Governance Quality and MFIs Repayment Performance

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How is MFIs governance quality measured? What is the relationship between MFIs governance quality and repayment performance? This paper sheds light on these questions while using data from 250 African MFIs. While using linear multiple regression, we find first, that better governance can be measured by an aggregated index which encompasses a series of criteria based essentially on binary data. Indeed, this index aims to determine to what extent the observed units are managed on commercially viable bases. Second, we give the first evidence on the impact of the governance quality on the repayment performance. Our results show a negative link between the governance quality and the percentage of portfolio at risk (a proxy of the MFIs repayment performance) indicating that the governance quality improves the repayment performance within MFIs.

1. Introduction

During the last two decades, there is a tremendous development of the microfinance industry and its role in the economic growth of developing countries. This 'success' has been largely based on the ability of microfinance institutions (MFIs) to grant small loans to those excluded from the formal banking sector due to lack of collateral. However, the microfinance institutions (MFIs) find themselves in a critical situation because of lower repayment rate. The non repayment problems are thorny. They put in danger the viability and the sustainability of the MFIs that, after granting loans, fail to cover their capital.

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In this framework, several studies try to shed lights on the main determinants of repayment performance within MFIs. Generally, these determinants include personal's characteristics (e.g. age, education, gender, marital status, experience) and loans' characteristics (e.g. credit rationing, loans size, interest rate). Besides, other studies (see, for example, Honlonkou et al., 2006; Ben Soltane and Trigui, 2008) dealing with the same subject provide evidences that the MFI type contribute to the improvement of loan repayment performance. The authors attribute this fact to the risk taking policy, borrowers tracking policy and governance quality. Consequently, it seems relevant to investigate the role played by the governance mechanisms in the determination of repayment rate.

The governance, for the MFIs, is an essential factor of success or failure which stays up to this moment unquestioned and systematically neglected by researchers especially when it comes to repayment. This paper attempts to fill this gap in the literature by answering the question how governance quality influences repayment performance within African MFIs? The choice of this context to lead this research is justified by the fact that the African continent includes a broad range of diverse and geographically dispersed institutions that offer financial services to low-income clients: non-governmental organizations (NGOs), non-bank financial institutions, cooperatives, rural banks, savings and postal financial institutions, and an increasing number of commercial banks.

In our knowledge, this paper gives the first evidence on the impact of governance quality on the MFIs repayment performance since earlier studies (Hartarska, 2005; Coleman and Osei, 2008; Ben Soltane, 2009; Mersland and Strøm; 2009) investigate the link between governance and MFIs performance in terms of outreach and sustainability. Moreover, and in order to measure the governance quality of MFIs we constructs a composite index which is an aggregate measure of nine dimensions.

The remainder of this paper will be structured as follows. The second section discusses the specificities of governance mechanisms in MFIs and provides an overview of the empirical literature. The third section presents research hypothesis. The data and the econometric approach will be presented in the fourth section. The fifth section presents the

results and the last section concludes and discusses the study implications.

2. Governance of MFIs: a general overview

In the microfinance field, governance can be defined as the process of guiding an institution to achieve its objectives while protecting its assets (Shleifer and Vishny, 1997; Campion, A. and Linder, C., K. Knotts, 2008; Hatarska, 2005; Ben Soltane, 2009). It refers to the mechanisms through which donors, equity, investors and other providers of funds ensure themselves that their funds will be used according to the intended purposes (Hatarska, 2005). As regard to the divergence of preferences and objectives between managers and providers of funds (Labie, 2005; Mersland and Strøm, 2009), the mission of governance mechanism is to reduce agency costs by aligning the objectives of the donors principal with the objectives of the manager agent (see Figure 1).
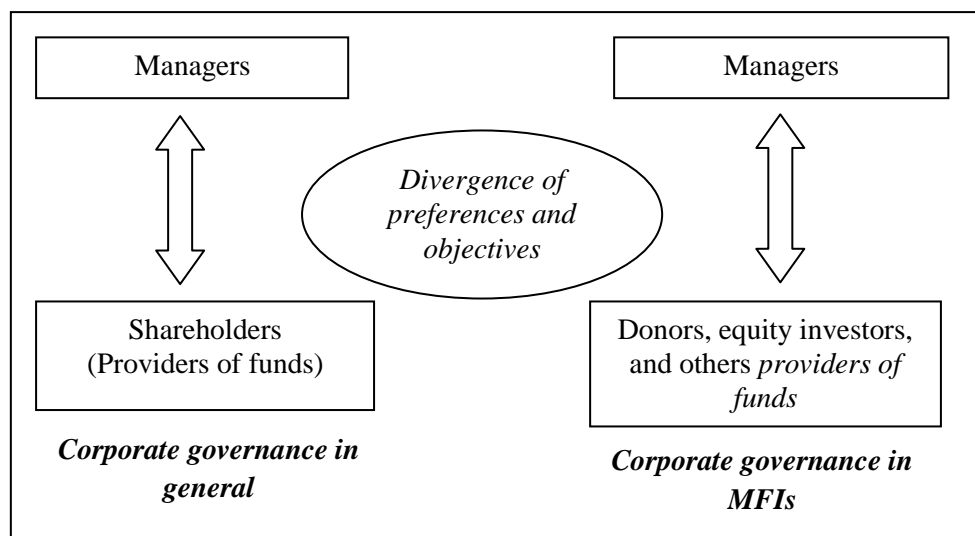

Figure 1. The mission of governance mechanism

In microfinance, the agency problems become so severe particularly when we integrate the double vocation of reaching poor borrowers (outreach) in order to contribute to the development of concerned countries (Helms 2006; Johnson *et al*. 2006), and being financially sustainable (sustainability). While the social goals of reaching the poorest and poverty alleviation are valid, financial sustainability has

emerged as one of the core management and governance issues. The shrinking resources base for donor funds to support the increasing demand for grants and soft loans implies that MFIs will eventually have to support themselves (Ledgerwood 1999). However, their sustainability will focus on governance structures within the industry. Indeed, as Labie (2001) observes, in the last decade corporate governance principles have imposed themselves as the basic rules for any well-run company to follow. The trend has however transcended from traditional business companies but now is part of the globalization process often seen as a tool for standardizing the controlling vision for any major organization in the world. The drive towards governance has been propelled by a number of factors, particularly the collapses of some of the major players in the industry, the influx of private equity and the fall in donor funding.

Many studies have been dedicated to the link between governance and MFIs performance. In fact, the study of Mersland and Strom (2009), in which the authors use recently released data from third-party rating agencies yielding a unique dataset of 278 MFIs from 60 countries between 1998 and 2007, found a positive link between the governance quality and the MFIs performance measured by the ROA (Return on Assets). In other words, the improvement of the quality of MFIs governance can serve as a leverage to increase their efficiency (Rock et al., 2001; Labie, 2001). In the same way, Coleman and Osei (2008) examine how selected governance indicators impact on performance measures of outreach and profitability in microfinance institutions. Their study shows that governance plays a critical role in the performance of MFIs and that the independence of the board and a clear separation of the positions of a CEO and board chairperson have a positive correlation with both performance measures. These results confirm those obtained by the studies dealing with the banking firms which also showed that governance mechanisms are positively correlated with performance (Louizi, 2006 ; Marsal and Bouaiss, 2007). However, two other studies carried with a reduced sample of MFIs respectively from Mediterranean Countries and Central and Eastern Europe obtained mitigated results (Hartarska, 2005; Ben Soltane, 2009).

3. Research Hypothesis

Following the recent literature on corporate governance in the classic bank sector (Louizi, 2006; Marsal and Bouaiss, 2007), some studies show evidence of a strong correlation between the governance quality of microfinance organizations and their performance (Rock et al., 1998; Labie, 2001; Drake and Rhyne, 2002; Mersland and Strøm, 2009). Moreover, Honlonkou et al., (2006) attributed the improvement of loan repayment performance to the MFIs governance quality. Thus, we presume that the governance quality is positively correlated with the repayment performance.

Hypothesis $_1$: The governance quality affects positively the MFIs repayment performance.

Fama and French (1993) argue that size may negatively affect firm performance. Some studies such as Berman, Wicks, Kotha and Jones (1999), Hoskisson (1987) and Keating (1997) observed a positive impact of size on firm performance, while others (O'Neill, Saunders and McCarthy, *1989*, 1989; Westphal, 1998; Wu, 2006 and Zajac, 1990) revealed that there is mixed or no significant size effects. However, in the microfinance field, it has been shown in numerous studies (Coleman and Osei, 2008; Ben soltane, 2009) that large MFIs have the ability to accommodate risk and to enhance productivity through diversification of products and services. Therefore, we suppose that the MFIs size will be positively correlated with the repayment performance.

Hypothesis $_2$: The MFI size will be positively correlated with the repayment performance.

As regards to MFI age, Coleman and Osei (2008) found a negative impact of MFI age on its performance. The authors attribute this result to the simple reason that microfinance services do not necessarily follow the formal relationship of age and reputation because of the complex and specialized nature of their functions. Similarly, Loderer and Waelchli (2009) give evidence that performance gets worse with age since old age may make knowledge, abilities and skills obsolete and induce organizational decay. However, earlier study by Ben Soltane (2009) showed that the MFI age is negatively correlated with the default

probability. Consequently, we suppose that the MFI age will affect positively the repayment performance.

Hypothesis 3:   The MFI age will affect positively the repayment performance.

Addressing the question of the relative performance of group loans compared to individual loans and using data from Zimbabwe, Bratton (1986) states that group loans perform better than individual loans in years of good harvest and worse in drought years when peers are expected to default. In contrast, and although Armendariz de Aghion and Morduch (2005) point out that group lending may increase the repayment rate because it leads to positive assortative matching, recent work by Ben Soltane (2009) demonstrates that the use of individual lending lead to a better performance. In the light of these findings, we suppose that the individual lending methodology will affect positively the MFIs repayment performance.

Hypothesis 4: The use of the individual lending methodology will affect positively the MFIs repayment performance.

4. Data description and methodological issues

Our sample consists of 250 African Microfinance institutions that figure in the MIX MARKET database (www.mixmarket.org), which is the most renowned database. These MFIs are chosen from different countries (Tunisia, Morocco, Egypt, Benin, Nigeria, Uganda, Tanzania, Ethiopia, Ghana, Guinea, Côte d'Ivoire, etc). The choice of these institutions is justified by the fact that microfinance in the African continent is a very developed, growing and dynamic sector characterized by a variety of MFIs. The data will be used in this study stems also from various sources. They are principally, the MFIs website and from five rating agencies MicroRate, Microfinanza, Planet Rating, Crisil, and M-Cril, and their reports can be found at www.ratingfund.org.

Our empirical model will be estimated as follows:

$$RP_i = \alpha_0 + \alpha_1\, GOVQi + \alpha_2\, \text{Control variables} + \delta_i$$

Where:

- RP: is the rate of repayment performance measured by the percentage of portfolio at risk > 30 Days.

- GOVQ: governance quality is measured by an aggregated index.

- Control variables: these variables are MFIs size, MFIs age and the use of the individual lending methodology.

The purpose of this study is to test the effect of MFIs governance quality on repayment performance. Thus, our dependant variable will be estimated by the percentage of portfolio at risk > 30 Days. The portfolio at risk (PAR) tells us how well the MFI achieves its basic goal of lending money and getting it back. Besides, this method is used by the Consultative Group to Assist the Poor (CGAP) as a basis of comparison between the best microfinance institutions worldwide.

Concerning the governance quality index and as regards to the heterogeneity of MFIs in our sample, it seems relevant to refer to the studies conducted by the World Bank (WB) and the International Monetary Fund (IMF) which compared the quality of the management of organizations issued from many business sectors. Among these studies, the IMF (2004), Briceno-Garmendia and Foster (2007) and Mbangala (2007) suggest an aggregated index of governance that combines a series of criteria based essentially on binary data. Indeed, this index aims to determine to what extent the observed units are managed on commercially viable bases. These criteria cover several dimensions among which four require a particular attention, because of the possibilities of application they offer to the microfinance industry. Consequently, nine criteria are considered and summarized in Table 1.

Among the advantages of the aggregated index of governance, it is necessary to note its capacity to integrate the variety of governance dimensions (Briceno-Garmendia and Foster, 2007). In addition, and from a methodological point of view, it is simple to implement; simplicity in particular based on its appeal to binary variables. However, it is necessary to be conscious that this simplicity hides the risk to exclude relevant variables of analysis which would not be binary. Besides, if for certain variables of the aggregated index, a binary status seems to be acceptable, for several others, the reality corresponds clearly more to multiple positions establishing rather a continuum. It is in

particular the case of respect of prudential standards, the independence towards public authorities, coherence of the manual of procedures and the board of directors autonomy. This remark shows the interest to complete the analysis of the governance index so defined, by integrating quantitative variables of governance.

Table 1. The dimensions of the MFIs governance quality

Dimensions	indicator	modality
Legislation respect	Authorization to exercise	1 if the MFI is authorized, 0 if not
	Respect of prudential standards	1 if 100% of prudential standards are respected, 0 if not
Managerial autonomy	Towards public authorities	1 if independence towards public authorities, 0 if not
	Towards donators	0 if there is a donators influence, 1 if not
Information system quality	Coherence of the manual of procedures	1 if there is coherence of manual, 0 if not
	Audit Report Availability	1 if the audit report is available, 0 if not
	Participation in an international evaluation	1 if the MFI participates to an international evaluation, 0 if not
Board of directors	the Separation of Chairman and CEO Roles	1 if there is a separation of powers, 0 if not
	Decision-making power	1 if the Board of directors is autonomous, 0 if not

Source: Adapted from IMF (2004), Briceno-Garmendia and Foster (2007).

As regards to the control variables and due to our recognition of the fact that, we are inadequate to fully specify MFI's performance model, we include the following as control variables; MFI size measured by the value of net total assets, MFI age measured by the number of years of operation using year of incorporation as reference and the lending methodology: a dummy that equals 1 if the MFI use individual lending methodology and 0 otherwise. The variables used in this study are presented in Table 2.

Table 2. Definition of independent variables

Variable	Explanation
Governance quality	Aggregated index
MFI size	Logarithm of the total assets of the MFI
MFI age	Number of years since the commencement
Lending methodology	A dummy that equals one if the MFI used individual lending methodology and zero otherwise

The descriptive statistics for this study are shown in Table 3. Notably, we have complete records of data for 250 MFIs. The MFIs of our sample have a mean value of portfolio at risk equal to 8.2%. The average of the governance index is 79.5%. This means that in general the observed MFIs meet a little more seven of the nine criteria that would be required for effective governance. The descriptive statistics show that the MFIs are young with a mean age of 7 years and the individual lending technology constitutes 69.5% of the cases.

Table 3. Descriptive statistics (N = 250)

Variable	Mean	Std	Min	Max
Percentage of portfolio at risk > 30 Days	0.082	0.119	0.000	0.870
Governance quality (Aggregated Index)	0.795	0.632	0.687	0.905
MFI size	18.402	3.209	6.420	24.810
MFI age	7.575	3.654	5	16
Individual lending methodology	0.695	0.475	0	1

Source: Authors' estimates

5. Discussions of empirical findings

As shown in Table 4 dealing with the estimation of the impact on repayment performance, our first hypothesis stipulating that the governance quality is confirmed. The coefficient of Governance quality is negative and significant at the 10 percent level. This negative correlation indicates that the governance quality contribute to the reduction of the percentage of portfolio at risk and decreases the

likelihood of repayment problems. Indeed, and due to a good governance, MFIs become more efficient and conscious of risk management issues. Our results are in line with CGAP (2006) and Rock et al. (1998) who assert that good governance is the key to a successful MFI.

Good governance, which means guiding the institution to achieve its objectives while protecting its assets, allows reducing information asymmetry between donors and management which in turn affects the repayment rate. Thus, control mechanisms aim at preserving the interests of donors and equity investors, by guaranteeing a high repayment performance often presented by microfinance institutions as evidence of their success. Moreover, and according to Godquin (2004), high repayment rates are indeed largely associated with benefits both for the MFI and the borrower. They enable the MFI to cut the interest rate it charges to the borrowers, thus reducing the financial cost of credit and allowing more borrowers to have access to it. Improving repayment rates might also help reduce the dependence on subsidies of the MFI which would improve sustainability. It is also argued that high repayment rates reflect the adequacy of MFIs' services to clients' needs. Last but not least, repayment performance is a key variable for banks and other private investors who feel more comfortable investing in well-managed MFIs that adopt good governance practices.

As expected, the MFI size has a significant negative impact on the percentage of portfolio at risk. This may be due to the fact that a large firm has the ability to accommodate risk and to enhance productivity through diversification of products and services.

Contrary to what we have supposed and in conformity with Coleman and Osei (2008) and Loderer and Waelchli (2009), the results indicate that the MFI age increase the percentage of portfolio at risk. This fact can be attributed to the simple reason that microfinance services do not necessarily follow the formal relationship of age and reputation because of the complex and specialized nature of their functions. Moreover, old age may make knowledge, abilities, and skills obsolete and induce organizational decay.

Results indicate also that the lending technology improves considerably the financial performance of the MFIs and reduce the percentage of

portfolio at risk. This result can be attributed to the fact that the cost argument is more important than the repayment argument for group lending or village bank. From another point of view, it can be justified by the new tendency toward the individual microlending (Armendariz de Aghion and Morduch 2005), since this methodology becomes highly recommended (Armendariz de Aghion and Morduch 2000).

Table 4. Regression Results (N = 250)

Variable	Coefficients	t-statistics
Governance quality (Aggregated Index)	**-0.1927***	-4.23
MFI size	**-0.524****	-0.025
MFI age	**0.234*****	0.123
Individual lending methodology	**-0.411***	-0.063
Constant	**–2.22****	–4.03

Note: *, ** and *** denotes significant at 10%, 5% and 1% level, respectively.

5. Conclusions

This paper is part of the current literature considering the governance mechanism as an appropriate way of improving the MFIs performance (Hartarska, 2005; Coleman and Osei, 2008; Ben Soltane, 2009; Mersland and Strøm; 2009). It documents for the first time the relationship between governance quality and MFIs repayment performance while using data relative to 250 African MFIs.

Our results indicated that the governance quality, measured by an aggregated index, affect negatively the percentage of portfolio at risk > 30 Days: a proxy of the MFIs repayment performance. Therefore, the quality of microfinance governance is a key issue for all MFIs. One piece of evidence that supports this is the crucial role of this mechanism (governance quality) in protecting the MFIs from the operational risks, including credit risk (that can affect portfolio quality) and security risk created by the possibility of fraud or theft, that are facing in their daily activities

The results demonstrate also that the MFI size improve the repayment performance within the MFIs. So, the large MFIs have the ability to

accommodate risk and to enhance productivity through diversification of products and services.

Results indicate also that the lending technology improves considerably the financial performance of the MFIs and reduce the percentage of portfolio at risk. Indeed, it seems from one hand that the cost argument is more important than the repayment argument for group lending or village bank. From another hand, it can be justified by the new tendency toward the individual microlending becoming highly recommended.

In conformity with Coleman and Osei (2008) and Loderer and Waelchli (2009), our results suggest that the MFI age increase the percentage of portfolio at risk. This fact can be attributed to the simple reason that microfinance services do not necessarily follow the formal relationship of age and reputation because of the complex and specialized nature of their functions. Moreover, old age may make knowledge, abilities, and skills obsolete and induce organizational decay.

These MFIs are invited to respect the prudential regulation in order to ensure the safety of clients and building healthy institutions for the development of the financial sector and finally improving their governance which in turn lead to a better repayment performance. These MFIs need also to be managerial autonomous towards public authorities and donators since this influence is an unfavorable factor in the governance quality. Finally, these MFIs are invited to reinforce the information system quality and the power of decision and control of the boards of directors.

Our study has certain limitations; foremost among them is the inability to test the impact of each dimension of the aggregated index on the MFIs governance quality. Second, our sample is of small size compared to the large number of MFIs in Africa. Hence, future researches are invited to shed light on the influence of each index dimension on the governance quality. In addition, it is appropriate to test our model with a larger number of MFIs in other context.

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