THE FINANCING ISSUE FOR AFRICAN MFIS: AN OVERVIEW OF MESOFINANCE EXPERIENCES

LUCIE FOTSA LIENO[1]

Abstract

This paper attempts to provide an explicit outline of mesofinance activities conducted in Africa. Twenty-six microfinance institutions (MFIs) are observed between 2008 and 2012, in 16 Sub Saharan Africa countries. The characteristics of these MFIs are analyzed, ranging from mesofinance programs to ultimate beneficiaries. By distinguishing small business loans patterns from loans granted for social inclusion, an empirical study is carried out using an ordered probit model, thus allowing us to observe how MFIs operate in the mesofinance economic model. The regression of panel data reveals that MFIs become involved in mesofinance according to their funding source or legal status.

Keywords: *Mesofinance, MFIs, small business lending, Africa, ordered probit.*

JEL: *C51, D82, F35, G21.*

1. INTRODUCTION

While microfinance signifies small-scale financial services (microcredits) offered to low-income families to help them develop their small businesses (see Le Portail Microfinance, 2010), mesofinance refers to the services situated at the level above microfinance. According to the *Agence française de développement* (AFD, 2011), mesofinance may be defined as the loan level between the credit limit in microfinance and the lowest level of banking credit. Organizations operating in mesofinance often begin by observing that individuals excluded from banking services can benefit from microfinance, while large companies are favoured by the traditional banking sector. On the other hand, small businesses, which are more equivalent to the upper customer segment of microfinance, continue to face funding difficulties.

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[1] Email: lulifo@yahoo.fr.

Several reasons may explain the low financing of small businesses. In terms of demand, they are unattractive because they are perceived as too risky on account of their limited equity, management shortcomings, and lack of detailed market and competition analyses (Derreumaux, 2009; Botzung, 1996). In terms of supply, banks do not possess adapted services for small businesses, as they lack skilled managers to monitor small businesses and handle the extensive processing of their files, or have an inadequate legal and judicial framework for these professionals to work in (Sanders and Wegener, 2006; Lefilleur, 2008).

As highlighted by the *Haut conseil de la cooperation internationale*, the creation of a new mode of financing is imperative. Thus, original economic models and intervention methods should be developed beyond the sphere of microcredit, namely toward mesofinance (HCCI, 2008, 41). Mesofinance requires real changes in the procedures of financial institutions so as to meet small business demand. It entails either upscaling MFIs in terms of the status and type of clientele or downscaling banks, but this process is not always consistent across countries. In some cases, the size of the credit is increased through the quantity of loans or amount of funds accorded. These variations nevertheless depend on the inherent characteristics of the different mesofinance programs implemented.

The studies conducted to date in mesofinance show that a range of business funding programs exists through MFIs. Some authors, such as Bendig, Unterberg, and Sarpong (2012), and Jung, Lahn, and Unterberg (2009), studied the mechanisms of microcredit development in microenterprises in Eastern and Western Europe, while others, such as Barro (2004), and Sanders and Wegener (2006), discussed the emergence of mesofinance in Africa. However, none of these studies discuss the catalysts that lead an MFI to grant larger microcredits to small businesses in the framework of mesofinance programs. The difficulty in proposing a clear schema for mesofinance activities thus brings us to the following question: how is the mesofinance economic model constructed?

The purpose of this study is therefore to provide an overview of the mesofinance model so as to analyze its inherent mechanisms. Using hypotheses based on the existing literature, a triangulation of quantitative and qualitative panel data is conducted to respond to the research question. In contrast to previous studies, an ordered probit model is used to analyze the characteristics of MFIs operating in mesofinance. These characteristics are taken into account while differentiating loans for social inclusion from those accorded to small businesses.

As to the remainder of this article, sections 2 and 3 are devoted to a litera-

ture review. Section 4 outlines the methodology of the study, while sections 5 and 6 respectively present the findings and conclusions drawn from our analysis.

2. LITERATURE REVIEW

2.1 Mesofinance as a new way to meet small business needs

In developing countries, small businesses appear to be off the mainstream financial radar screens (Barro, 2004; Honohan and Beck, 2007). As defined by the *Programme de renforcement institutionnel de la microfinance et de son environnement*, small businesses employ between one and 20 employees; this constitutes the SME financing gap (Epargne Sans Frontière, 2007), which is often called the "missing middle" (Sanders and Wegener, 2006, 7). Sanders and Wegener summarize the factors influencing the low financing of small businesses from both the demand (small business vulnerability in the business environment, high cost of capital for SMEs, exuberant collateral requirements, and lack of knowledge, education, and market information) and supply sides (underdeveloped financial institution structure, distorted lending infrastructure, and lack of information). Therefore, this business category is particularly poorly placed to meet the requirements of conventional financial systems.

Demonstrating that mesofinance can fill the missing gap in small business financing, Sanders and Wegener (2006) assume that it concerns financial services like loans, capital, and guarantees offered to small businesses in developing countries. For these authors, mesofinance services are aimed at the first three phases of the business life cycle: start-up, survival, and growth. According to the AFD (2010, 3), "mesofinance meets financing needs not covered by small African businesses, which can range from EUR 2,000 to EUR 100,000." Combining economic efficiency and social performance, certain European financial institutions grant mesocredits abroad, with the average amount being much greater than those associated with microfinance (Banque de France, 2009). Such is the case with the French banks Société Générale and Crédit Mutuel, to mention only those which are mainly involved in Africa.

Mesofinance therefore represents a business financing sector that could be developed by banks or MFIs. It does not implicate the emergence of a new institution situated between a bank and MFI (Mayoukou, 2010, 154), but rather the evolution of MFIs or adaptation of banks so as to move into the neglected SME market (Lhériau, 2005). That is why microcredit development programs have a dual purpose (Jung *et al.*, 2009). First, they seek to support banks in extending their services to the upper customer segment of microfi-

nance, which is a near-bankable group. Second, they intend to encourage non-bank financial institutions (NBFIs) to serve the lower customer segment, i.e. the non-bankable.

2.2 Ability of MFIs to shift from microcredit to mesocredit

In the framework of inclusive financial sectors, MFIs are potentially useful in filling the gap in short-term financing, thus helping individuals to avoid resorting to informal money lenders. They may also be a source of financing for microenterprises or SMEs. Despite their insufficient financial resources, MFIs possess a good knowledge of small entrepreneurs and an extensive experience in working at a local level (Lefilleur, 2009); this proximity is lacking with traditional banks despite their more substantial resources. Nonetheless, MFI upscaling, their closer collaboration with traditional banks, and bank downscaling may ensure the financial sustainability of MFIs (Seck, 2009). As Kauffmann (2005) affirmed, the SME financing gap has already been filled, in part, by MFIs. Following regulatory changes, MFIs have been able to extend their lending activities to SMEs, mainly by increasing the maximum loan amount and extending the maximum loan maturity (OECD, 2006, 53).

The boundary between mesofinance and microfinance appears to be the loan size relative to gross domestic product (GDP) per capita. Rosenberg (2009) considers an average outstanding loan balance below 20% of gross national income (GNI) per capita to be a broad indication that the clients are very poor. Moreover, the World Bank and Consultative Group to Assist the Poor (CGAP) define microcredit "as having an average outstanding loan size less than three times GDP per capita" (Pearce, 2011, 8), while according to the World Bank, a microcredit does not exceed 30% of GDP per capita (Lelart, 2005, 25; Mayoukou, 2010, 160). Balkenhol (2008) defines mesocredit as an average loan up to 250% of GDP per capita. If the average loan size granted by an MFI exceeds 250% of GDP per capita, one can say that it focuses on the SME market. For Bendig *et al*. (2012), a mesocredit in developed countries (Western Europe) with a GNI per capita superior to EUR 20,000 corresponds to a loan of up to 33% of GNI per capita. With regard to the relatively less developed countries (Eastern Europe) with a GNI per capita inferior to EUR 20,000, a mesocredit comprises a loan of up to 66% of GNI per capita. The latter is higher because the loan amounts to small businesses are surprisingly greater than those in countries with a high GNI.

Table 1 below summarizes some of the characteristics of the MFIs offering mesocredit in Sub-Saharan Africa.

Table 1: *Pioneer MFIs (2011)*

MFI (launching year)	Country	Number of observations by country	Legal status	Average loan amount to small businesses (in USD)	Average loan amount to small businesses / GNI per capita (in %)
COMUBA (2000)	Benin	6	Cooperative (or Credit Union)	1529.57	176.76
LSK (2005)	Burkina Faso	4	Cooperative	406.54	73.33
ACEP (1999)	Cameroon	6	NBFI	2,781.97	210.65
CAPPED (1991)	Congo, Republic of*	2	NGO	1,096.92	55.62
CPECG Yete Mali (1997)	Guinea	2	Cooperative	543.87	139.29
MicroCred-CIV (2009)	Ivory Coast	4	NBFI	1,777.72	152.27
Equity Bank (1984)	Kenya	6	Bank	9,012.15	1,043.13
MicroCred-MDG (2006)	Madagascar	4	NBFI	1,038.41	256.53
Hluvuku (2001)	Mozambique	8	NGO	538.14	97.60
MECREF (1996)	Niger	3	Cooperative	1,125.14	266.96
AccessBank-NGA (2008)	Nigeria	1	Bank	901.73	64.37
MicroCred-SEN (2007)	Senegal	6	NBFI	465.52	38.19
Akiba (2007)	Tanzania	9	Bank	2,633.40	492.56
MGPCC DEKAWOWO (2000)	Togo	7	Cooperative	1,034.77	189.02
FINCA-UGA (1992)	Uganda	6	NBFI	351.05	77.55
AB Bank Zambia (2011)	Zambia	1	Bank	1,234.37	104.01
–	**Total number of observations**	**75**	**Mean (non- weighted)**	**1,6154.45**	**214.87**

Source: MIX Market; calculations made by the author.
* 2008 data. NGO = Nongovernmental organization, NBFI = Non-bank financial institution.

3. FACTORS OF MESOCREDIT SUPPLY

Organizations engaged in financial inclusion do not necessarily share the same perspective, as such financial institutions differ with respect to several factors, such as funding sources, legal status, scale, and motivation (Ledgerwood, Earne, and Nelson, 2013). Appreciating their role in the financial services landscape is an important step when determining what organizations should do and how they should do it.

3.1 Funding source

As the microfinance industry grows, the risks and returns for different market actors likewise evolve. Donors need to respond to these changes while working to support the development of inclusive financial markets, which include the missing middle of SME financing. Indeed, donor funding is often intended for financial intermediaries who wish to develop mesofinance activities (AFD, 2013). An analysis of mesofinance programs in Africa reveals that funds usually derive from various partnerships between organizations interested in promoting the development of small African businesses, particularly in the solidarity finance sector (Négui and Gorse, 2009). To name but a few[2], the cooperative venture capital company Garrigue and the non-profit association of international solidarity Tech Dev, the established BiD Network and its investors, and finally, the Belgian investment company for developing countries (BIO) and the Centre for Development of Enterprise (CDE).

However, the ways in which donor funding is delivered has a profound impact on its effectiveness. Using the right tools can act as a catalyst, allowing financial services providers to meet small business needs. Among donor tools, grants "are increasingly relevant for building market infrastructure and supporting policy and regulatory reforms, particularly when we begin to think beyond microcredit" (Ledgerwood *et al.*, 108). However, while grants can be used to deliver a time-limited nudge to the market, they carry the risk of distorting markets and incentives. One might consider that grants negatively impact financial providers after a certain time.

Bekolo and Beyina (2006) stress the importance of risk capital, which, unlike grants, as an equity investment often ties the donor into a long-term relationship with the supported institution. This situation can incentivize shareholders to become involved in offering loans to small businesses. In-

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[2] Information collected by the author from Garrigue, BIO, and BiD Network websites.

deed, equity as a form of financing has important advantages over other financial instruments with regard to governance and creating appropriate incentives for managers (McKee, 2012). An objection is sometimes raised that a new institution may be loss-making in the early years of its development. However, this barrier may be overcome by rolling up the projected losses into the overall level of equity investment required. In this context, the equity could positively impact the credit supply of the missing middle.

Beyond grants and equity investments, loans to governments can be used for onward lending to retail financial services providers via wholesale financial institutions. Such loans can have maturities of 11 years or more, making them an effective tool for long-term support (Ledgerwood *et al.*, 2013). However, loans to governments are not adapted to provide support to private sector actors, and the funder has little control over how projects are managed and implemented. Thus, loan funding can only weakly assist financial services providers to fill the SME financial gap.

From the literature on the consequences of donor funding tools, the first hypothesis (H1) can be outlined: loans to small businesses are better developed when shareholders providing the equity investment constitute the main funding source for financial services providers.

3.2 Status of financial services providers

According to the key characteristics of institutional services providers given by Ledgerwood *et al*. (2013, 173), the activity level of a financial service provider depends on its legal form, aside from its ownership and governance structure, and the types of clients it serves. The OCDE (2004) highlighted that the financial institutions associated with SMEs include banks, leasing and insurance companies, and MFIs. However, MFIs encompass a broad range of financial organizations, such as banks, NBFIs, financial cooperatives, finance companies, and nongovernmental organizations (NGOs), all specializing in serving those who lack access to traditional financial services.

Among these organizations, the cooperative financial status of savings and credit cooperatives (or credit unions) implies a member-owned financial services provider. They serve a range of clients depending on their members and offer basic savings and credit facilities. If profitable, financial cooperatives either reinvest their excess earnings in the cooperative or return them to members in the form of dividends. These measures sometimes translate into more affordable loans or higher returns on savings for members as compared to other institutional providers (WOCCU, 2011). This may be especial-

ly interesting for small businesses to which loans may be offered at a lower interest rate.

As financial services providers, NGO MFIs traditionally offer a standard microenterprise loan for investment in productive activities to individuals or groups. According to Sanders and Wegener (2006, 13), "NGOs have networks in place where others have no networks", but they lack commercial insight and professional business management skills. They have become less prominent in microfinance, largely because of their inability to provide savings facilities and the difficulty in covering their costs and funding growth. Although multipurpose NGOs offer credit, they serve a relatively small number of clients. NGO MFIs therefore seem unable to grant mesocredit to small businesses in an effective way.

Deposit-taking MFIs have the institutional structure and regulatory approval required to mobilize and intermediate deposits. They can also offer credit, savings, and insurance payment services. The terms of their services may be modified according to the client's needs, which include those of small businesses, excepting the underserved individual needs (Ledgerwood *et al.*, 2013). In addition to specialist deposit-taking MFIs, other NBFIs include insurance companies, leasing companies, and so forth. Their clientele varies depending on the type of products. Since small businesses are especially concerned by these types of products, NBFIs could well intervene in this missing middle financial gap.

Many types of banks are also engaged in microfinance, including rural banks, postal and savings banks, state banks, and commercial banks. Since banks are normally licensed and regulated, commercial banks offer savings, credit, payment facilities, and sometimes insurance. As Ledgerwood et al. (2013, 188) note, "while transforming NGO MFIs and downscaling existing commercial banks can be effective for increasing financial inclusion, greenfielding – the start-up and creation of new microfinance banks – is another approach whereby a formal bank is created with financial services dedicated entirely to the micro, small, and medium-size enterprise markets." Moreover, Berger and Black (2010) found that large banks have a higher comparative advantage in lending to small businesses with low financial transparency, by replacing collateral by company financial statements.

Based on the literature review of financial services providers connected to small businesses, the second hypothesis (H2) can be formulated: institutions (such as cooperatives, NBFIs, and banks) that are able to offer savings facilities as well as other financial services are more likely to offer mesocredits.

In order to verify these two hypotheses, it is important to test them through an empirical analysis.

4. RESEARCH DESIGN

4.1 Data and sample

To conduct this analysis, data were obtained from the Microfinance Information Exchange Market (MIX Market). The MIX Market database contains detailed data on the performance of MFIs, funders, networks, and service providers dedicated to serving the financial needs of low-income clients. This financial and social performance data includes approximately 2,100 MFIs around the world.

To understand how MFIs operate in the mesofinance economic model, data relating to African MFIs providing loans to small businesses or SMEs were collected. These data concerned the loan size, main funding source, and current legal status of MFIs. Control data included MFI age and meso-credit share in the outstanding portfolio.

The dependent variable (*mesofmi*) was assigned to measure the average size of loans to small businesses relative to the GNI per capita of the country in question. This variable was divided into three consecutive categories: the first was situated below the observed average, the second included it, and the third surpassed it. Thus, *mesofmi*, qualified as a "loan that can be a sizeable mesocredit", was assigned the values of 1 to 3 if the average loan size was respectively included in the brackets]30%, 60%],]60%, 150%], and]150%, max] of the GNI per capita.

Bendig *et al*. (2012) show the importance of considering the GNI per capita. These authors examined the development of microcredit in Europe through the European Microfinance Network's survey of 154 MFIs from 32 Western and Eastern European countries. As the loan amounts were higher in the case of microenterprise lending, they deduced size to be the determining criterion in the analysis. However, the loan size indicator is limited, because it is linked to the level of economic development in a given country. Indeed, the loan amount may be relatively higher in developing countries than in developed countries. For this reason, the average size of loans offered by MFIs is adjusted in relation to the GNI per capita.

Besides, we should reconsider two points in the model of Bendig *et al*. (2012). First, the type of loan granted appears to be linked to the total annual number of loans; thus, the average amount of loans to microenterprises is higher when an MFI grants a small number of them proportional to its total portfolio. Hence, it would seem that MFIs operating in mesofinance either offer very few loans or are obliged to reduce the overall number. So as to control this, a variable was introduced with regard to the mesocredit share in the MFI outstanding portfolio. Second, social inclusion and microenterprise

lending are both taken into account when calculating the ratio of the "average amount of loans / GNI per capita." Although this ratio appears higher among MFIs who tend toward the microenterprise lending model, basing the calculations on all loans (in total) could lead to a skewed vision of the magnitude of the mesofinance phenomenon. For this reason, small business loans were distinguished from social inclusion (or personal) loans.

Among the independent variables, the four binaries representing the main funding sources were *lfs*, *gfs*, *shls*, and *sfs*, respectively indicating that the MFI's main funding sources were loans (1 = yes, 0 otherwise), grants (1 = yes, 0 otherwise), shareholder funds or equity (1 = yes, 0 otherwise), and savings (1 = yes, 0 otherwise). The reference variable was *sfs*. Furthermore, the four binaries representing the current legal status of the MFI were *lst1*, *lst2*, *lst3*, and *lst4*, respectively indicating the status of NBFI (1 = yes, 0 otherwise), bank (1 = yes, 0 otherwise), NGO (1 = yes, 0 otherwise), and cooperative (1 = yes, 0 otherwise). The reference variable was *lst4*. The analysis also included the *mesoshar* variable (representing the share of mesocredit offered in the MFI's outstanding portfolio) and the *age* variable (MFI age).

The initial study sample comprised 244 MFI observations collected and saved in a new database specially created for this purpose. The panel data related to the period spanning from 1997 to 2013. After excluding a number of observations on account of missing values – mostly relating to the average amount of loans to small businesses and the MFI's legal status – the decision was made to limit the study to 75 observations relating to 26 MFIs observed between 2008 and 2012. The final sample thus included 16 African countries (see Table 1). MFIs were selected on the basis of the number or amount of loans granted. These MFIs position themselves in the mesofinance sector by providing loans to small businesses.

To avoid bias, the study attempted to present mesofinance activities while confirming the notion according to which MFIs operating in mesofinance grant fewer loans in general than those operating solely in microfinance. For this purpose, the emphasis was given simultaneously to MFIs with the highest ratio of "average amount of loans / GNI per capita" and those granting the largest number of loans to small businesses.

4.2 Empirical model

This study uses the ordinal regression model presented as a latent variable model. If y_i^* is defined as a latent variable ranging from $-\infty$ to ∞, the structural model is as follows:

$$y_i^* = X_i\beta + \varepsilon_i \qquad (1)$$

where i is the observation and ε a random error.

The continuous latent variable is considered as the propensity to grant a loan more than a microcredit in a given country. The three observed bracket categories to which the average amount of loans belongs are linked to the latent variable by the measurement model:

$$y_i = \begin{cases} 1 & if\ \tau_0 = -\infty \le y_i^* < \tau_1 \\ 2 & if\ \tau_1 \le y_i^* < \tau_2 \\ 3 & if\ \tau_2 \le y_i^* < \tau_2 = \infty \end{cases} \qquad (2)$$

where τ_1 and τ_2, are two cutpoints leading to the three levels of y.

Using an ordinal probit regression model, the following model may be estimated:

$$\Pr\left[(mesofmi = m \mid X_2 i) = 4)\right]\ F\ [(\tau_1 m - X\beta) - F\ (\tau_1(m-1) - X\beta)] \qquad (3)$$

where F is the cumulative density function (cdf) of ε evaluated at given values of the independent variables, and m is the number of bracket categories (1 to 3).

$$X\beta = \beta lfs + \beta gfs + \beta shls + \beta lst1 + \beta lst2 + \beta lst3 + \beta age + \beta mesoshar \qquad (4)$$

Table 2 below summarizes the expected signs of the independent variables.

Table 2: *Variables and expected signs*

Type of variable	Variable name	Indicator	Codification	Expected sign
Dependent variable	Loan to small businesses	Size	*mesofmi*	+
Independent variables	MFI funding source	Loans	*lfs*	–
		Grants	*gfs*	–
		Shareholder capital funds	*shls*	+
	MFI legal status	NBFI	*lst1*	+
		Bank	*lst2*	+
		NGO	*lst3*	–
	MFI age	Age	*age*	+
	Mesocredit share in the MFI outstanding portfolio*	Ratio "amount of mesocredits offered / outstanding portfolio"	*mesoshar*	–

Source: author based on the literature review.

* The expected sign of the variable *mesoshar* corresponds to the analysis of CGAP (2009). When markets develop and more people gain access to credit, the average loan size relative to the country's GNI per capita decreases.

Before taking the value of 1 to 3, *mesofmi* is a variable indicating the average amount of small business loans based on the GNI per capita. In the study sample, the mean of this variable was 159.95% of GNI per capita, while the mean GNI per capita corresponded to USD 730.97.

The mesocredit share in the MFI outstanding portfolio represented an average of 73.57%. Moreover, the mean age of the surveyed MFIs was 13.95 years.

According to the frequency distribution for the *mesofmi* variable, 18.67% of MFI credits were less than 61% of GNI per capita, 40% between 61% and 150%, and 41.33% greater than 150% (see Table 4 in the appendix).

5. RESULTS

5.1 Influence of funding sources and legal status

The coefficient signs presented in Table 3 show that the probability of an MFI providing a loan greater than a microcredit increases significantly when the MFI's main funding sources are loans (1.85), grants (0.95), or equity (1.84), as opposed to savings. This probability similarly increases with the MFI age (0.05). These results were expected with regard to age and equity as the main funding source, but not for the variables of loans and grants.

However, the likelihood of a loan being a mesocredit decreases when the MFI is an NBFI (-1.68), a bank (-1.67), or a NGOs (-1.27), as opposed to a cooperative. This result was expected only for the status of, but not for NBFIs or banks.

The estimation of the underlying model with τ_j thresholds (denoted *_cutj*) tests the relevance of the cutpoints (*_cut1 and _cut2*). The tests revealed that a model in which the dependent variable (*mesofmi*) categories are aggregated would not be relevant for the second cutpoint (*_cut2*), since the increase from category 2 to 3 is significant (null hypothesis, *Ho*: $\tau_1 = \tau_2$, is rejected).

The main marginal effects are given in Table 5 (see appendix). For MFIs offering loans in the]30%, 60%] interval of GNI per capita, the effect of loans, grants, and equity (shareholder funding) as main funding sources was -0.39, -0.13, and -0.31, respectively. Then, if funding comes from these sources as opposed to savings for this bracket, there is a lower probability by 39%, 13%, and 31%, respectively, that the MFI grants the credit. As to the effect of NBFI, bank, and NGO statuses on this credit bracket, an MFI with these statuses has a higher probability by 41%, 41%, and 29%, respectively, of offering credit as compared to a cooperative. The effects of age and mesocredit were insignificant in this bracket.

Table 3: *Influence of independent variables*

Dependent variable: *mesofmi*		
lfs	1.851 ***	(4.11)
gfs	0.950 ***	(3.24)
shls	1.835 ***	(3.90)
lst1	-1.678 ***	(-3.23)
lst2	-1.671 ***	(-2.65)
lst3	-1.265 ***	(-2.90)
age	0.045 **	(1.87)
mesoshar	-0.009	(-0.68)
_cut1	0.194	(0.14)
_cut2	-1.852 ***	(-6.31)
Number of observations		75
LR chi2(8)		51.46
Prob > chi2		0.0000
Pseudo R2		0.3222

Source: author (output from Stata). *, **, *** represent significance at 10%, 5%, and 1% levels, respectively.

The dummy variables, *lfs*, *gfs*, and *shls*, respectively denote the main funding sources of loans, grants, and shareholder capital funds or equity; *sfs* (savings) is the reference variable. The dummy variables, *lst1*, *lst2*, and *lst3*, respectively indicate the current MFI legal status of NBFI, bank, and NGO; *lst4* (cooperative) is the reference variable. The variable *mesoshar* signifies the share of mesocredit in the MFI outstanding portfolio, while the variable *age* refers to the MFI age. _cut1 and _cut2 are the two cutpoints. The t statistics are given in parentheses. These results were obtained from ordered probit regression.

In the]150%, max] interval of GNI per capita, the effect of loans, grants, and equity as main funding sources was 0.54, 0.35, and 0.59, respectively, for MFIs granting credit. If funding mainly comes from these sources as opposed to savings, there is a higher probability by 54%, 35%, and 59%, respectively, that the MFI offers credit. With regard to the effect of NBFI, bank, and NGO statuses on this credit interval, it was -0.44, -0.44, and -0.36, respectively, an MFI with these statuses has a lower probability by 44%, 44%, and 36%, respectively, compared to a cooperative of granting credit in this interval. Moreover, there is a 2% greater chance that a more established MFI provides a credit exceeding 150% of GNI per capita. Although the effect of mesocredit

share (*mesoshar*) is insignificant, it still allows us to observe that the likelihood of granting a mesocredit decreases in line with the mesocredit share held in the MFI outstanding portfolio.

5.2 Predicted probabilities

Predicted probabilities for the first category tended to be less than 0.19 on average. However, the majority of predictions concerned the second and third categories, which extended to 0.40 on average. Descriptive statistics of the predicted probabilities are provided in Table 6 (see appendix).

If we consider an African MFI that uses equity as its main funding source, has a cooperative status, has been established for 30 years old, and has a 75% mesocredit share in its outstanding portfolio, the predicted probabilities are as follows:

$Pr (y = 1 \mid x)$: 0.0080, $Pr (y = 2 \mid x)$: 0.2814, and $Pr (y = 3 \mid x)$: 0.7105

with x (*lfs*=0 *gfs*=0 *shls*=1 *lst1*=0 *lst2*=0 *lst3*=0 *age*=30 *mesoshar*=75).

The likelihood of granting a sizable mesocredit is thus higher than average for such an MFI. Indeed, the likelihood that the credit falls into categories 1 =]30%, 60%], 2 =]60%, 150%], and 3 =]150%, max] is $Pr (y = 1 \mid x) = 0.008 < 0.188$, $Pr (y = 2 \mid x) = 0.281 < 0.402$, and $Pr (y = 3 \mid x) = 0.711 > 0.410$, respectively.

5.3 Test for other control variables

As the fixed effects control in an ordered probit model is difficult to assess, this study does not perfectly implement the fixed effects model. In addition, since the data was not a cylindrical panel and the number of observations was relatively low, the random-effects ordered probit was not satisfactorily taken into account. However, in an attempt to overcome these shortcomings, the influences of the investigation area were tested in the analysis. The likelihood-ratio (LR) test confirmed the significant effect of the investigation area. The influence of countries was also tested using dummy country variables created for this purpose. It would therefore appear that the operating country of an MFI has a significant effect, being 1% in favor of Kenya and Uganda, 5% in Benin and Madagascar, and 10% in Burkina Faso.

6. CONCLUSION

This paper attempted to present an overview of mesofinance activities with the aim of analyzing its inherent mechanisms. Two hypotheses were identified based on the existing literature. Hypothesis H1 stipulated that loans to small businesses are better developed when shareholders with equity constitute the main funding source for financial services providers. Hypothesis H2 assumed that institutions such as cooperatives, NBFIs, and banks that offer savings facilities as well as other financial services are more likely to offer mesocredit. To test these hypotheses, data relating to the characteristics of MFIs offering loans to small businesses in Africa were collected from the MIX Market database.

The results show that the main funding source of MFIs, their current legal status, and age significantly affect their probability of offering loans beyond microcredit. Since equity has the greatest positive effect in our model, H1 may be validated. This may be explained by the fact that, unlike grants and loans, equity is the optimal way for financing a new market segment as in the case of high-risk loans for SMEs (Bekolo and Beyina, 2006; Mckee, 2012). Nevertheless, we must keep in mind that equity carries substantially higher transaction costs, requiring careful structuring at the outset as well as ongoing management.

Furthermore, it would appear that if the MFI is an NBFI, bank, or NGO, the propensity to offer a mesocredit decreases, contrary to cooperative MFIs. Therefore, H2 cannot be wholly validated, as a positive effect should have appeared in relation to an MFI's cooperative status, indicating its higher propensity to offer mesocredit. This may be explained by the fact that the primary funding mechanism for cooperatives, notably member savings and shares, constitute a stable and relatively low-cost source of funding for loans (Ledgerwood *et al.*, 2013). However, cooperatives and banks have the advantage of being able to offer a wider variety of products and a broader range of terms and conditions.

The outcomes of this study may contribute to the economics and finance literature on the microfinance transformation process by documenting the role that MFIs play in the SME financing gap. One limitation was that only MFIs that communicated and specified the size of their loans to small businesses were studied. As a result, this may have excluded many potentially active MFIs in mesofinance. Otherwise, the results would have been more robust if the number of observations was higher. Nonetheless, the study approach of differentiating between the MFIs that provide loans to small businesses and those that offer loans for social inclusion assisted in obtaining practical results.

Therefore, to consolidate the conclusions drawn from this paper, it would be interesting to conduct a parallel study from the perspective of credit demand. The characteristics of small businesses should also be studied to identify how these firms could gain better access to mesofinance services.

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Appendix

Table 4: *Distribution for the dependent variable*

Mesofmi (Loan can be a sizeable mesocredit)	Frequency	Percentage	Cumulative
1	14	18.67	18.67
2	30	40.00	58.67
3	31	41.33	100.00
Total	75	100	–

Source: author (outcome from Stata).

Table 5: *Marginal effect*

	y = Pr (mesofmi = 1) = .076			y = Pr (mesofmi = 3) = .337		
Variables	dy/dx	z	P>|z|	dy/dx	z	P>|z|
lfs	-.393	-3.21	0.001	.536	5.26	0.000
gfs	-.128	-2.51	0.012	.345	3.41	0.001
shls	-.306	-3.13	0.002	.593	4.85	0.000
lst1	.411	2.66	0.008	-.441	-4.70	0.000
lst2	.409	2.36	0.018	-.440	-4.01	0.000
lst3	.291	2.26	0.024	-.358	-3.85	0.000
age	-.006	-1.59	0.112	.016	1.81	0.070
mesoshar	.001	1.29	0.196	-.003	-1.21	0.227

Source: author (outcome from Stata).

Table 6: *Statistics of the predicted probabilities*

Variable	Obs	Mean	Std. Dev.	Min	Max
p1oprobit	75	.1876262	.2404516	.0001964	.7398355
p2oprobit	75	.4016637	.1731491	.0447287	.6446204
p3oprobit	75	.41071	.3153686	.0063598	.955075

Source: author (outcome from Stata).

Résumé

Ce papier tente de définir un schéma explicite des expériences menées en mésofinance en Afrique. Vingt-six institutions de microfinance (IMF) sont observées entre 2008 et 2012, dans 16 pays d'Afrique subsaharienne. Les caractéristiques de ces IMF sont analysées, depuis les programmes de mésofinance mis en place jusqu'aux bénéficiaires ultimes. En isolant les prêts offerts aux petites entreprises des prêts d'inclusion sociale, une étude empirique est effectuée à l'aide d'un modèle probit ordonné. Après une régression de données de panel, l'analyse révèle que les IMF opèrent en mésofinance suivant leur source de financement et leur statut légal.

Mots clés : Mésofinance, IMF, prêts aux petites entreprises, Afrique, probit ordonné.