# Information Transparency and Agency Costs in the Microfinance Industry : The Adequacy of the Operational Self-Sufficiency Index

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# Information Transparency and Agency Costs in the Microfinance Industry: The Adequacy of the Operational Self-Sufficiency Index

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*The microfinance sector is an important ingredient in the process of global integration of the financial markets. The rapid development of the microfinance sector in many developing countries motivated prominent donors to develop systems for standardised and comparable reporting of financial and social performance. This effort has yielded substantial results in terms of promoting transparency, reducing information asymmetries and mitigating agency conflicts in an industry vulnerable to such problems. The article discusses these problems and the steps initiated by the industry to overcome them. We also point to conflicts of interests that may persist because the information platform and the indicators that are being reported are managed and selected by the industry itself. In particular, we use a common indicator of performance, the Operational Self-Sufficiency Index, to highlight the tendency of selected indicators to overstate performance and understate subsidies and costs.*

**Keywords:** Microfinance, Performance Measurements of Microfinance Institutions (MFIs), Operational Self Sufficiency (OSS), Financial Self Sufficiency (FSS), Subsidy Dependence Index (SDI)

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## 1. Introduction

Timely and accurate information is critical to managing businesses and for efficient allocation of scarce resources to their most productive uses. By producing information and making it transparent to all stakeholders, an organisation can reduce information asymmetries and the associated agency conflicts. This can help in decreasing incidents of skewed decision making; improving planning and formulation of strategy; and facilitating effective evaluation of past performance. It is also a requirement for successful market integration.

By withholding information on its performance, an organisation may create or increase problems of adverse selection, moral hazard and conflicts of interests at all levels of management. However, while lack of information is bad in that it usually results in reduction in the value of the firm, inaccurate information may also have serious implications as it could lead to inefficient allocation of scare resources.

The consequences of information problems are particularly acute in the case of microfinance institutions (MFIs) for four basic reasons. First, the problem of imperfect information in credit markets is more severe in the microfinance industry partly due to lack of traditional collateral (Jain and Mansuri 2003; Ledgerwood 1999). Second, MFIs face the dual mission of achieving financial sustainability while at the same time extending outreach and providing financial services to micro enterprises and low-income families (Armendariz de Aghion and Morduch 2005; Mersland and Strom 2009). However, setting multiple objectives results in conflicts of interests among various stakeholders, and this can be used by management to advance its own interests (Jensen 2002; Tirole 2006). Third, setting social goals is problematic because social performance is difficult to measure. In particular, it is hard to identify variables that can serve as reliable proxies for non-profit objectives (Aubert et al. 2009). For example, the size of the loan is often used as a proxy for reaching poor borrowers. However, non-poor borrowers may also be attracted by small loans, particularly, when the alternative is to borrow at higher rates or when it is possible to take multiple

small loans from different lenders (de Wit 1998; McIntosh and Wydick 2005; Simanowitz and Walter 2002). The fourth reason for acute information problems in MFIs is ownership structure. Specifically, the industry is composed mainly of non-for-profit organisations whose owners lack monetary incentives to monitor their investments (Jansson and Westley 2004; Mersland and Strom 2009; Speckbacher 2008; Xia et al. 2009).

In this article, we focus on the fourth problem outlined above, namely the lack of owners' incentives to monitor the behaviour of MFIs. We discuss how and why this problem is being addressed by the industry itself. Indeed, the industry is moving towards the provision of standardised financial and social information on MFIs which is important for alleviating conflicts of interests between owners (mainly donors) and management of MFIs. Moreover, a newly established online centre for microfinance information is freely accessible to practitioners, academics and other stakeholders, an initiative which undoubtedly increases the flow of information. Notwithstanding the importance of these developments, the contribution of this article is that it highlights problems with some of this information. In particular, we focus on a popular operational performance ratio, the Operational Self-Sufficiency (OSS) index, which is widely used but wrongly interpreted.

The structure of the article is as follows. In the next section, we introduce the principal agent relationship in the context of the microfinance industry. Section 3 focuses on the importance of standardising the financial reporting on MFI performance and the problem of using the OSS. Section 4 provides the conclusion.

## 2. Defining Principal–Agent Relationship in the Microfinance Industry

In a seminal paper, Jensen and Meckling (1976) define agency relationships as a contract under which the principal hires an agent to perform a service on the principal's behalf. Such relationships give rise to agency costs due to divergence of interests between the principal and the agent. It is further noted that agency conflicts

exist in all organisations and in all cooperative efforts, at every level of management.

In the microfinance industry, principal–agent relationship exists between donor governments, mostly in developed countries, who provide grants and concessionary lending to MFIs that are operating mainly in developing countries. Under this scenario, the ultimate principal is the tax payer in the developed country who delegates authority to his or her government or to various donor organisations to decide on the amount of foreign aid to be extended, including the terms of the aid and its allocation to various uses. The target ultimate recipients are poor entrepreneurs in developing countries and the ultimate agent is the MFI which receives the donations and decide how and to whom to lend the money. There are of course several layers of agents between the principal and the ultimate recipient. These include managements and employees of the donor agencies in the developed country and politicians, management, credit officers and other employees of MFIs in the target country.

The return on the donation to the principal is philanthropic rather than financial and is rooted in corporate social responsibility at the highest level. Indeed, Carroll (1991) defines four levels of corporate social responsibility, of which philanthropic is the highest and involves activities to promote welfare even when this is not expected in an economic, legal or ethical sense. The philanthropic return is materialised by the actual giving to the poor entrepreneur in the developing country, so the principal is not motivated to monitor how the funds are being used. Thus, typically the principal is 'absent and indifferent' in terms of monitoring the behaviour of agents at various levels in the process of transferring grants, donations and concessionary funds to ultimate users. The agents are therefore free to decide on the allocation of funds based on implicit or explicit assumptions regarding the principal's developmental goals as well as conflicts among themselves and political pressures (see, for example, Tsai 2004). Furthermore, as the ultimate principal is not active in monitoring the agents, it is left for them to decide, through mutual negotiations and agreements, on the flow of information on MFI performance. This information, however, has important role in the evaluation of MFIs by donor organisations

representing the ultimate principal. It is therefore imperative for ensuring that the MFI is judged to be socially desirable, so that donors and other creditors continue to provide funds for future projects.

The ultimate principal (the tax payer in the developed country) is 'absent and indifferent' as long as no extreme outcomes occur. But attention will be drawn to the activities of the MFIs, if extremely good or bad scenarios occur. Such scenarios may include the unravelling of corruption scandals when it is discovered that funds were diverted to connected individuals and families instead of reaching the target clientele. Alternatively, attention to the activities of an MFI may also be drawn following glamorous successes such as Grameen Bank wining the 2006 Nobel Peace Prize. It is for this reason, as well as due to increasing competition from for-profit organisations over the provision of microfinance services, that the microfinance industry is establishing reporting standards to increase the public information on MFI performance. Jensen and Meckling (1976) refer to such activities as bonding costs.

It is clearly in the agents' interest to present positive financial information on MFI activity. This is true for agents at all levels of engagement in the process of channelling donations from the ultimate principal to the MFI, including the credit officers, the managers of MFIs, politicians and donor organisations. All these agents stand to benefit from disseminating positive information on MFI performance. Benefits can come in the shape of larger future flows of grants which facilitate 'empire building', enhanced reputation or improved terms of employment. It is thus the case that if there is no effective monitoring of the agents by the principal, it is conceivable that agents will tend to exaggerate performance and understate subsidies and costs.

One solution to the lack of incentive to monitor by the ultimate principal is to encourage rating agencies to enter the industry. There are several microfinance rating agencies but in spite of some convergence towards a uniform rating system, rating methodologies still differ significantly across raters (Hartarska and Nadolnyak 2008). Furthermore, Hartarska and Nadolnyak (2008) find that sometimes MFIs are rated on the request of potential

donors and that, similar to the case of rating agencies in general, microfinance rating also involves conflicts of interest.

Against this background, it is of paramount importance to ensure that the donor community's guidelines on reporting MFI performance provide meaningful and accurate information. Not less important is to ensure that this information is appropriately interpreted by users including researchers from Academia.

## 3. Financial Reporting by the Microfinance Industry

The main source of information on the microfinance industry is the Microfinance Information Exchange, Inc. (MIX). MIX is a non-profit organisation founded by the Consultative Group to Assist the Poor (CGAP) and sponsored by donors actively involved in the microfinance industry. It provides key information on over 1400 MFIs worldwide, as well as on funds that invest in MFIs, networks and raters of MFIs. MIX uses a web-based platform called the MIX Market as its main outlet of information. In addition, it issues a number of publications, the chief of which is the MicroBanking Bulletin (MBB).

MIX Market and the MBB are clearly the main sources of data on social and financial performance of MFIs. This information is valuable to donors, states, MFIs' managements and investors in evaluating and comparing MFI performance. Hartarska (2005) argues that the creation of the MIX Market may have successfully satisfied the needs of donors and investors, making microfinance rating agencies too expensive an alternative. Moreover, with the expansion and richness of information on the MIX Market and the growing academic interest in analysing the performance of MFIs, more and more empirical work which is based on MIX Market data is being produced (see, for example, Krauss and Walter 2008; Hartarska and Nadolnyak 2008; Mersland 2009; Crabb 2008 and also Mersland and Strom 2009).

A vital issue in reporting MFI performance, and one which is addressed by the MIX, is the question of subsidies and how they should be reported. The importance of this issue can be traced back

to the emergence of the microfinance industry from the debris of state-owned development banks and directed credit which failed to reduce poverty (Adams et al. 1984). The new industry was inspired by two basic ideas: that the poor need financial services and that serving them can be profitable for financial institutions (Armendariz de Aghion and Morduch 2005). Armendariz de Aghion and Morduch (2005) further note, however, that the industry continues to be driven by subsidies. It is suggested that the general view on subsidies is that it is an essential factor at the early life of MFIs, but that experience and scale should drive MFIs towards becoming self-sufficient as they grow older. Accordingly, in reporting performance, the MIX classifies MFIs according to age. It also reports four key ratios of overall financial performance: Return on Assets (ROA), Return on Equity (ROE), OSS and Financial Self-Sufficiency (FSS). The ROA and ROE are adjusted to account for the subsidies received by the MFI because otherwise they are meaningless in indicating performance. The OSS and FSS are unique to the microfinance industry and aim at indicating self-sufficiency. They are calculated as follows:

$$\text{Operational Self-Sufficiency (OSS)} = \text{Financial Revenue}/(\text{Financial Expense} + \text{Provision for Loan Loss} + \text{Operating Expense}). \quad (1)$$

$$\text{Financial Self-Sufficiency (FSS)} = \text{Adjusted Financial Revenue}/\text{Adjusted (Financial Expense} + \text{Provision for Loan Loss Operating Expense}). \quad (2)$$

Our main argument is that the four overall financial performance indicators (ROA, ROE, OSS and FSS) provide a misleading indication regarding the true financial performance of MFIs. In particular, we believe that agency conflicts and the self-interest of donors to present positive financial information on MFI activity is at the core of the decision to use the OSS and FSS which tend to exaggerate performance and understate subsidies. Such conflicts of interests can also explain the choice not to use the Subsidy Dependence Index (SDI) which measures more accurately the

subsidy dependence of MFIs (see Yaron 1992a, 1992b; Yaron and Manos 2007). Furthermore, while the adjusted ROA and ROE as well as the FSS *attempt* to account for the subsidies received by the MFI, and do so at least partly, the OSS does not.

The problems with the ROA, ROE and FSS have been discussed extensively by Manos and Yaron (2008, 2009a, 2009b) and Yaron and Manos (2007). A main problem with these indicators is that they fail to recognise the full opportunity cost of equity. Furthermore, the selection of the opportunity cost of concessionary borrowings (as applied by the MIX market and the MBB in calculating the FSS) is inadequate in that it underestimates the cost of funds which the MFI would have to pay if access to concessionary borrowings was eliminated.

Establishing that the ROA, ROE and FSS are inadequate, we focus here on the OSS index, the problems of which are even more acute. Particularly, measuring financial revenue against the sum of operating expenses, *unadjusted* financial expenses and provision for loan loss, the OSS indicates whether the MFI has earned enough revenue to cover its *direct costs* (Ledgerwood 1999). However, given the importance of subsidies and the aim of attaining self-sufficiency, we argue that the OSS does not belong in the group of indicators of overall financial performance. The reason for that is that the OSS fails to indicate whether the MFI earned sufficient revenues to cover all costs including the explicit and implicit subsidies received.

Put differently, the OSS indicates the extent to which the MFI is profitable in a traditional accounting sense, assuming that it can continue to consume the subsidies as it has done to date. Given the subsidies it consumed, a positive OSS indicates that the MFI did not accumulate losses or destroyed value. Thus, the OSS provides an indication of future performance under the assumption that modes of operations, size and scope will not change and provided that the same undisclosed amount of subsidies will continue to flow from donors to the MFI. However, contrary to what its title erroneously indicates, the OSS cannot be used to compare the self-sufficiency of MFIs. For example, if the OSS of MFI A is larger than the OSS of MFI B, it is not necessarily the case that MFI A is more self-sufficient as indicated by the OSS.

As another example consider the financial statements of a hypothetical MFI as shown in Table 1.

**Table 1:** Financial Statements of a Hypothetical MFI

| **Balance Sheet (Annual Average)** | | | |
|---|---|---|---|
| *Assets* | | *Liabilities and Equity* | |
| Cash | 100 | Demand accounts | 100 |
| Short-term securities | 50 | Savings accounts | 300 |
| Loan Portfolio (LP) | 800 | Concessionary borrowed funds | 500 |
| Fixed assets | 50 | Equity | 100 |
| Total assets | 1,000 | Total liabilities and equity | 1,000 |
| **Income Statement** | | | |
| Interest earned | | | |
| On loans (15% * 800) | | | 120 |
| On securities (16% * 50) | | | 8 |
| Total income | | | 128 |
| Interest paid | | | |
| On savings accounts (10% * 300) | | | 30 |
| On borrowed funds (8% * 500) | | | 40 |
| Total interest paid | | | 70 |
| Gross margin | | | 58 |
| Administrative costs (4.8% * 1000) | | | 48 |
| Profit (before tax) | | | 10 |

## 3.1 Base Case Scenario

The OSS is calculated as: $128/(70 + 48) = 128/118 = 108\%$. The MFI has an OSS exceeding 100 per cent and is therefore 'operationally self-sufficient' according to the definition of the OSS.

## 3.2 Scenario 2

The MFI became more efficient by reducing its administrative cost from 48 to 40, but at the same time its financial cost went up due to becoming less dependent on subsidised credit. Specifically, interest rate on borrowings went up from 8 to 12 per cent, so total financial costs went up by 20 to: $10\% * 300 + 12\% * 500 = 90$. The OSS has changed to: $128/(90 + 40) = 128/130 = 98.5\%$. The revised OSS under scenario 2 does not reflect the fact that the MFI has become more efficient. In fact, because of the elimination of concessionary

borrowings, it now appears to be less efficient, and it appears as if revenue no longer covers all costs.

### 3.3 Scenario 3

The MFI has not changed its operational efficiency but its concessionary borrowings of 500 were replaced by donated equity which reduced its financial cost by 40 to: 10% * 300 = 30. The OSS has changed to: 128/(30 + 48) = 128/78 = 164%. The revised OSS indicates a substantial improvement in operational self-sufficiency, although nothing has basically changed in terms of operational efficiency.

As illustrated above, there are two factors that impact the denominator of the OSS making it an unreliable measure of self-sufficiency. The first factor is the subsidy embedded in concessionary borrowings, because only the actual (accounting) cost of borrowings enters the denominator of the OSS. Consequently, the higher the spread between the market interest rate and the concessionary rate paid by the MFI, the higher is the OSS. The second factor is the subsidy embedded in the equity of the MFI. Because equity is considered a cost-free item, the higher the equity-to-assets ratio, the higher the OSS ratio.

It is clear from the above examples that the term 'operational self-sufficiency' is inappropriate because *self sufficiency* as measured by the OSS can often be reached or improved by increasing the flow of subsidies. A more appropriate term for the OSS may be: Overall Cost Coverage (OCC) as it measures overall revenue against unadjusted costs. The point regarding the name for the OSS is not merely semantic because it is generally viewed as indicating operational self-sufficiency and used by practitioners and academics as a proxy for performance (see Crabb 2008; Hartarska 2005; Mersland and Strom 2009).

## 4. Conclusions

The aim of this short article is to draw attention to agency conflicts in the microfinance industry and how these may affect the reporting practices of MFIs. Concerns are being raised regarding regulations

of the microfinance industry and the choice between external and self-regulation (see Gallardo 2002; Van Greuning et al. 1999). In this context, we point to the tremendous developments in the provision of standardised and detailed information on MFI's social and financial performance by the microfinance industry. These initiatives promote transparency and help in integrating the microfinance industry into the formal financial system. However, we point to some weaknesses of the self-reporting system that are rooted in conflicts of interests.

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