LOAN OFFICERS AND CLIENTS' OVER-INDEBTEDNESS PREVENTION THE CASE OF BANCO ADOPEM

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Abstract

Loan officers act as the interface between microfinance institutions and clients, and as previous research has shown, they are particularly relevant in the screening and recovery phases. Given that these two stages of the credit process are considered critical in over-indebtedness prevention strategies, it is expected that credit officers have a key role at this level. However, the case study developed at Banco ADOPEM based on field observations and statistical analysis of data collected from the institution's management information system showed that for ADOPEM there were institutional factors outweighing the individual influence of loan officers. Among them, the human resources' policies and the standardization of procedures were vital and helped build a strong corporate culture.

Keywords: *Microcredit, Loan Officers, Over-indebtedness, Latin America.*

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1. INTRODUCTION

As one of the pillars of the financial system, credit is of great importance in economies as it allows investment and enhances growth justifying the attention given to microfinance projects in developing countries (Beck *et al.*, 2007). The microfinance movement emerged in the 1970's and worked as a lever for promoting access to formal financial services, particularly credit, in these countries.

According to poverty and financial inclusion figures around the world, the microfinance sector grew in a demand gap assumption with many microfinance institutions (MFIs) trying to achieve simultaneously outreach goals and financial sustainability. This proposition led to impressive growth rates of the sector in some countries with the establishment of new MFIs, the transformation of several of the largest MFIs into regulated financial institutions and the downscaling of commercial banks in order to serve the lower income segments of the population (Ledgerwood and Gibson, 2013).

Competition became a factor to consider in some of these regions, and along with other factors such as the social and cultural changes associated with urbanization and consumerism, contributed to the emergence of a new phenomenon – clients' overindebtedness – that challenges the demand gap paradigm which has traditionally grounded the sector.

Over-indebtedness is a complex problem entailing very negative consequences for clients, institutions and communities as the delinquency crises in important microfinance markets have shown (Vogelgesang, 2003; Schicks and Rosenberg, 2011; Guérin *et al.*, 2013). Not surprisingly it became a major concern for all microfinance actors being identified as the top risk for the industry in the latest Banana Skins Reports (Lascelles and Mendelson, 2012: Lascelles *et al.*, 2014). The need to understand the causes of the problem and figure out how to deal with and prevent it led to the emergence of several initiatives, namely the Smart Campaign, but generally adopted a more institutional perspective.

The objective of the master's thesis developed in the European Microfinance Programme (EMP) was to focus the attention on the potential role of loan officers in over-indebtedness prevention strategies, considering that they are key actors in the credit process[1]. Previous research on loan officers has proved that they can influence MFIs' performance (Agier, 2012; Agier and Szafarz, 2013; Sagamba *et al.*, 2013), but these papers addressed different topics; so as far as we know, this is the first attempt to establish a relationship between loan officers' work and over-indebtedness prevention.

The research was based on the case of Banco ADOPEM, one of the leading MFIs in the Dominican Republic where the author did the EMP internship between May and August 2013[2]. The work was developed using both

[1] In the paper the terms loan officer and credit officer have the same meaning and are used interchangeably. The European Microfinance Programme is an advanced master's in microfinance offered by the Université Libre de Bruxelles, University of Mons and Paris - Dauphine University.

[2] The results of this work were also integrated in the Microfinance in Crisis, a research project funded by the European Investment Bank aiming to analyze the delinquency factors in the

qualitative and quantitative methodologies and aimed to explore if loan officers' personal characteristics had an impact on the MFI's effort to prevent clients' over-indebtedness, or if there were other factors more important in the process as had proved to be the case with the MFIs' organizational structure prevailing over the loan officers' individuality.

The paper starts with the theoretical background for the thesis focusing on the definition of over-indebtedness and its relationship to loan delinquency; the identification of the critical stages in over-indebtedness prevention, especially those associated with the credit process and the role of credit officers in these stages, building the case for loan officers' relevance in over-indebtedness prevention. Considering that loan officers develop their intervention within an institutional context, section 3 presents briefly the MFI, highlighting its main features concerning credit and human resources' policies since those were revealed to be fundamental in the MFI's results. In section 4, the research methodologies used are described and justified by underlining their limitations and discussing the main findings. Finally, in the last section conclusions are presented.

2. MICROFINANCE, OVER-INDEBTEDNESS AND LOAN OFFICERS

Microfinance corresponds to the provision of financial products and services to low-income populations otherwise excluded from the formal financial markets (CFI, 2013). Access to a wider range of financial products is considered essential for answering financial needs of poorer populations as they need to manage cash-flows, accumulate assets and deal with risk (Karlan and Morduch, 2010). Even so, credit was the initial focus of the microfinance movement, and the credit portfolio is still the main asset and source of revenues for many MFIs.

Serving low income populations was not the aim of traditional banks. Poorer populations normally do not have a credit history that can work as a positive reference of their ability and willingness to repay their loans; they usually need (and can afford) small loans generating small (if any) profits and cannot present assets as collateral (Armendáriz and Morduch, 2010).

MFIs emerged to fill this gap, but similarly to commercial banks, they have to determine the creditworthiness of their potential clients, design products that correspond to clients' needs, and draw contracts with the ade-

microfinance markets, focusing on five countries: India, Senegal, Morocco, Dominican Republic and Nicaragua.

quate incentives to repayment (Gonzalez, 2008). In order to achieve this, MFIs had to overcome the barriers associated with information asymmetries that are especially relevant for low income populations, and translate into adverse selection and moral hazard problems.

Microfinance answered these challenges differently from mainstream banking by adapting typical mechanisms like screening and collateral to microcredit particularities and introducing some innovations such as dynamic incentives, short repayment schedules and group lending with joint liability (Agier, 2012; Mersland and Ström, 2011; Vogelgesang, 2003). The development of the microfinance sector over the last four decades allowed millions of clients in developing countries to access formal financial services, but it was not exempt from problems.

2.1. Over-indebtedness and delinquency

Over-indebtedness refers to a situation in which a loan contract does not correspond to what borrower, lender or both, expect initially. This results in repayment problems, either because the client is unable to pay, or needs to implement "extraordinary and costly actions" in order to keep paying, or is unwilling to pay (Gonzalez, 2008). Schicks (2013) adopts a customer's perspective to consider that clients are over-indebted when they experience difficulties in meeting all their financial obligations, including loan repayments, and make continuous sacrifices in order to not default[3].

The two definitions have common aspects and a major difference. Both authors stress the fact that even when the clients are unable to comply with all their financial responsibilities, it does not mean that they are defaulting on all of their obligations, so it is possible that microfinance loans are being repaid on time but requiring for the client "extraordinary and costly actions" as Gonzalez mentioned or continuous sacrifices mentioned in Schicks' version. From the MFIs' point of view, this encompasses a danger that situations with increased credit risk are camouflaged and detected too late, limiting the institution's ability to solve or minimize the problem.

Another important characteristic of an over-indebtedness situation common to both definitions and particularly stressed by Kappel *et al*. (2011) is its persistency in time. The clients are not facing temporary and easy-to-overcome difficulties. Further qualitative work developed with clients in the Dominican Republic has shown that the majority of those in fragile financial

[3] These sacrifices include use of savings, postponement of other important expenses, a search for new sources of income by taking new jobs or migrating, reduction in food or other consumption, and assets selling (Schicks, 2013).

situations had no perspective of exiting from debt in the short run (Morvant-Roux *et al.*, 2014).

The definitions differ on the clients' contribution to their over-indebtedness situation. Gonzalez (2008) adopts a broader definition considering that the repayment difficulties result both from situations in which the client is unable to repay because he/she does not have enough cash (inability to repay) and those in which there is unwillingness to repay, independently of the capacity to do so (strategic default). Schicks, similarly to Kappel *et al.* (2011) only considers the client to be over-indebted if there is no intention of defaulting and the non-repayment is an undesired consequence of economic difficulties.

Adopting Gonzalez's (2008) perspective, over-indebtedness and loan delinquency are strongly related, but even if strategic default situations are not taken into account, the persistent non-repayment of loans constitutes a sign that the client is potentially over-indebted. For this reason, monitoring portfolio quality, including the widely used indicator portfolio at risk at 30 days (PAR_{30}) is important in the context of over-indebtedness prevention and considered a best practice at the international level (Schicks, 2013; Gonzalez, 2008).

When talking about the definition of over-indebtedness, it is important to notice that even if from a financial point of view, the person can be classified as over-indebted, this does not mean that she will see herself this way. The social value of debt and the way debt relationships are perceived in diverse contexts differ and have an impact on how the poor see their own situation (Guérin *et al.*, 2011).

Table 1 summarizes the multiple over-indebtedness causes identified in previous research. The diversity and range of factors demonstrates the complexity associated with over-indebtedness situations that result from the interaction of demand, supply and environmental factors.

Considering that the focus of the paper is the loan officers, particular attention has to be put on institutional factors while not forgetting that there are psychological and sociological reasons encouraging poor people to increase their debt beyond their financial capabilities as well as opportunistic behaviors of some clients like pursuing risky investments and strategic default (Schicks, 2010; Morvant-Roux *et al.*, 2012).

From a macro perspective the combination of different trends, namely increasing instability in the labor market associated with the maintenance of low incomes; growing urbanization with a decrease in self-production; and increasing consumer and social mobility aspirations, has reinforced the need for cash and enhanced borrowers to adopt risky behaviors (Servet and Saiag, 2013).

Table 1: ***Causes of Over-indebtedness***

<table>
<tr><td rowspan="2">Borrowers' Factors</td><td>Cognitive and psychological biases:
• Errors in judgment due to overconfidence (underestimation of the probability of adverse shocks)
• Lack of knowledge (financial illiteracy) and experience with formal financial institutions
• Time bias - short term perspective (managing daily needs)
• Lack of self-discipline</td><td>Sociological factors:
• Social mobility aspirations and consumerism
• Inequality and social comparison with their peers
• Economic socialization - norms and practices in society related to debt</td></tr>
<tr><td>Socio-demographic and Economic Characteristics:
• Age, Gender, Household Composition, Education Level, Professional Status, Income, etc.</td><td>Opportunistic Behavior of Clients
(risky investments, strategic default)</td></tr>
<tr><td rowspan="2">Institutions' Factors</td><td>Concentration on Portfolio Growth
(Incentive schemes; aggressive marketing techniques)</td><td rowspan="2">Lending Procedures:
• Lack of transparency on clients' communication
• Deficient screening (Inadequate models and procedures to evaluate clients' solvency)
• Aggressive recovery policies and procedures</td></tr>
<tr><td>Inadequate Product Mix
(Characteristics of the products, namely maturity, repayment frequency and time of disbursement, not adjusted to clients' needs)</td></tr>
<tr><td rowspan="3">External Factors</td><td rowspan="3">Institutional and Legal Environment:
• Efficiency Level of Judicial System
• Market's Sharing Information Structures (Credit Bureau, …)
• Competition (increase of asymmetries of information; market saturation; multiple borrowing)
• Weight of Informal Finance and Consumption Credit</td><td>Macroeconomic Environment</td></tr>
<tr><td>Adverse Shocks to Income:
• Job loss, illness, failed investment, …
Adverse Shocks to Expenses:
• Wedding, funeral, housing, health, education, …</td></tr>
<tr><td>Natural Disasters</td></tr>
</table>

Source: Own construction (adapted from Schicks, 2010; Gonzalez, 2008; Morvant-Roux *et al.*, 2012)

Over-indebtedness can be very harmful for both clients and MFIs. For borrowers it often results in stress, loss of self-confidence, impoverishment and increased vulnerability. MFIs are affected financially and risk damage to their reputations (Guérin *et al.*, 2013; Lascelles and Mendelson, 2012; Schicks and Rosenberg, 2011). There is a consensus in the sector about the dangers of over-indebtedness, and several initiatives have been developed that include principles and actions related to prevention, among them the Smart Campaign[4].

The campaign aims to raise awareness among practitioners through a series of initiatives of sensitization, training and dissemination of best practices and technical tools. In order to avoid clients' over-indebtedness, MFIs are expected to properly evaluate client capacity to repay the loan and provide adequate incentives to staff focusing on portfolio quality (Rozas, 2011).

It is difficult to present an extensive list of measures to be taken by MFIs in order to prevent over-indebtedness; nevertheless, it is possible to identify critical areas in the credit process that should be taken into account by institutions in the definition of their strategies, policies and procedures (Schicks and Rosenberg, 2011). Among these critical stages are:

- Product design

Microcredit programmes have often associated dynamic incentives, namely the threat of interrupting access to credit and progressive lending. The fact that approval of future loans and the possibility of getting higher amounts are dependent on repayment performance on previous loans restrains borrowers from defaulting, minimizing moral hazard behaviors, especially in markets where there is limited access to other financing sources. Additionally, loans are frequently characterized by shorter and regular repayment schedules aiming to create a disciplined payment culture and guarantee a continuous source of information regarding the borrower's capacity and willingness to repay the loan (Armendáriz and Morduch, 2010; Vogelgesang, 2003; Morduch, 1999).

With regard to collateral, even if clients do not have sufficient assets to pledge, alternative forms to secure the loans are used: joint liability in groups, close monitoring of clients, compulsory savings and personal guarantees. In some cases, MFIs take the few assets the client may have as collat-

4 Smart Campaign is an initiative of the Center for Financial Inclusion (CFI) and CGAP that establishes as one of the Clients Protection Principles the prevention of over-indebtedness. Over-indebtedness is defined as the incapability to comply with debt obligations without jeopardizing basic quality of life. (Smart Campaign, 2011).

eral creating pressure on the client to repay the loan as he/she does not want to lose the asset (Ledgerwood and Earne, 2013; Morduch, 1999).

These mechanisms are particularly important to avoid strategic default situations, but it is essential when designing their products that MFIs prioritize clients' real needs offering flexible credit products with adequate conditions (amount, term, number and amount of installments, and collateral).

- Marketing and Communication

Communication content and marketing practices influence clients' decisions to assume debt. The information must be understandable for the clients and transparency in what refers to requirements, conditions of the loans and consequences of debt and default are essential to sensitize clients for the responsibilities associated with debt and help them make conscious decisions on these matters. Marketing strategies should privilege promotion in underserved areas, avoiding saturated areas in which the intense competition between financial providers may lead to relaxation of screening procedures, weakening the relationships with clients and facilitating cross-debt practices and default (Assefa *et al.*, 2013).

- Screening

Screening involves gathering as much information as possible about the borrower. For low income populations, MFIs have to be creative with the information collection process: using group lending to access information on one potential client through the other members of the group; evaluating loans in the house of the clients; contacting family, neighbours and former employers in order to access further information on the client (Armendáriz and Morduch, 2010).

The process should start with the verification of the client's level of indebtedness (formal and informal) through the available mechanisms, namely the institution's database (repayment history), credit bureaus, personal references, and suppliers. If the client meets the requirements, the evaluation of non-financial and financial information should allow determining the willingness and the capacity to repay, with the latter as a key indicator constructed from household and businesses' cash flows. Though not being the decisive element, information on the potential guarantees of the loan should also be collected and analyzed as a mechanism to reduce risk.

- Collection (Recovery)

Clients should be treated respectfully in all situations. Abusive collection procedures are to be avoided and clients should have access to effective complaint mechanisms. In case of default, there should be flexibility to find alternative solutions.

In addition to the practices associated with the credit process, the definition of a strategy to prevent over-indebtedness normally includes other types of actions related to training (staff and financial literacy for clients); staff incentive schemes; sharing information (participation at credit bureaus); early warning systems of over-indebtedness; and written policies and auditing procedures addressing over-indebtedness issues (Smart Campaign, 2013; Smart Campaign, 2011; Schicks and Rosenberg, 2011)[5].

2.2. Loan Officers and Over-indebtedness

The theoretical considerations presented so far take us to a central question of this paper: why are loan officers relevant in the prevention of over-indebtedness and delinquency?

Loan officers are central players in microfinance as they are the link between institutions and clients. They collect information on the borrowers' financial situation, present the proposals to the credit committee in the selection stage, check the situation of the borrower after disbursement, and take actions to guarantee the enforcement of the contract by collecting the installments and intervening in case of default (Agier, 2012; Dixon *et al*., 2007). They can be seen as brokers since they have the challenging role of intermediating two parties that have different interests and diverse positions in terms of access to information, knowledge and power (Lewis and Mosse, 2006).

Credit officers have an active participation in the main phases of the credit process: promotion, screening/analysis, decision, disbursement and monitoring/recovery, with several studies drawing attention to the influence of loan officers especially in the screening and recovery stages (Agier and Szafarz, 2013; Agier, 2012; Canales, 2011; Sagamba *et al.,* 2012).

Table 1 (above) shows the main causes associated with over-indebtedness, namely those related to institutional factors. It is important to highlight that although the institutions' mission and growth objectives, the product mix and the lending methodologies are severely constrained by top management deci-

[5] In markets where microfinance is more developed and competition higher, mechanisms for sharing information between lenders are important for reducing information asymmetries and opportunistic behavior from the clients. However the use of credit reporting scores has to be done with care by MFIs if they want to continue serving the poorest clients since these potential borrowers will have very low scores at the bureau as they do not have a previous credit history (Pearson, 2008).

sions, in practice, many of them are applied by credit officers that are the embodiment of the institution from the clients' viewpoint. Even in a context in which managers try to reduce complexity and facilitate monitoring through the standardization of procedures and the use of technologies, credit officers still have some control over client relations and discretionary power when interpreting the rules and the best way to enact them (Canales, 2011a).

Thus, there are compelling arguments to validate looking in more detail at the role of loan officers in over-indebtedness and delinquency prevention and to justify the relevance of monitoring loan officers' behavior and performance. But credit officers are hard to monitor as the microcredit approach to clients usually relies on a decentralized processes in which they perform a wide set of operations in the clients' physical neighbourhood. This means that in many cases, they are the sole point of contact between client and MFI; much of their work is done in the field, with up to 75% of their working time spent out of the MFI's office. For this reason, agency costs can be identified in the relationship between the institution (managers) and its credit officers, and many institutions rely on contracts comprising incentives to mitigate these problems (Canales, 2011a; Agier and Szafarz, 2011; McKim and Hughart, 2005).

The design of incentives' schemes capable of aligning institution and staff objectives is particularly complex in microfinance as MFIs often assume a dual mission, combining social objectives with the institution's financial sustainability. The definition of targets to be rewarded influences the MFIs' performance as they will lead staff actions toward portfolio quality or growth objectives since the desired balance between both is not easy to accomplish (Armendáriz and Morduch, 2010). This explains why the design of adequate incentive staff schemes is also an important part of an integrated over-indebtedness prevention strategy.

3. CASE STUDY: BANCO ADOPEM

Banco de Ahorro y Crédito ADOPEM is a Dominican MFI with headquarters in Santo Domingo. The institution is a savings and credit bank, created in 1982 as a NGO that became a regulated financial institution in 2004. In the year 2012 an important change occurred in the shareholders' structure of the bank with the entrance of Fundación BBVA that became the main shareholder.

As of June 30, 2013, the MFI had 51 branches across the country and employed 935 persons; almost half of them were loan officers. It was a financially solid institution that has learned from its own experience and has incorporated some of the best practices in the sector, awarded as Best Microfinance

Institution in Latin America in 2012. At the same time, the MFI worked in an increasingly competitive market, had a significant number of credit officers and was available to collaborate in the research. Thus, its experience, even if there was no over-indebtedness problem and portfolio quality seemed to be under control, could be a good starting point to identify a loan officer profile more effective in preventing clients' over-indebtedness.

Table 2 includes some of the main activity indicators of the MFI that in 2013 kept growing while controlling portfolio at risk.

Table 2: ***Main Activity Indicators***

		31/12/2012	31/12/2013	Var. 12-13
Total Assets	RD$	4,078,245,972	4,454,087,931	9,2%
Gross Loan Portfolio (GLP)	RD$	2,926,338,194	3,527,224,430	20,5%
Total Deposits	RD$	1,472,588,410	1,937,036,211	31,5%
ROE	%	25,4%	31,9%	+
Borrowers	N.º	159,718	178,354	11,7%
Depositors Accounts	N.º	218,182	288,137	32,1%
PAR_{30}	%	4,09%	3,43%	+

Source: Own construction from ADOPEM (2012) and ADOPEM (2013)

Beyond different credit products (described below), Banco ADOPEM's offer includes savings accounts, remittances, investment (financial certificates) and payment services (tPago). It also offers training services to clients, employees and families through the partnership with ADOPEM NGO.

The bank participates in several national and international projects and consultancies. The Plexus programme resulted from one of these consultancies, and it is highlighted here because it introduced several changes in the bank's organization, particularly in the daily work of branches and credit officers, aiming at standardizing procedures and increasing efficiency. Though implementation was still recent, ADOPEM managers attributed the evolution of portfolio quality indicators in 2013 to the programme. After four years of gradual increase, PAR_{30} decreased which was seen as positive in terms of over-indebtedness prevention.

3.1. Credit Programmes and Policies

ADOPEM offers different types of credit that have distinct lending methodologies (group and individual loans), diverse uses and repayment forms as well as guarantees requested.

Table 3: ***Credit Programmes***

1. Commercial Credit	Micro and Small Enterprise	• Solidarity Group • Micro – Micro (group) • Micro Enterprise (individual) • Small Enterprise (individual)
	Small and Medium Enterprise (Pyme)	
2. Agriculture Credit (Rural)		
3. Housing Credit (maintenance, renovation and extension of clients' houses)		
4. Consumption Credit (residual category, clients are employees of some enterprises)		

Source: Own construction

The general principles and policies to be used in the concession of credit are established in the credit manual that among other aspects defines the types and modalities of credit and the policies concerning interest rates, guarantees, credit committees, provisions and risk levels. ADOPEM's credit process is described in Figure 1 which identifies the stages and the main actors in each phase.

Figure 1: ***ADOPEM Credit Process***

Source: Own construction

In this process two stages are especially important for this research: analysis and recovery. The first is a critical phase in the credit process as it will determine the probability of approval and the conditions of the potential loan. It includes at least one visit to client and guarantor and desk analysis. The process of collecting and validating information will be more or less detailed depending on the amount of the loan and complexity of the business, but in all cases, there are three fundamental concepts:

- Indebtedness level: the evaluation of the indebtedness level is done by analyzing the client's profile in the credit bureau[6]. Though there is no specification on this matter in the credit manual, there is a reference in the credit proposal checklist to more than 3 active operations to be considered as representing a higher risk of over-indebtedness[7]. Moreover, the evaluation of the indebtedness capacity implies verifying other debts with informal financial providers or business suppliers. For this the loan officer relies on informal sources.
- Willingness to repay (qualitative analysis): assessing repayment willingness means to evaluate a person's compromise to comply with a repayment obligation. Even if psychological and sociological factors are at stake, the institution's experience and best practices in the microfinance sector give some clues to recognizing these characteristics, namely if the potential client maintains a record of repayment on time with financial providers, public services and suppliers; is not applying at the same time to different banks; consults other members of the household before deciding to take the loan; puts a limit to the installment in order to be comfortable paying; and has a good reputation in the neighbourhood where he/she lives.
- Repayment capacity (quantitative analysis): the main objective is to determine whether a client has the capacity to regularly repay the loan installment or not. Considering that most of the businesses are informal, the analysis jointly considers business and household flows. The principle for loan approval is that the repayment capacity (Installment/Net Income) is at least two times the installment amount after complying with all the other financial obligations.

In the information collection process, the loan officer should make use of cross validation techniques like the direct observation at the client's house and business; the collection of documentation confirming the declared incomes (for example, rental contracts or receipts if the client has property rented; sales registers, if existing); and the contact with guarantor, family,

6 ADOPEM uses the services of DataCred, one of the private bureaus in Dominican Republic, obtaining information on present and past credit operations, credit cards and services such as telecommunications, electricity and water.

7 All the loans and credit cards presenting an outstanding balance are considered in the active operations.

neighbours and business partners. This is a much underlined principle in the training sessions.

It is important to stress that recovery is one of the most important and absorbing tasks of credit officers' work. The process is based on the idea that repaying on time is fundamental for the clients to build a positive credit history with the institution and the credit bureau allowing the client to access loans in the future, and with better conditions. The role of the credit bureau in clients' repayment is particularly important in the Dominican Republic where the two existing credit bureaus are widely used by creditors (Morvant-Roux *et al*., 2014).

The recovery process is characterized by a very close monitoring of all arrears situations since the first day with explicit instructions to loan officers to keep a friendly attitude toward the client even in case of default. This is a task assumed by all staff at the branch, especially by the branch manager and the client service officers, even if the responsibility of each individual process stays with the respective credit officer.

3.2. Loan Officers at ADOPEM

The relevance of credit officers in ADOPEM's human resources reflects on the employees' figures: at the end of June 2013 from the 935 employees, 444 were loan officers (47,5%)[8].

Banco ADOPEM gives particular attention to recruitment and training, seeing them as differentiation factors for the institution and central elements to build a strong institutional culture. The bank adopts a policy of hiring mainly young people without working experience at financial institutions, privileging attitudes and financial needs more than technical competencies and skills. Training has been developed to give employees all the competencies needed for doing their jobs complying with the policies and procedures defined by the management.

After an initial and experimental period in the branch, all employees are given two introductory courses (Inducción I and II). Between the third and sixth months, the employees may have different courses according to the area they are working in; the loan officer has the most developed curriculum (Credit Techniques I, Credit Techniques II, Housing, Sales Techniques and Client Service). The programme is more intensive in these first six months, but there is a policy of continuous training for all employees.

[8] Branch managers represented 6,1% while other branch staff (client service officers, tellers and operation officers) accounted for 26% of the personnel (source: ADOPEM database).

Particular attention is also given to a career and incentive package for credit officers, branch managers and supervisors. In the Credit Officers Career Plan there are 5 types of credit officers (Table 4)[9].

Table 4: ***Credit Officers Types***

Type	Credit Products
Grupo (Group - GO)	Solidarity Group, Micro-Micro
Micro Empresa (Micro Enterprise - ME)	Micro Enterprise, Small Enterprise, Housing
Rural (RO)	Agriculture Loans, Small Enterprise, Pyme, Housing
Pequeña Empresa (Small Enterprise - SE)	Small Enterprise, Pyme, Housing
Pyme (Small and Medium Enterprise - PYME)	Pyme

Source: Own construction

For each credit type are 5 income categories related to experience and performance: Aprendiz à Junior à Senior à Master à Triple A. Given that the bank has been growing fast, opening new branches and creating new departments at headquarters, the opportunities for growing professionally inside the institution exist and are a source of motivation for employees.

The remuneration package includes the salary; an extra wage in December; a bonus according to institution's performance in December; a bonus on the bank's anniversary in July; and paid vacations (between 3 and 7 days depending on time of service). Furthermore, the institution offers a life insurance policy to all employees and helps with their university costs.

The base salary for a new credit officer (*aprendiz* at group loans) corresponds to around 30% more than the minimum wage established by the Dominican Republic Labor Ministry for 2013. But after the first six months, it can increase rapidly through the incentive schemes and promotions. For higher positioned loan officers, the total monthly income may go up to 190% the minimum wage.

The incentive scheme is based on portfolio performance including monthly and trimester incentives. In both the main criteria are: portfolio quality assessed by the three indicators used by the institution – Arrears, Ar-

[9] There is an extra category of credit officer, the "flotante" who does not have a portfolio assigned, being in a specific branch to learn with the other credit officers. ADOPEM had 41 "flotantes" at the end of June 2013.

rears SIB (Superintendence of Banks) and PAR_{30}; and portfolio growth measured by the number of loans and credit amount. The goals are set for each branch and credit officer depending on the historical behavior of the bank as a whole, the branch and the individual portfolio. There are minimum goals for growth and maximum goals for arrears that cannot be worse than the previous year to keep pushing for the growth of the institution, and controlling portfolio quality[10].

With regard to incentives, there are also initiatives which have a public recognition effect. In January the employees and branch of the year are recognized in a social event that joins together all the staff of the bank. Similarly in July, awards are given to the employees with best results of the first semester.

Regarding ADOPEM main policies for credit officers, it is also important to mention the introduction in 2013 of a *typical* day, within the application of Plexus programme. This is a day plan defining tasks and respective time allocation (Table 5) with established daily and monthly minimums for each of the field tasks.

Table 5: ***Credit Officer Typical Day***

Schedule	**Tasks**	**Location**
8h – 10h	Preparation of loan documentation; credit committee and performance indicators analysis; phone calls to renewal and ex-clients	Branch
10h – 10,15h	Phone calls to clients with installments due at this day	Branch
10,15h – 13,15h	Field work: recovery, evaluation, promotion and prospection	Field Work
13,15h – 14,15h	Lunch	–
14,15h – 16,45h	Field work: recovery, evaluation, promotion and prospection	Field Work
16,45h –	Phone calls to clients with installments due at this day and to potential clients identified in prospection. Preparation of daily route for next day	Branch

Source: Adaptation from ADOPEM internal document

[10] For example, the monthly goal for the number of loans in 2013 was not lower than 55 for a group credit officer, 30 for a micro enterprise credit officer and 15 for a small enterprise credit officer.

4. CASE STUDY: METHODOLOGIES AND FINDINGS

Screening and recovery were identified as critical stages of the credit process and of great importance in monitoring loan delinquency and defining an over-indebtedness prevention strategy. For these areas Banco ADOPEM has well-defined strategies and applies the best practices in the sector, including exploiting multiple sources of information, among them the credit bureau and informal information; applying comprehensive assessment tools, making use of the institution's own experience, its sound knowledge of the target population and selective consultancies; having a good information system that provides on-time information about the clients' debt history; and supporting the credit officers' efforts, especially in recovery, by integrating in the process the branch managers and other branch staff.

Bearing this in mind, the field and statistical work were developed to answer the question if ADOPEM loan officers' personal characteristics had an influence on the results of the screening and recovery processes, measured by their clients' repayment performance, and in this way test if loan officers' individuality was significant to the MFIs' effort to prevent over-indebtedness.

4.1. Methodologies

The research was conducted using a mix of qualitative and quantitative methodologies in order to try to gather as much evidence as possible to answer the research question taking into account the constraints associated with the study, starting from the very tight schedule of the master's programme.

The qualitative work was conducted during the internship at the MFI and had as main objectives to attain a better knowledge of the microfinance sector and the institution, particularly in reference to its policies related to over-indebtedness prevention, and simultaneously become more experienced with ADOPEM credit officers' work. It was based mainly on direct observation and desk reviewing of institutional documents. Selected semi-structured interviews with branch managers and management were used to complement the information collected in the field.

The quantitative work aimed to provide statistical evidence to corroborate (or not) the proposed hypothesis and the field observation findings with data on credit officers being obtained from ADOPEM's management information system. A first note on this work has to underline two constraints: the population was limited by the number of loan officers in the institution, and the time needed to obtain the data was restricted.

The over-indebtedness definition used throughout the work was closest to Gonzalez' (2008) definition, including both inability to repay and strategic default. The data on the clients was aggregated for each loan officer and did not allow distinguishing strategic default situations. Thus, a broader definition of over-indebtedness was adopted and the non-repayment of loans considered a strong sign of clients' over-indebtedness.

4.2. Field Observation

The field work started with getting to know the institution, its policies and procedures, and positioning credit officers in the organizational structure. For this purpose the informal talks with staff from different departments were particularly relevant, both at headquarters and at branches in Santo Domingo area; as was the researcher's presence at five training sessions attended by credit officers; and the desk work, revising some of the main documents related to the credit process.

The second stage was accompanying loan officers in their daily work. The credit officers were selected by the institution taking into account the request for officers from different credit programmes and branches, and as much as possible, diversified performances. The time spent in 7 different branches from Santo Domingo (Main Branch, Las Palmas, La Rotonda and Plaza Naco), Santiago de los Caballeros (Las Carreras and Los Jardines) and Bani also allowed observing the work of managers and client service officers. Finally, semi-structured interviews with branch managers from Las Palmas, Main Branch and Plaza Naco were held to clarify some of the questions raised by the loan officers' observation.

Looking at the group of 11 officers accompanied in the field, there were 4 group officers (including the 3 women in the group), 4 micro enterprise officers, 1 rural officer and 2 small enterprise officers. During the time spent with them, different issues were considered: personalities and ways of interacting with clients; motivations and job satisfaction; compliance with institutions' policies and procedures; and perception of competition.

These were analyzed focusing on the similarities and differences between the credit officers, and trying to identify personal traits with potential influence on the officer's performance, namely in the PAR_{30}[11]. Table 6 shows the main characteristics of the selected loan officers.

[11] PAR_{30} ranges between 0% and 5,2% for the officers accompanied. Is important to notice that although 5,2% was above the institution's average (3,74%), it was very far from the extreme values found for some other loan officers (up to 17,8%).

Table 6: ***Loan Officers Accompanied***

Code	PAR_{30}	Gender	Age	Education Level	Marital Status	Nr. Loans	Time in ADOPEM (months)	Salary monthly basis
SE1	2,13%	Male	27	Univ. Student	Single	361	28	$RD 31,790
SE2	4,84%	Male	33	Univ. Student	Married	289	40	$RD 33,000
RO1	2,34%	Male	34	Univ. Student	Married	327	27	$RD 21,120
ME1	1,06%	Male	24	Univ. Student	Married	303	25	$RD 18,150
ME2	5,17%	Male	21	Univ. Student	Single	477	21	$RD 18,150
ME3	0%	Male	21	Univ. Student	Single	82	4	$RD 14,850
ME4	3,12%	Male	23	Univ. Student	Single	455	9	$RD 14,850
GO1	5,2%	Male	22	Univ. Student	Single	590	19	$RD 18,700
GO2	1,85%	Female	27	Univ. Student	Single	831	19	$RD 18,700
GO3	4,39%	Female	26	Univ. Student	Single	572	11	$RD 18,700
GO4	0,95%	Female	23	Univ. Student	Single	639	24	$RD 18,700

Source: ADOPEM Database

Similarities

All loan officers accompanied were university students with no previous financial background even if many had worked before in different areas from construction to sales, tourism and administration. In spite of this coincidence regarding **education level**, the global image on the staff qualifications during the internship was of diversity which resulted mainly from the distinct levels of knowledge and skills displayed by the participants at the training sessions attended.

Two personal characteristics common to all of them, and pointed out by branch managers as essential to becoming successful loan officers, were **per-**

severance and flexibility. Complying with what is expected from a loan officer requires being outside the office 6 hours a day/5 days a week, under whatever weather conditions. They have to be persistent and cannot give up when the circumstances are adverse or they do not reach the objectives. As one of these loan officers put it "if you are not going to achieve the number of renewals planned, you need to do an extra effort on promotion and get more new clients".

Along with perseverance, they also have to be flexible, capable of adapting to clients that differ among themselves with diverse family environments, distinct problems, different personalities and beliefs. The way a credit officer relates to the clients cannot be uniform since poor people constitute a very heterogeneous population (Ledgerwood and Gibson, 2013).

Another shared feature was **job satisfaction**. In general they all claimed to be content with the job pointing out the direct contact with clients as the main factor for this satisfaction. Moreover, all credit officers mentioned that the job was a very good opportunity to learn and grow. Working for a financial institution in Dominican Republic represents being a "professional" and having an improved social status, even if this argument was not explicitly assumed by any of them.

This does not mean that they do not identify negative aspects of the job, namely enduring the adverse weather and the pressure to achieve the monthly goals. The possibility of being dismissed as a consequence of bad results was a menace mentioned on several occasions, from conversations with loan officers to the communication between loan officers and clients.

In their daily work, a common feature was the **lack of time** to talk with clients as loan officers have a tight schedule in order to comply with all the daily tasks. However, especially with those clients they collect from, the regularity of visits makes that over time the loan officer gets to know the client, often ending up with a relationship that extends past the formal connection associated with the credit contract.

The **evaluation** of the loan applications was different depending on the credit programme but similar between officers dealing with the same type of credit products. For group requests, loan officers rely primarily on their observation capacity and on the validation of information with others. Clients often have difficulties understanding the questions or giving consistent answers, so loan officers use estimations for many of the financial indicators. Evaluation visits are shorter (15 to 20 minutes).

The time and level of analysis increases with the microenterprise officers who take more time and ask more questions, especially if it is a first loan. In the visits done, first evaluations took more than 45 minutes and there was more effort to confirm the information, asking for example for invoices from suppliers and sales registers when existing. This does not mean that all the information needed was obtained directly from the client as these clients generally have more stable businesses but that are still informal and not organized. In the case of rural and small enterprise processes, besides more time visiting the client and guarantor, the analysis at the office also took more time.

The last note concerning similarities between loan officers has to do with **competition**. It was unanimous that competition had significantly increased and that loan officers were finding it harder to achieve goals. However, there were differences in the competitor's ranking made by each officer. Some of them referred to their own colleagues as "first" competition as a result of the redistribution of areas when new branches were open at the largest cities. Other recurrent references were made about the public programme, Banca Solidaria that was offering credit at subsidized rates, significantly lower than the ones charged by ADOPEM; the recently created micro and small enterprise units of commercial banks as BHD and Scotiabank; and what has been the main competitor in the microfinance sector, ADEMI.

The competition seemed to be weaker only in agriculture credit. The main competitor was the public bank, Banco Agrícola de República Dominicana (Bagrícola) which had a strong presence in rural areas but also a negative reputation (Del Rosario and Lopez, 2007). Additionally, almost all officers mentioned the relevance of private lenders in their areas which is in line with the results of the Global Findex for 2011 that concluded that for the poorest 40% of the population, private lenders assumed a more relevant role than formal financial institutions[12].

Differences

Loan officers were different in **age**, though in a relative small range; **experience** on the job given by the time working in ADOPEM; **number of loans and salary on a monthly basis**. The latter two points are related to the type of loan officer and the time working in ADOPEM.

The loan officers also had different **motivations** and perspectives for the future. Five of them seemed to be clearly aiming to go as far as possible inside the bank, affirming their expectations to keep being promoted. Among

12 Global Findex is the Global Financial Inclusion Database, developed by The World Bank. 11,4% of the poorest adults had a loan with an informal provider in the previous year against 8,3% with a formal financial institution. http://microdata.worldbank.org/index.php/catalog/1161

them there were two group officers that were promoted to micro enterprise officers in July 2013. Differently, the others saw themselves working in other institutions or having their own businesses in the future.

The **relationships with clients** reflected different personalities with some of the loan officers being more extroverted and assertive than others. This was particularly visible in the behaviors adopted during the visits, for instance going inside the house or standing outside while talking with the client, and also in the language and body postures adopted, resulting in interactions with clients with varying degrees of formality.

On the operational level, there were significant variations on the **time spent out of the office.** Although loan officers in general tried to follow the routine established for a *typical* day, none of them actually complied with everything, every day and there were differences between them. In one of the branches at Santo Domingo, credit officers went out to the field systematically much later than they were supposed to which did not happened in Bani (rural area);. Adding to this, **times associated with recovery** were also different. This was by far the most time consuming task for the credit officers accompanied: a part of the time at the branch was dedicated to calling clients who were due to pay in the day or had arrears; and a large period of the field work was spent on receiving payments or visiting default clients. The officers working in areas geographically more distant to branches had a significant increase of work load due to this task and often arrived later to the branch.

Finally, in terms of procedures, the major differences were related to the **arguments used with clients on arrears**. Although all the credit officers used clients' self-interest: more concretely, the maintenance of a good credit history as the main reason for the client not to default, other arguments were used by a number of credit officers that could be considered questionable. This different predisposition to bend the rules is in line with Canales' (2011a) findings for three Mexican MFIs. In that case, the reason given for this behavior was adapting the credit products to clients' needs. In the case of ADOPEM's loan officers, and though this could also be a valid argument in some cases, the question resided more in achieving the defined monthly goals as this had a significant impact on the loan officers' incomes.

Illustrating these situations regarding default situations, one of the arguments used was the maintenance of the loan officer's own job since they have to present results to the managers. Another was the suggestion that the client should get an informal loan, namely from a moneylender, to pay ADOPEM's installment before the end of the month (that is, before arrears had an impact on the client's profile at the credit bureau and in PAR_{30}). Even if this idea was presented in a context in which the client was expecting to receive money a few days later and would supposedly be able to pay the informal loan in a short time, this is a sensitive question, open to misinterpretations and for that reason, dangerous for the institution.

Main Findings

The qualitative work raised contradictory feelings concerning the potential impact of loan officers' personal characteristics in the repayment performance of their clients. This is not an unexpected result as the qualitative work was based on a very small sample of loan officers, and had as main objectives increasing the knowledge about the institution, and bringing up eventual disparities between credit officers concerning their personal characteristics and their performance.

Thus, the different experiences (given by age and time working in ADOPEM), personalities and ways of interacting with clients as well as the distinct arguments used in recovery may lead one to think that the hypothesis could be confirmed. But on the other hand, there are a number of similarities that discourage this assumption.

The institution has a very clear recruitment policy regarding qualifications and the types of skills the loan officers should have that reflects on the profile of a loan officer mainly with respect to the educational level and previous working experience. Moreover, the effort made by the management to standardize procedures and more closely monitor outcomes seems to be producing the desired effects as in general, the loan officers accompanied tried to comply with the main credit policies and procedures.

4.3. Quantitative Analysis

Due to the nature of the thesis and its time constraints, the objectives of the quantitative work were not too ambitious, being a first contribution in the effort to reach a conclusion on the research question.

Data

The cross-sectional data used in the study had two main sources: the business and the human resources departments, with some adjustments necessary to integrate the information in a unique data set. It included quantitative and qualitative information for the 403 loan officers with assigned portfolios at June 30, 2013, namely age; gender; educational level; marital status; monthly basis income; time working in ADOPEM; time with loan portfolio; type of officer; category; number of loans; portfolio amount; average loan amount; loans without arrears; and compliance with portfolio growth and quality goals. Additionally, information on the stability of the portfolios (loan officer changes); on the branch (rural/urban; number of clients; portfolio amount and operating time), and on the branch managers (time as managers) was also obtained.

The 403 ADOPEM credit officers were mostly:

- Men (87,3%) - there were female credit officers in all credit programmes, but they were more representative in the group programme (28%).
- Single (83,4%).
- Attending university (78,9%) – all loan officers had at least completed a secondary education.
- Between 19 and 29 years old (67%) – the youngest officer was 19 years while the oldest was 41.

With regard to the experience on the job, there were distinct situations: 38% had a portfolio assigned less than a year before while 20% were responsible for a portfolio for more than 3 years.

Given the fact that information was incomplete or inconsistent for some of the loan officers, they were excluded from the analysis. The same happened with those loan officers with 3 months or less in the institution (considered by the institution managers as an adaptation period). Therefore, the data set had 359 observations that were analyzed using Eviews software.

Variables

The complexity associated with defining and measuring over-indebtedness makes it difficult to obtain a direct measure of clients' over-indebtedness, and this was not possible in the conditions of the research. Nonetheless, the bank's information system allowed for the construction of one variable representing the risk of over-indebtedness associated with multiple borrowing – the percentage of clients in the portfolio of each loan officer with 3 or more active loans[13]. This could be an interesting variable as the relationship between multiple borrowing and over-indebtedness has been identified in several studies (Vogelsang, 2003; Diaz and Ledesma, 2011; Dannet, 2013). Simultaneously, over-indebtedness and delinquency are strongly related with PAR_{30}, one of the most used proxies for clients' over-indebtedness.

The choice of the explained variable was constrained by the fact that the multiple borrowing indicator had a very low variability in ADOPEM which combined with other limitations as the number of observations implied that the results of the econometrical analysis would probably not be significant.

[13] The variable was constructed by cross-referencing information from the credit bureau and the institution's database.

Therefore, the regression was estimated using the credit officers' PAR_{30} as a dependent variable.

As any proxy, PAR_{30} presents some limitations. First of all, it does not acknowledge people facing serious difficulties to repay the loan but who keep making extra efforts to pay on time. Even though it is not possible to know the dimension of this type of situation in ADOPEM, there are some signs that it exists. The qualitative work developed by Morvant-Roux *et al.* (2014) identified several situations among the clients from six Dominican MFIs, including ADOPEM, in which clients managed to repay on-time or with small delays and were signaled by their loan officers as good clients, but who were making sacrifices, including cutting on food and other consumption, to accomplish it.

An additional limitation of the proxy occurs if strategic default is not included in the over-indebtedness definition as the indicator does not allow distinguishing non-repayment due to inability to repay from unwillingness to repay. Finally, the available PAR_{30} data concerned a specific moment, making it impossible to test persistency in time.

Considering the independent variables, and given that the unit of analysis was the loan officer, most of the data available was directly linked to the officers' personal characteristics or performance. However, it was not possible to obtain data on procedures, like the time spent with clients on evaluation or the number of contacts with clients on arrears that could allow for identifying variances in the time allocated to different tasks as it was observed in the field. The same happened for the differences in the arguments used with clients on arrears, so these aspects could not be incorporated in the analysis. Furthermore, some of the included performance indicators such as the number of loans and type of officer were primarily influenced by management policies, and were thereby used as control variables. The institutional effects on loan repayments were also controlled by introducing variables on the branches and branch managers.

Two additional control variables related with environmental factors were constructed: a regional poverty level and a competition indicator. They were both calculated at the province level, with the first corresponding to a measure of the percentage of poor in the province using a national poverty line, and the second constructed from the information of the number of branches of six main competitors of ADOPEM - ADEMI, Scotiabank, BHD, BanReservas, FONDESA, and Associación La Nacional, weighted by the population on the province[14]. With regard to environmental factors, it would be interest-

[14] The information on the branches was collected from the financial institutions' websites, and the poverty indicator from Morillo Pérez (2012).

ing to introduce a variable reflecting climate risk since this is significant in the Dominican Republic and geographically diversified in the country. However, it was not possible to obtain information at the province level.

Before defining the set of variables to be included in the model, correlation coefficients were calculated resulting in the exclusion of some variables. The qualitative variables (gender, educational level, marital status, type of officer, category and rural/urban branch) were introduced in the model using dummy variables.

Model

Taking into consideration the existing data and the expected relationship between dependent and independent variables from a theoretical perspective, the regression model chosen was the traditional linear regression model estimated by the ordinary least squares method (OLS)[15].

The specification of the model can be presented by the following equation[16]:

$$Yi = \beta 1 + \beta 2X2i + \beta 3X3i + \ldots + BkXki + \mu i \qquad i = 1,2,\ldots,n \text{ (Equation 1)}$$

The term μ was introduced in the model in order to capture all the omitted or neglected variables that may affect the dependent variable. Among these variables are the ones related to borrowers' factors. Although the regional poverty level may reflect some of the clients' characteristics, there was no data on clients' demographics or economic situation.

Results

Table 7 presents the results of the estimation of the model as well as the relationships between independent variables and PAR_{30} that are statistically significant. All variables related to credit officers' personal characteristics (age, gender, marital status, and education level) were not statistically significant, so they did not have an impact on credit officer's PAR_{30}. The results were significant for nine variables, and overall they have confirmed the expected relationship between the dependent and the explanatory variables.

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15 The linear regression model implies that the model is linear in the parameters as it happens in Equation 1. The OLS method has a widespread utilization as under certain assumptions it allows calculation of the best unbiased estimators.

16 In Equation 1, Y is the dependent variable (co_par30), X refers to the explanatory variables included in the model, β1 is the intercept, β2 to βk are the partial slope coefficients, μ is the stochastic disturbance term, i equals the ith observation and n is the size of the population.

Table 7: ***OLS Regression Model***

Variable	Coefficient	Std. Error	t-Statistic	Prob.
β_1	0.070716	0.033436	2.114955	0.0353**
Clients_3 or more active loans (+)	0.332614	0.182531	1.822231	**0.0694***
Credit officer (CO) age	0.000439	0.000373	1.175758	0.2406
CO basis income	-1.90E-06	1.76E-06	-1.083026	0.2797
Branch manager time (-)	-0.000112	5.55E-05	-2.025974	**0.0437****
CO category_Triple A	0.012671	0.021663	0.584935	0.5590
CO category_Master	0.007337	0.016004	0.458438	0.6470
CO category_Senior	0.008167	0.011111	0.735109	0.4629
CO category_Junior	-0.002215	0.006473	-0.342234	0.7324
Portfolio CO changes	0.002219	0.002570	0.863376	0.3886
Number competitors branches	405.2077	97.28436	4.165188	4,08E+10
CO compliance amount goals (-)	-0.003358	0.000887	-3.784867	**0.0002*****
CO compliance number goals	-0.000543	0.000965	-0.562306	0.5743
CO compliance arrears goals (-)	-0.041807	0.003193	-13.09174	**3,16E-16*****
CO civil status_Married	-0.002604	0.003697	-0.704378	0.4817
CO education_Secondary school	-0.002500	0.006503	-0.384400	0.7010
CO education_University student	-0.004064	0.005452	-0.745360	0.4566
CO gender_Male	0.000192	0.004325	0.044299	0.9647
CO average loan amount	2.16E-08	7.42E-08	0.290477	0.7717
CO number loans (+)	2.22E-05	1.32E-05	1.682011	**0.0936***
Regional poverty level (+)	0.038060	0.012635	3.012267	**0.0028*****
Branch_Rural	-0.005250	0.002689	-1.952623	**0.0518***
CO type_Group officer	-0.016115	0.007363	-2.188722	**0.0294****
CO type_Micro enterprise	-0.008058	0.004644	-1.735006	**0.0838***
CO type_Small enterprise	0.001080	0.018679	0.057805	0.9539
CO ADOPEM Time	-9.12E-06	0.000120	-0.076092	0.9394
CO portfolio Time	-7.26E-05	0.000135	-0.539442	0.5900
R-squared (R^2)	0.654779	Durbin-Watson stat	1.885611	
Adjusted R-squared ($\bar{R}^2$)	0.624558			
F-statistic	21.66614	Prob(F-statistic)	0.000000	

Notes: *** significance level of 1%; ** significance level of 5%; * significance level of 10%
Source: Adapted from Eviews

The R2 and Ȑ2, measures of the fitness of the model, assume reasonable values considering the data limitations, with the explanatory variables included in the model explaining 62,5% of the variability of the loan officers' PAR_{30}[17].

Thus, the main conclusion to be taken from the econometrical study is that the hypothesis that loan officers' personal characteristics influence the PAR_{30}, used as a proxy for over-indebtedness, is rejected in the case of ADOPEM for the period studied. The variables with statistical significance are not directly controlled by the loan officer: some are environmental factors, namely the local poverty level or being in a rural area; others can be seen as institutional factors that are strongly influenced by ADOPEM's strategies, policies and procedures (accomplishment of goals, type of credit programme, or time as manager of the branch).

These results seem to be in contradiction with other studies in which the individual loan officers had a decisive role in the performance of the institutions. This was the case in Vivacred, a Brazilian institution where Agier (2012) concluded that the ability of loan officers was significant to the success of the loans, and it was positively correlated with experience. In this study, the authors had access to the active credit contracts, so a different unit of analysis was used. Moreover, there was a significant difference regarding the loan officers' population because although the number of officers was substantially lower than in ADOPEM (40), there was heterogeneity in their personal characteristics (47,5% were men, 45% married, 47% had previous financial experience and 60% had a university degree), in contrast with the Dominican institution.

It is important to note however that the lack of variability in the case of ADOPEM results from a clear management strategy that translates into the recruitment and training policies. This was something that was not completely captured in the field observation. While the prevalence of men in credit officer positions was visible even visiting a small number of branches, the uniform educational level came as a surprise, especially as the participation in different credit officers' training sessions gave the impression that the qualification levels were diversified.

[17] Additionally, the F statistic is significant and the Durbin-Watson statistic shows no autocorrelation among the disturbance terms (i), one of the assumptions of the classical linear regression used.

5. CONCLUSIONS

An MFI's general goal is promoting financial inclusion. In order to accomplish this objective, they implement innovative lending methodologies and procedures to overcome the barriers associated with information asymmetries in the financial markets. Among the procedures, those related to screening and recovery are critical to mitigating adverse selection and moral hazard problems that translate into delinquency situations, either because the client is unable to repay or is unwilling to do so. Considering that both situations are signs of clients' over-indebtedness, then screening and recovery can be identified as important phases in the definition of prevention strategies.

Accepting that loan officers have a key role in these two phases, as they are the link between the institution and the clients, it can be questioned if their individuality influences the MFI's performance. This hypothesis, in line with the results of previous research on loan officers, was tested through the case study of Banco ADOPEM, an MFI leader in the microfinance sector in the Dominican Republic.

The MFI is a financially solid institution that has implemented policies and procedures through the years incorporating its own experience and the best practices in the sector. The institution has a well-designed credit process centered on loan officers whose work is complemented and facilitated by other staff of the bank through mechanisms such as the training programme, the institutional career plan, the monetary and non-monetary incentives' schemes, and the logistical and technological infrastructure. In relation to screening and recovery policies, the effort to standardize procedures, the relevance given to combining formal and informal sources of information, the dual criteria for loan approval (capacity and willingness to repay), and the close monitoring of arrears situations stand out.

The case study was based on field observation and statistical analysis of data collected from ADOPEM's management information system. The field observation allowed perceiving the existence of differences between the loan officers accompanied (personalities, motivations, relationships with clients, time dedicated to different tasks) that could suggest the confirmation of the research hypothesis. However, these observed differences seemed to be supressed when the whole group of ADOPEM's credit officers was considered. Indeed as of June 30, 2013, they were mostly men, single, highly educated and with no previous experience in the financial sector.

This low variability on the credit officers' profile, a consequence of the MFI's recruitment and training policies, and the strong investment in the standardization of procedures at the operational level, helps explain the results of the econometrical study. The hypothesis that loan officers' personal characteristics had an impact on their portfolio repayment performance, proxy for clients' over-indebtedness was rejected with all variables related to the loan officers' individual characteristics being not significant. Instead, the statistically significant variables were connected with the environment or were strongly influenced by the policies and procedures defined by the institution's management.

Even taking into account that this was an initial analysis with limitations associated with the number of observations, the use of proxies and the unavailability of data for potentially significant variables, the prevalence of the organizational structure over the loan officers' individuality in the repayment performance of the institution at the moment of the analysis results clearly from the case study. It would be very interesting to verify if this conclusion would be sustained considering different periods.

Furthermore, the experience of ADOPEM in the Dominican context seems unique and has a lot to do with top management strategic decisions and the institution's distinctive culture; thus, it would also be interesting to develop this type of analysis in different institutions in the Dominican Republic, where for instance ADEMI and FONDESA have their own identities and culture, and other countries with distinct environmental contexts.

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