure of supplying quality products and services follows as the third most influential determinant of a good social performance score. The index measuring the extent to which the MFI treats its clients responsibly and the country's level of socio-economic development proxied by HDI, respectively, are also found to be highly relevant. Finally, the standardized estimates also reveal banking regulations to have a significant negative influence on social performance.

Overall, Panel B of Table 5 further demonstrates that the portfolio yield and percentage of female clients are weaker indicators of social performance as measured by the social performance rating scores. By contrast, outreach as measured by total number of clients stands out as an important indicator of social performance as measured by the social rating scores. Interestingly, responsible treatment of employees (i.e., the fifth Universal Standard) appears to be unimportant for social performance scores. Moreover, Panel B suggests that having a well-defined social objective and appropriate social performance monitoring systems, is not a particularly important driver of social performance scores.

As mentioned in the research design, the rating agencies state *ex ante* that they score MFIs based on their assessment of the MFIs' performance in implementing the Universal Standards, among other indicators (Clark and Sinha 2013). Thus, we may face a problem of reverse causality in our basic regression model.<sup>7</sup> Accordingly, we test our basic model by introducing lagged values of the explanatory variables in the model as a robustness check. If the average of the current and lagged values of the explanatory variables is included in the regression, the results (untabulated) are similar to the ones reported in Table 5. Specifically, they show that historical observations are relevant in explaining MFIs' social performance

---

<sup>7</sup> Regardless of possible reverse causality, it should in any case be interesting to assess whether the rating agencies "practice what they preach" and assign scores according to their own stated policies (Clark and Sinha 2013).

scores. However, the conclusions on the determinants of MFIs' social performance scores remain unchanged.

## **5. Conclusion**

Recently the microfinance industry has put more attention to ethical issues, partly due to the observation that the social mission of these institutions has been downplayed – commonly referred to as mission drift (Hudon et al. 2018; Beisland et al. 2017). We argue that the newly introduced social performance ratings constitute an important contribution to the debate on the ethics of microfinance. Rating agencies maintain that social performance ratings are independent assessments of the extent to which a financial institution aligns its goals with recognized social values (Clark and Sinha 2013). What is unclear, however, is whether the rating agencies “practice what they preach” and assign rating scores in accordance with announced policies. The theoretical motivation for this hypothesized association is signaling theory (e.g., Akerlof, 1970), and furthermore the ability to convey a reputation by the means of a quality “certification” (Rao, 1994). Specifically, we make the argument that MFIs can use the public social performance scores to signal to their investors and other stakeholders that their decision-making is in line with their ethical motivation. Moreover, for policy makers, socially oriented investors, donors, and other stakeholders, it is vital to understand which of the many possible influential parameters are more important to the rating agencies when they assign social performance scores.

We make use of two frameworks when identifying the main parameters to include in our study. First, we use the traditional proxies that are applied in academic research on social performance in MFIs. These include average loan size, percentage of female clients, outreach to rural clients, total number of clients, and portfolio yield (Schreiner 2002; Cull et al. 2007; Vanroose and D’Espallier 2013; Roberts 2013). Second, we use the Universal Standards for Social Performance Management, which the Social Performance Task Force introduced in a more recent initiative to assess social performance in MFIs more comprehensively ([www.spft.info](http://www.spft.info)).

In line with signaling theory predictions, by testing our basic model in a series of comprehensive multivariate analyses, we find that rating agencies indeed give higher ratings to MFIs with higher scores on the six dimensions of social performance represented by the six Universal Standards. Other interesting findings are that average loan size, the commonly used social performance indicator in the microfinance literature, is not significantly related to the social rating score when we observe all agencies collectively. Moreover, the percentage of female clients and the level of interest rate, often used as complementary measures, are weakly related to the social performance scores. Despite these results of the pooled sample analysis, we find that in an agency-specific analysis of social performance scores the MicroRate agency attaches significant importance to smaller average loan size and a greater percentage of female clients; Planet Rating also attaches significant importance to smaller average loan size and smaller portfolio yield. For Microfinanza, significant importance is attached to higher percentage of female clients but to a greater portfolio yield. This illustrates that the rating of social enterprises like MFIs is still not a standardized and uniform exercise. Thus, we are unable to draw strong general conclusions that loan size, client gender and interest rates are not relevant parameters for social performance ratings. A less disputable result is that rating agencies reward greater outreach to clients in general and rural clients in particular. Overall, continued efforts in aligning the rating methodologies across agencies and communicating these to relevant stakeholders are recommended.

When we specifically test for the relative importance of the various performance indicators with respect to their influence on social performance scores, the standardized beta estimates reveal that what rating agencies value the most – even more than high scores in the six Universal Standards – is MFIs reaching out to more clients. Thus, outreach is of vital importance when social performance scores are given. In this test of the relative importance of indicators, four of the six Universal Standards are among the most important dimensions of social rating scores. Of these four, having staff members who are committed to social goals turns out to be the most important of these dimensions. Additionally, treating clients responsibly, delivering quality products that meet client needs, and being able to balance social and financial performance are key to earning good social performance scores.

Some results from the control variables are interesting and could motivate more research. For instance, we find that MFIs that are younger and that operate in more developed contexts (HDI) have higher rating scores. This could signal the difficulty of operating with double bottom-line objectives. The social motivation may be stronger in the beginning of an MFI's life cycle but may be difficult to uphold over time as difficulties in operating with double bottom lines arise. Likewise, as operating with both social and financial logics motivations is tricky, it may require more developed legal and economic contexts, which are associated with a higher HDI. Moreover, the finding that MFIs regulated by national banking authorities are given lower rating scores, leads to the question of whether regulators actually promote anti-social practices in MFIs. A promising issue for further research is to address the different kinds of investor motivation, and how this impact the role of performance appraisals, such as the social ratings highlighted in this study. Furthermore, future research should address how framing and choice architecture related to presentation of social performance ratings could nudge investors toward more ethical decision-making (Pilaj, 2017).

Enterprises with double logics like MFIs need to document not only their financial viability but also their compliance with social standards. In this regard, the involvement of specialized third-party rating agencies is useful. This study has shed light on the factors that drive social rating scores in microfinance. Essentially, it has been revealed that social rating agencies appreciate non-traditional social indicators such as enhancing client satisfaction and staff welfare. MFIs that require capital injection from socially responsible investors thus need to pay particular attention to such dimensions of social performance. To further enhance the impact of rating agencies, we suggest that agencies become even more transparent about how they make their ratings and the content of their ratings. In this way, information asymmetric could be further reduced by a better matching of microfinance investors motivation with the business strategy of individual MFIs. This way, investors with different social performance preferences, could be matched with appropriate MFIs.

## REFERENCES

- Akerlof, G. (1970). The market for lemons: Quality uncertainty and the market mechanism. *The Quarterly Journal of Economics*, 84 (3), 488-500.
- Armendáriz, B. & Szafarz, A. (2011). On mission drift in microfinance institutions. In B. Armendáriz, and M. Labie (Eds.), *The Handbook of Microfinance*. Singapore: World Scientific Publishing.
- Armendáriz, B., & Morduch, J. (2010). *The Economics of Microfinance*. Cambridge, MA: MIT Press.
- Armendáriz de Aghion, B., & Morduch, J. (2005). Microfinance beyond group lending. *Economics of Transition*, 8(2), 401–420.
- Attanasio, O., Augsburg, B., De Haas, R., Fitzsimons, E., & Harmgart, H. (2015). The impacts of microfinance: Evidence from joint-liability lending in Mongolia. *American Economic Journal: Applied Economics*, 7(1), 90–122.
- Ausburg, B., & Fouillet, C. (2010). Profit Empowerment: The Microfinance Institution’s Mission Drift. *Perspectives on Global Development and Technology*. 9, 327-355
- Banard, H. 2019. From the editor: The social side of international business policy – mapping social entrepreneurship in South Africa. *Journal of International Business Policy*. 2: 1-8.
- Banerjee, A. V. (2013). Microcredit under the microscope: What have we learned in the past two decades, and what do we need to know? *Annual Review of Economics*, 5(1), 487–519.
- Battilana, J., & Dorado, S. (2010). Building sustainable hybrid organizations: The case of commercial microfinance organizations. *Academy of Management Journal*, 53(6), 1419–1440.
- Beisland, L. A., & Mersland, R. (2012). An analysis of the drivers of microfinance rating assessments. *Nonprofit and Voluntary Sector Quarterly*, 41(2), 213–231.
- Beisland, L. A., D’Espallier, B., & Mersland, R. (2017). The commercialization of the microfinance industry: Is there a “personal mission drift” among credit officers? *Journal of Business Ethics* (doi 10.1007/s10551-017-3710-4).
- Bénabou, R., & Tirole, J. (2010). Individual and corporate social responsibility. *Economica*, 77(305), 1-19.
- Brau, J. C., & G. M. Woller (2004). Microfinance: A comprehensive review of the existing literature. *The Journal of Entrepreneurial Finance* 9(1) 1–27.
- Briere, M., & Szafarz, A. (2015). Does commercial microfinance belong to the financial sector? Lessons from the stock market. *World Development*, 67, 110–125.
- Bull, M., & Ridley-Duff, R. (2018). Towards an appreciation of ethics in social enterprise business models. *Journal of Business Ethics*, 1-16.
- Campos, J., Ericsson, N. R., & Hendry, D. F. (2005), General-to-specific modeling: An overview and selected bibliography. FRB International Finance Discussion Paper No. 838. Available at SSRN: <https://ssrn.com/abstract=791684>
- Chow, G.C. (1960). Tests of Equality between Sets of Coefficients in Two Linear Regressions. *Econometrica*, 28, 591-605.
- Clark, H., & Sinha, F. (2013). *Social Rating Guide (Vol. 2)*. The Rating Initiative.
- Cobb, J. A., Wry, T., & Zhao, E. Y. (2016). Funding financial inclusion: Institutional logics and the contextual contingency of funding for microfinance organizations. *Academy of Management Journal*, 59, 2103–2131.
- Copestake, J. (2007). Mainstreaming microfinance: Social performance management or mission drift? *World Development*, 35(10), 1721–1738.
- Cull, R., Demigüç-Kunt, A., & Morduch, J. (2007). Financial performance and outreach: A global analysis of leading microbanks. *The Economic Journal*, 117, 107–133.
- Cull, R., Demirgüç-Kunt, A., & Morduch, J. (2009). Microfinance meets the market. *Journal of Economic Perspectives*, 23(1) 167–192.
- Daskalaki, M., Hjorth, D., & Mair, J. (2015). Are entrepreneurship, communities and social transformation related? *Journal of Management Inquiry*, 24(4), 419–423.

- de Mel, S., McKenzie, D., & Woodruff, C. (2008). Returns to capital in microenterprises: Evidence from a field experiment. *Quarterly Journal of Economics*, 123(4), 1329–1372.
- D’Espallier, B., Goedecke, J., Hudon, M., & Mersland, R. (2017a). From NGOs to banks: Does institutional transformation alter the business model of microfinance institutions? *World Development*, 89, 19–33.
- D’Espallier, B., Hudon, M., & Szafarz, A. (2017b). Aid volatility and social performance in microfinance. *Nonprofit and Voluntary Sector Quarterly*, 46(1), 116–140.
- D’Espallier, B., Guérin, I., & Mersland, R. (2013). Focus on women in microfinance institutions. *Journal of Development Studies*, 49, 589–608.
- Dichter, T. W., & Harper, M. (2007). What’s wrong with microfinance. In T. W. Dichter, & M. Harper (Eds.), *What’s Wrong with Microfinance*. Essex, England: Practical Action Publishing.
- Duflo, E. (2012). Women empowerment and economic development. *Journal of Economic Literature*, 50(4), 1051–1079.
- Goetz, A., & Gupta, R. S. (1996). Who takes the credit? Gender, power and control over loan use in rural credit programs in Bangladesh. *World Development*, 24(1), 45–63.
- Greene, W. H. (2012). *Econometric Analysis*. New York: Prentice Hall.
- Gutiérrez-Nieto, B., Serrano-Cinca, C., & Camón-Cala, J. (2016). A credit score system for socially responsible lending. *Journal of Business Ethics*, 133(4), 691–701.
- Gutiérrez-Nieto, B., Serrano-Cinca, C., & Mar Molinero, C. (2009). Social efficiency in microfinance institutions. *Journal of the Operational Research Society*, 60(1), 104–119.
- Hatch, J. K., & Frederick, L. (1998). *Poverty Assessment by Microfinance Institutions: A Review of Current Practice*. Bethesda, MD: Microenterprise Best Practices, Development Alternatives, Inc.
- Harper, M. (2011). The commercialization of microfinance: Resolution or extension of poverty? In Bateman, M. (Ed.), *Confronting Microfinance: Undermining Sustainable Development* (pp. 49–63). Boulder, CO: Kumarian Press.
- Hartarska, V., & Mersland, R. (2012). What governance mechanisms promote efficiency in reaching poor clients? Evidence from rated microfinance institutions. *European Financial Management*, 18(2), 218–239.
- Hermes, N., Lensink, R., & Meesters, A. (2011). Outreach and efficiency of microfinance institutions. *World Development*, 39, 938–948.
- Horrigan, J. O. (1966). The determination of long-term credit standing with financial ratios. *Journal of Accounting Research*, 4, 44–62.
- Hoyos, A., & Angel-Urdinola, D. (2017). Assessing the role of international organizations in the development of the social enterprise sector (English). Policy Research working paper; no. WPS 8006. Washington, D.C.: World Bank Group
- Hudon, M., Labie, M., & Reichert, P. (2018) What is a fair level of profit for social enterprise? Insights from microfinance. *Journal of Business Ethics* <https://doi.org/10.1007/s10551-018-3986-z>
- Hudon, M., & Sandberg, J. (2013). The ethical crisis in microfinance: Issues, findings, and implications. *Business Ethics Quarterly*, 23(4) 561–589.
- Hulme, D., & Mosley, P. (1996). *Finance against Poverty*. London: Routledge.
- Kabeer, N. (2001). Conflicts over credit: Re-evaluating the empowerment potential of loans to women in rural Bangladesh. *World Development*, 29(1), 63–84.
- Kar, A. K. (2013). Mission drift in microfinance: Are the concerns really worrying? Recent cross-country results. *International Review of Applied Economics*, 27(1), 44–60.
- Kennedy, P. (2008). *A Guide to Econometrics*. Malden, MA: Blackwell Publishing.
- Lapenu C., & Ledesma, G. (2011). Responsible investments in microfinance: The value added of social audits for the fund managers. *Enterprise Development and Microfinance* 22(4), 291–303
- Long, J. S., & Freese, J. (2006). *Regression Models for Categorical Dependent Variables Using Stata*. College Station, TX: Stata Press.
- Lopez, T., & Winkler, A. (2018). The challenge of rural financial inclusion: Evidence from microfinance. *Applied Economics*, 50(14), 1555–1577.

- Luan, D. X., & Bauer, S. (2016). Does credit access affect household income homogeneously across different groups of credit recipients? Evidence from rural Vietnam. *Journal of Rural Studies*, 47, 186–203.
- Mader, P. (2013). Rise and fall of microfinance in India: The Andhra Pradesh crisis in perspective. *Strategic Change*, 22(1–2), 47–66.
- Mair, J. & Martí, I. (2006). Social entrepreneurship research: A source of explanation, prediction, and delight. *Journal of World Business*, 41(1): 36–44.
- Mair, J. & Martí, I. (2009). Entrepreneurship in and around institutional voids: A case study from Bangladesh. *Journal of Business Venturing* 24: 419–435.
- Mersland, S., Nyarko, S., & Szafarz, A. (2019), “Do social enterprises walk the talk? Assessing microfinance performances with mission statements”, *Journal of Business Venturing Insights*, 11: e00117,
- Mersland, R., & Strøm, R. Ø. (2014). Microfinance institutions: Financial and social performance in R. Mersland, & R. Ø. Strøm, (Eds.) *Microfinance Institutions: Financial and Social Performance*. Berlin: Springer.
- Mersland, R., & Strøm, R. Ø. (2010). Microfinance mission drift? *World Development* 38(1), 28–36.
- Mersland, R., Randøy, T., & Strøm, R. Ø. (2011). The impact of international influence on microbanks’ performance: A global survey. *International Business Review* 20(2), 163–176.
- Morduch, J. (1999). The microfinance promise. *Journal of Economic Literature* 37, 1569–1614.
- Morduch, J. (2000). The microfinance schism. *World Development*, 28(4), 617–635.
- Postelnicu, L., & Hermes, N. (2016). Microfinance performance and social capital: A cross-country analysis. *Journal of Business Ethics*, 153(2), 427–445.
- Rao, H. (1994). The social construction of reputation: Certification contests, legitimation, and the survival of organizations in the American automobile industry: 1885–1912. *Strategic Management Journal* 15 (1), 29–44.
- Pilaj, H. (2017). The Choice Architecture of Sustainable and Responsible Investment: Nudging Investors towards Ethical Decision-making. *Journal of Business Ethics* 140 (4), 743–753.
- Roberts, P. W. (2013). The profit orientation of microfinance institutions and effective interest rates. *World Development*, 41, 120–131.
- Rosenberg, R. (2007). CGAP reflections on the Compartamos’ initial public offering: A case study on microfinance interest rates and profits. *Focus Note* 42. Washington, D.C.: CGAP.
- Salim, M. M. (2013). Revealed objective functions of microfinance institutions: Evidence from Bangladesh, *Journal of Development Economics*, 104, 662–669.
- Schreiner, M. (2002). Aspects of outreach: A framework for discussion of the social benefits of microfinance. *Journal of International Development*, 14, 591–603.
- Servin, R., Lensink, R., & Van den Berg, M. (2012). Ownership and technical efficiency of microfinance institutions: Empirical evidence from Latin America. *Journal of Banking & Finance*, 36(7), 2136–2144.
- SPTF (2017). The Universal Standards for Social Performance Management: Implementation Guide. Retrieved from <https://sptf.info/universal-standards-for-spm/the-implementation-guide>
- Symbiotics (2016). *Symbiotics Microfinance Investment Vehicles Survey: Market Data & Peer Group Analysis*. Geneva.
- Székely, F., & Knirsch, M. (2005). Responsible leadership and corporate social responsibility: Metrics for sustainable performance. *European Management Journal*, 23(6), 628–647.
- Vanroose, A., & D’Espallier, B. (2013). Do microfinance institutions accomplish their mission? Evidence from the relationship between traditional financial sector development and microfinance institutions’ outreach and performance. *Applied Economics*, 45(15), 1965–1982.
- Winship, C., & Mare, R. D. (1984). Regression models with ordinal variables. *American Sociological Review*, 49, 512–525.

Wry, T., & Zhao, E. Y. (2018). Taking trade-offs seriously: Examining the contextually contingent relationship between social outreach intensity and financial sustainability in global microfinance. *Organization Science*, 29(3): 507-528.