

Scientific Area: Corporate Governance - Performance

## **Relationship Banking, Governance and SME's Performance: The Portuguese Evidence**

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# **Relationship Banking, Governance and SME's Performance: The Portuguese Evidence**

## **ABSTRACT**

The aim of this work is to analyze how bank relationships, corporate governance and the interdependence that is established between them, affect corporate performance, based on a sample of 5,900 Portuguese SMEs. The banks and the enterprises establish relationships which enable them to overcome problems of asymmetrical information thereby overcoming difficulties felt in obtaining financial resources. In addition, the specificities that SMEs face, namely their ownership structure, as they are often owned and controlled by families, lead us to study the role played by corporate governance and the various control mechanisms in achieving corporate objectives. These features confer an important supervisory role on credit institutions.

**KEY WORDS:** Bank Relationships, Corporate Governance, Performance.

## **RESUMO**

Este trabalho tem por objectivo analisar o modo como as relações bancárias, o governo da empresa e a interdependência que se estabelece entre estas, condicionam o desempenho empresarial, tendo por base uma amostra de 5.900 PME's portuguesas. Os bancos e as empresas estabelecem relações que permitem superar problemas de assimetria de informação aliviando, desse modo, as dificuldades sentidas na obtenção de recursos financeiros. Paralelamente, as especificidades que estas empresas encerram, nomeadamente a natureza familiar que a estrutura de propriedade e controlo lhes confere, remetem-nos para o estudo do papel exercido pelo governo da empresa e dos diferentes mecanismos de controlo, no cumprimento dos propósitos empresariais. Estas dimensões reservam às instituições de crédito, um importante papel de supervisão.

**PALAVRAS-CHAVE:** Relação Bancária, Governo da Empresa, Desempenho.

## **1. INTRODUCTION**

In recent years small and medium enterprises (SMEs) have been the object of numerous studies for their capacity to generate work and for the role they play as creators of wealth. In market systems, issues of survival, the complexity and dynamism of the business environment require an increasingly deepened understanding of organizations as well as the variables or factors that become key elements in their performance.

Many authors are unanimous in stressing the internal factors which influence corporate performance highlighting: bank relationships (Degryse and Ongema, 2001; Ongema and Smith, 2001), corporate governance (Bhagat and Bolton, 2008), human resources (Rogoff, Lee and Suh, 2004) marketing (Kara, Spillan and Deshields, 2005), quality, innovation and technological resources (Donovan, 1996), cultural values and information's systems (Tse and Soufani, 2003). This study addresses the first two of these.

The difficulties SMEs feel in obtaining financial resources together with the scant possibility of access to capital markets means that the credit market constitutes their main source of funding. For this reason, studying bank intermediation becomes particular relevance particularly when assessing the

contribution of the company's performance of the (Boot, 2000). Relationships with their creditors play a particularly important role for companies subject to greater information asymmetry.

In addition, these companies have witnessed the transformation processes that are characterized by: i) a growing separation between ownership and management and ii) their capital being opened up to outside investors. This places them in a new paradigm which translates into the need to assess how the company's governance conditions its performance. As Denis and McConnell (2003) have said this revolves around two main streams of research: i) one concerned with the variables related to ownership structure and ii) the other highlighting the more institutional aspects such as those connected to the Board and the Director General.

In the European institutional context, we are also witnessing greater involvement of financial institutions within companies, both as creditors and shareholders, and as participants in management bodies (Byers, et al. 2008).

Specificities which are inherent to SMEs – in terms of information asymmetry, the value of information produced and at times conflicting interests between management, creditors and shareholders – attribute a determinant role in understanding business performance to bank relationships.

The aim of this work is to analyze the interdependence between bank relationships, corporate governance and performance in the context of Portuguese SMEs. To this end it is organized thusly: the importance of bank relationships and governance in performance is reviewed in the next section; in section 3 the hypotheses to be tested are formulated; section 4 presents the methodology, sample and variables used; section 5 presents the main results obtained and finally, the main conclusions and limitations of this study are discussed in section 6 as well as suggestions for future work.

## **2. SURVEY OF THE LITERATURE**

The question of the bank relationship constitutes a complex but essential topic when one wants to analyze companies' financial performance insofar as this conditions the terms of their funding.

The bank relationship is usually associated with the informational relationship which is established between the bank and the customer (especially credit customers), influencing the contractual terms proposed for the various banking products and services either acquired or to be acquired. Boot (2000, p.10) defines the bank relationship as "the provision of banking/financial services to the customer (company) by a bank (financial intermediary) which invests in the gathering of specific information (private information) to assess its profitability, taking multiple interactions over time into consideration". Degryse and Ongena (2007) say that banks as the main creditors reduce information asymmetries, signalling the quality of the company to the market. They increase availability of credit and simultaneously play a disciplinary role with managers, keeping them from executing unviable projects. The exchange of information that stems from the bank relationship has a high degree of privacy, which is fruit of the trust established (Groessl and Levratto, 2004). In turn, this results in a learning process marked by positive experiences which the parties in the credit contract go through. This helps to reduce the climate of uncertainty surrounding the relationship.

The solidness of the relationship is evaluated from the following dimensions: the *duration* of the relationship, the *extension* of services acquired and the *number* of bank relationships.

The measure that is most widely used is *duration* of the relationship which is the length of time the relationship lasts from its beginning. The importance of this dimension is that it reflects private information accumulated by the creditor throughout various periods of time. This information is difficult to transfer outside of the relationship. According to Ongena and Smith (2001), as the

relationship is established, the credit institution may observe, learn and use private information on its customers. This, in turn, is determinant in celebrating new contracts. From the perspective of the company, this is synonymous with duly servicing the debt, the viability of the project and solvency of its promoter.

The second dimension is *amplitude* (the extension of services acquired). Ongena and Smith (2001, p. 452), define it by the quantity of services the bank offers and the company uses. The interaction of the customer with various financial products provides the bank greater rigour and efficiency in the information obtained. In conceding various financial products/service, the bank is able to introduce greater contractual flexibility, set pricing policies as a function of the different services and discern more about the repayment capacity of the company. The range of banking products purchased may condition granting credit in various ways: i) it increases the information the bank has on the company, ii) the bank may dilute the fixed costs of collecting and processing information over a wider range of products and services (Bornheim and Herbeck, 1998).

Finally, the other variable used is the *number of simultaneous bank relationships* that the company establishes. Bank relationships may be classified, according to the number of stakeholders, as bilateral (the company and a bank) and multilateral (the company and various banks). For Diamond (1984), bilateral relationships give the creditor bank the greatest incentive to supervise the company's activities and enable the duplication of vigilance and control to be eliminated. Nevertheless, this relationship confers upon the bank an information monopoly which may be used for its own benefit, conditioning the investment decisions of the company (Sharpe, 1990; Rajan, 1992). Anticipating these problems (the hold-up problem), companies have an incentive to establish multilateral connections.

The bank relationship fosters the production and sharing of information dispensing with, in many circumstances, pre-assessment regarding their credibility. The presence of information asymmetry in the bank relationship creates problems, the solutions of which entails costs, called agency costs, particularly felt when proponents of credit are small and/or tend to be opaque as is the case with SMEs (Psillaki, 1995).

The bank relationship provides benefits to stakeholders insofar as it develops confidentiality, improves negotiating flexibility, reduces agency problems and allows a reputable image to be built and consolidated (Cánovas and Solano, 2006). However, there are disadvantages as well, including when the benefits of the relationship are not shared equitably. Those which stem from appropriating benefits, whether on the part of companies (the bank has an incentive to concede more credit than the true risk level of the company can support – the soft budgeting problem), whether on the part of the banks (who take advantage of the fact that the company is “tied up” informationally in order to impose higher prices – the hold-up problem) (Sharpe, 1990 and Rajan, 1992).

Taking agency theory as the conceptual watermark, this work also intends to assess in the light of existing research, how the various mechanisms of corporate governance and the interaction established between these mechanisms condition performance.

The separation between ownership and control generates conflicts of interests between investors (shareholders and creditors) and administrators. Thus, the need arises to implement internal and external control mechanisms that harmonize the various interests given the impossibility of celebrating complete contracts<sup>1</sup> (Baysinger and Hoskisson, 1990). Investors provide financial resources that need to be remunerated and the company should implement a set of mechanisms that inhibit privileges to be obtained by some stakeholders over others (Prowse, 1995). The dominant perspective in the literature on this issue focuses its attention on the conflict of interests between investors (property owners) and administrators (who control and use the resources) and, consequently, the inefficiencies that arise

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<sup>1</sup> The complete contract collects all of the obligations of the parties in the contractual relationship, before any eventuality and penalizes whoever does not comply with them. The impossibility of defining all contingencies and the costs associated with the preparation of such a contract give rise to incomplete contracts.

therein. The absence of conflict occurs when ownership and the power to take decision fall on a single person. When this does not happen, corporate governance and its instruments are limited to the relationship established between investors and administrators, whose decisions condition returns (Shleifer and Vishny, 1997).

The impossibility of celebrating complete contracts may give rise to the discretionary directive. Agreements between the administration and investors contemplate in general what to do with the resources affected to the company and the income generated.

These problems of the discretionary directive lead to governance mechanisms being established through which investors can assure their income. Nevertheless, these mechanisms do not always work in such a way as to satisfy the interests of all of the shareholders or to guarantee maximizing the value of the company. Therein lies the need for the corporate government to associate itself with the legal instruments and effective control mechanisms so as to safeguard against expropriation of minority shareholders (Johnson, et al. 2000).

It has been difficult to obtain a consensus on the concept of “the company’s government,” which is probably a symptom of its complexity and scope. Nevertheless, the idea remains that there is a sharing of power and that the results between the various parties whose interests do not always coincide.

The literature on the company’s government, has given importance to contractual problems among shareholders and directors as well as to the study of mechanisms available to investors to control their resources and minimize conflicts of interest. However, work carried out on concentration of ownership has been giving a new focus to the agency theory: it displaces the main/agent relationship to the connection between majority and minority shareholders where expropriation of “private benefits”<sup>2</sup> assumes a crucial role, which provokes a conflict of interests (Gregoric and Vespro, 2003).

The object of the literature that has been produced in this area has been large companies. However, within corporate finance SMEs have gained growing importance due to the features they entail. Among these emphasis is on the family nature that the ownership structure and control confers upon them. This means that contractual relationships which are established in the company contemplate family ties besides and beyond economic ties.

The relationship between the banking system and the company’s government has been raising growing interest in corporate finance. The European institutional context is propitious to financial entities playing different roles in companies both as creditors and shareholders and participants in the management bodies (Byers et al., 2008).

In a context marked by information asymmetries, the literature has questioned the role played by participation of banks in corporate performance. Even though a broad consensus can be found in theoretical work that highlight improved efficiency, the question remains open as to whether this translates into higher corporate profitability or rather, if it reverts back to the bank through expropriation of private benefits (Weinstein and Yafeh, 1998).

We may conclude by stating that participation of banks in the ownership structure is a multifaceted reality, where opportunities and the limitations they occasion are not necessarily symmetrical for both parts. The characteristics of each country’s legal system, the structure of the financial system, the relative weight of the capital market and good banking practices vary in each case and may provoke significant differences in the effects of the relationship between banks and companies.

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<sup>2</sup> “Private benefits” result from the majority shareholder using his control power to obtain a fraction of the residual benefits that go beyond the part that his equity confers upon him.

### 3. HYPOTHESES TO BE TESTED

The theory on bank intermediation gives bank relationships a crucial role in reducing information asymmetry. Companies may reduce problems of information, establishing strict relationships with banks, and in turn, invest in collecting and analyzing their customers' information. The proximity and repeated interactions over time may be beneficial for the company insofar as they allow it to greater availability of credit and better contractual conditions.

The exclusivity of the bank relationship increases investment in reciprocity of information and reduces duplication of costs thereby contributing to maximizing the company's value (relationship hypothesis). Nevertheless, the exclusive relationship grants monopoly power to the bank, giving it an incentive to practice opportunistic behaviour (hold-up hypothesis). The other side of the coin, the multilateral relationship, reduces the hold-up problem, but also reduces incentives to intensify the relationship.

One of the aims of this work is to assess the importance to attribute to each of the previous hypotheses to corporate performance, expressed thus:

**H<sub>1</sub>:** *The relationship between the company and the financial institution may improve corporate performance.*

Among the actions that the company can develop to improve its performance, the continuity of the relationship the company has with the financial institution is highlighted. A review of the literature on this says the same can be measured by instrumental variables such as: the number of financial entities the company habitually works with, the duration of the relationship or the amplitude of the financial services contracted with the financial institution. Given the data available, only the first two relationships will be tested in the following hypotheses:

**H<sub>11</sub>:** *The number of financial institutions with which the company works is negatively related to its performance.*

There are contradictory propositions surrounding this hypothesis. On the one hand, a reduced number of financial entities, or in an extreme situation – a single bank, allows information asymmetries and funding costs to be reduced and facilitates access to credit (Degryse and Ongena, 2001). On the other hand, there are arguments which defend that the benefits of competition among the various financial entities greatly outweigh the advantages defined above (Weinstein and Yafeh, 1998, Agarwal and Elston, 2001).

**H<sub>12</sub>:** *The duration of the bank relationship conditions the company's performance positively.*

This assertion stems from the fact that a stable relationship gives the parties greater mutual understanding and consequently lower constraints in funding. The relationship allows value to be created to the extent that supervision and control costs decrease. The credit institution may transfer part of this to the company, reducing the cost of funding (Athavale and Edmister, 2004, De Bodt et al., 2005).

With regard to corporate governance concentration of ownership appears as a natural mechanism for monitoring the operations of company directors. The shareholders with a significant participation are willing to assume this responsibility whenever the expected benefits are greater than the costs arising from the exercise. The influence of the shareholder structure on corporate performance is conditioned by the amplitude of the conflicts of interests between majority shareholders and the directors of the company in which they participate as well as between the various investors who comprise the company's equity. In the continental model (where the majority shareholder is a family, industrial or financial group) conflicts of interest are greater than those found in the Anglo-Saxon model, where investors (investment funds, pensions or insurance companies) have lower conflicts of interests with

the company they participate in. Nevertheless, the problem of supervision remains, particularly in the presence of private information.

As for concentration of ownership and the positive effect it may generate in corporate performance, some authors defend greater dispersion arguing that concentration of ownership not only reduces liquidity but also increases: i) the discretionary directive (Burkart and Panunzi, 2006), ii) the risk assumed by the majority investor and iii) private benefits obtained through expropriating the wealth of minority shareholders.

Obtaining private benefits allows the expropriation hypothesis to be formulated whereby majority shareholders use their control power to condition the decisions of the board orienting them to their own benefit. Nevertheless, it does not exclude the property supervision hypothesis from being complied with simultaneously, contributing to reducing the discretionary directive and adopting correct strategies. However, concentration of ownership gives rise to costs which may cancel out the public benefits stemming from supervision.

Thus, the relationship between concentration of ownership, identity of the majority shareholder and corporate performance turn into an empirical question the result of which depends on the equilibrium between public benefits which result in greater supervision of private interests which motivate the majority investor and the degree of conflicts of interest between shareholders and directors enable the company's value to be maximized.

In this context the following hypotheses are formulated:

**H<sub>2</sub>:** *The mechanisms of governance condition corporate performance.*

Ownership structure and the characteristics of the board of directors constitute pillars through which corporate governance condition performance.

**H<sub>21</sub>:** *The ownership structure of the company is positively related to corporate performance.*

The ownership structure of the company conditions corporate performance, taking into account the equilibrium between private benefits that the majority shareholder can obtain (which vary as a function of his identity), the public benefits which result from a certain shareholder structure (which translate into greater/lesser supervision and alignment of interests) and costs associated with the level of concentration of. The ownership structure aggregates three distinct dimensions:

- The identity of the shareholder (family member, institutional, bank...): the family nature of ownership creates greater performance as a consequence of the convergence of interests between shareholders and directors;
- Concentration of ownership: if private benefits outweigh public benefits, there is a negative impact on performance;
- Participation of the directors in the company's equity: this participation provides a means to obtain private benefits, conditioning performance negatively.

**H<sub>22</sub>:** *The characteristics of the board of directors conditions corporate performance positively.*

The revision of the literature enables us to identify the main characteristics of the board of directors as: its nature (internal/external) and size (Dalton et al., 1998; Daily et al., 2007). Nevertheless, the availability of data allows us to test the relevance of the shareholders who participate in the board and its size. The coincidence of roles (shareholder and administrator) calls on contradictory effects which stem from the expropriation hypothesis and the efficient supervision hypothesis. The idea of obtaining private benefits prevails which leads to an expectation of a negative impact on performance. In turn, the efficiency of the administration in its vigilance and supervision functions is

evaluated by its size. Communication and coordination problems inherent to this collective decision-making body are reduced to the extent that they reduce the number of participants. Therefore, greater efficiency in supervision is expected as its size decreases.

#### 4. METHODOLOGY, SAMPLE AND DATA

##### 4.1. PROPOSED MODEL

The aim of this research is to demonstrate the explicative power of a set of independent variables which characterize bank relationships and corporate governance on corporate performance in a sample of Portuguese SMEs using a multiple regression model.

Based on the revision of the literature and given the hypotheses to be tested, we formulated the following model:

$$Y = \beta_0 + \beta_1 \text{No. of banks} + \beta_2 \text{Duration} + \beta_3 \text{Rel. Increase} + \beta_4 \text{Rel. maintain} + \beta_5 \text{Shareholder size} + \beta_6 \text{Family} + \beta_7 \text{Industrial} + \beta_8 \text{Financial} + \beta_9 \text{Concentration} + \beta_{10} \text{Internal owner.} + \beta_{11} \text{Size of Board} + \beta_{12} \text{Nature of Board} + \beta_{13} \text{Micro} + \beta_{14} \text{Small} + \beta_{15} \text{Reputation} + \beta_{16} \text{Financial Struct.} + \beta_{17} \text{Bank Debt} + \varepsilon$$

Where:

Variables	Definition
Performance	
<i>ROA</i>	Operating income / assets
<i>EVB</i>	Volume of business / number of workers
Bank Relationship	
<i>No. of Banks</i>	Number of bank entities in 2007
<i>Duration</i>	Number of common bank entities (2003 and 2007) / Number of bank entities in 2007
<i>Rel. increase</i>	Number of bank entities for the period under study increased
<i>Rel. maintain</i>	Number of bank entities for the period under study did not change
Corporate Governance	
<i>Shareholder size</i>	Number of Shareholders
<i>Family</i>	Family nature of ownership. Percentage of participation in shareholder structure
<i>Industrial</i>	Industrial nature of ownership. Percentage of participation in shareholder structure
<i>Financial</i>	Financial nature of ownership. Percentage of participation in shareholder structure
<i>Concentration</i>	<i>Herfindalh Index</i> , calculated thus: $H = \sum_{i=1}^n P_i^2$
<i>Internal owner.</i>	Owned by who holds active management positions / total ownership.
<i>Size of Board</i>	Number of board members
<i>Nature of Board</i>	Number of shareholders who hold management positions
Control	
<i>Micro</i>	Classified by Decree-Law no. 372/2007 as a micro company
<i>Small</i>	Classified by Decree-Law no. 372/2007 as a small company
<i>Reputation</i>	Age of the company
<i>Financial Struct.</i>	Liabilities / equities
<i>Bank Debt</i>	Bank liabilities / liabilities



## 4.2. SAMPLE AND DATA

Choosing SMEs as the object of study is owing to their having a particular set of characteristics that set them off from the rest. Firstly they are subject to bigger informational problems in the financial market. Therefore, the value of the bank relationship based on reciprocity of soft information takes on particular relevance. Smaller and younger companies as well as those which are informationally opaque because they do not have a credit history and in the impossibility of credibly disclosing their quality associated with the absence of a separation between ownership and management, information asymmetries between insiders and outsiders increase considerably. Secondly, small companies are limited with regards to obtaining external resources from financial institutions in that only large companies have access to the debt market. Thirdly, these companies are particularly relevant in our corporate context. They represent 99.6% of the corporate units in the country, creating 75.2% of the jobs and representing over half of the business volume (56.4%). They are extremely important in any of the sectors but are especially relevant in tourism and construction, in contrast with the energy sector where their role is felt less (IAPMEI, 2008).

The main source of information is SABI (Iberian System of Balance Sheets Analysis) which contain accounting and financial information on Portuguese and Spanish companies. The universe of Portuguese companies in the database (version 33.1, update 110 – October 2008) is 332 743. It is possible to obtain accounting information from 255 770. Because one of the concerns of this study is the impact of bank relationships on performance and given the unavailability to obtain data which allow us to ascertain duration, we adopted the procedure of identifying in distinct moments (2003 and 2007) the credit institutions with which the company had relationships. Through this procedure it is possible to determine the number of credit institutions with whom the relationship is equal to or lower than 4 years.

The need to restrict the sample to companies which have a set of requirements – in terms of their size (number of workers, volume of business, assets), of their equity and information on banks and ownership – means that filters are introduced into the sample. The following table presents the filters introduced the criteria used and the number of companies selected.

**Table 1:** Filters, criteria and number of companies

Filter	Criteria	Number of companies		
		2003	2007	Common
Country	Portugal	84,236	332,743	
Accounting data	Available		255,770	
Number of employees	Min: 1		221,292	
Number of employees	Max: 250		220,560	
Vol. of business	Min: 1 euro		212,785	
Vol. of business	Max: 50 million euro's		212,527	
Total assets	Min: 1		212,362	
Total assets	Max: 43 million euro's		211,970	
Banks	All	22,556	109,164	16,607
Ownership	100%			11,555
Equity	Positive			10,687
SME	Decree-Law 372/2007			7,672
ROA; EVB	Mean $\pm$ 3 x Standard deviation			7,414
RO 2007	Positive			5,900

### 4.3. VARIABLES

Based on the literature the indicators below were chosen to measure each of the relevant attributes for this study.

The empirical work dedicated to studying corporate performance have highlighted that its quantification is carried out based on market information indicators or accounting information collected in the company. The population under study restricted the choice, limiting indicators to information made available by the company.

The use of profitability indicators as an expression of corporate performance constitutes the support of a great deal of empirical work on this topic. Among these indicators the following what stands out is economic profitability of assets (ROA) (Pedersen and Thomsen, 2001; Wiwattanakang, 2001).

Joh (2003) states the advantages of using ROA as a performance indicator. He argues that: i) existence of inefficient stock means that the share price does not reflect the totality of information available, ii) there is evidence that accounting profitability is more strongly associated with survival than *Tobin's Q*, and iii) it allows performance of companies which are not listed on the stock market to be evaluated.

*ROA* measures the company's performance and reflects the profitability of the investments made. An advantage of this indicator stems from the fact that it is not influenced by capital structure as it does not include financial costs, expressing in good measure what the company does with its assets. Its analytical expression is given by the quotient of operating income (OI) and total assets (AT).

Besides profitability, efficiency of volume of business (*EVB*) is referred to in a number of empirical works (Boubakri et al., 2005, D'Sousa and Nash, 2007) as a performance indicator assessed by volume of business per employee (Vol. Bus./Emp.).

To measure the strength of the relationship bank the literature shows three indicators: duration, the number of banks and the amplitude of services rendered. Due to unavailability of data, only the first two are studied here.

Duration is measured by the number of years which the company maintains a relationship with a credit institution. Given the difficulty in obtaining information on the duration of bank relationships, an alternative procedure was adopted which consists of indentifying the credit institutions with which each company maintained a relationship at distinct moments in time (2003 and 2007). If company *i* worked with credit institution *A* in 2003 and 2007, the relationship was assumed to have lasted throughout the entire period. With this assumption in mind, it is possible to assess the number of credit institutions with whom a relationship lasts at least four years and measure its relative importance. This indicator is expressed as the quotient of the number of banking institutions with which a relationship was maintained in the study period (from 2003 to 2007) and the number of institutions in 2007 (*Duration*).

The bond with the bank is also measured by the number of banking entities (*No. of Banks*) with which the company establishes relationships and may be classified as bilateral or multilateral. In considering the number of institutions that are part of the corporate relationship it is important to understand how the way the relationship evolves conditions performance. In this sense, bank relationships may be classified under three distinct categories: increasing (*Rel. increase*), maintaining (*Rel. maintain*) or decreasing (*Rel. decrease*).

Under the company's government, diverging interests between the stakeholders lead to developing regulating mechanisms of potential conflicts, ensuring that pursuit of interests is balanced and sustains the objectives based on the ownership structure and in the characteristics of the board of directors. The number of shareholders, their identity and concentration as well as internal ownership are all relevant

in the ownership structure dimension. As for the characteristics of the board of directors, importance is given to the number of board members and among these, those who by their nature are simultaneously shareholders.

The size of the shareholder structure is given by the number of participants in the company's equity (*Shareholder size*). Identity expresses how ownership is shared by the different interest groups: the family (*Family*), industry (*Industrial*), financial (*Financial*) and others (*Others*). Its value is expressed as a percentage, given by each one's participation in the total equity.

As a measure of concentration of ownership the *Herfindahl* index was adopted. It is calculated as the sum of the squares of the participation of each shareholder in the company's equity and varies between 0 and 10,000, which is the situation when a sole shareholder has all of the equity (*Concentration*).

Internal ownership refers to managers' participation in the company's equity. It is evaluated by the property held by whoever holds management positions in the company (*Internal owner*).

The characteristics of the board of directors are expressed by the number of directors (*Size of Board*) and by the number of shareholders who participate in this body (*Nature of Board*).

The literature also allows us to identify a set of characteristics inherent to the company which are susceptible to condition the relationships under study. Among these let us highlight the following: the corporate dimension, reputation and debt. Among these control variables that have been shown by the literature, we always made sure the model did not include variables which are found *a priori* to be correlated by construction with the variable it is explaining. This concern led us to disregard some of the control variables that have been used in the literature.

The corporate dimension is evaluated by a set of variables which enable us to classify companies as a function of a multi-criteria vector which aggregates the number of employees, volume of business and total assets. Decree-Law 372/2007 was adopted to base this work so as to group companies as micro (*Micro*), small (*Small*) and medium (*Medium*).

According to Degryse and Van Cayseele (2000) the company's age reflects the reputation openly transmitted to the market. This plays a role which is distinct from the information that the financial intermediary acquires privately over the course of the relationship. In this sense, age emerges as an indicator of the company's reputation and survival defined by the number of years since it was created (*Reputation*).

The level of debt is a sign that is sent to the market on the nature of the company. Among SMEs, taking into consideration the great limitations that they are subjected to in access to external funding, this indicator is an important differentiator at the corporate level. It reflects the company's capacity to mobilize resources from different sources. Despite the plethora of indicators used, we adopted the proxy which considers the relationship between total liabilities and equity (*Financial Struct.*). No less important is the weight of bank debt in the company's liabilities determined by the quotient of bank liabilities and total liabilities (*Bank Debt*).

## 5. RESULTS

Table 2 shows the results obtained from estimating the model with *ROA* and *EVB* as performance indicators. For the first 2.8% (*Adjusted R Square*) of the average variation, *ROA* is determined by the variables included in the model and for the second model, they explain 8.0% (*Adjusted R Square*).

Another aim is to assess whether the different parameters of the models are different from zero. The *t test* reveals that for model 1 *No. of Banks*, *Rel. Increase*, *Rel. Maintain*, *Size of Board*, *Micro*, *Reputation*, *Financial Struct.* and *Bank Debt* have values that are significant for levels of significance

that are lower than 10%. These are determinant variables in the model. In model 2, for the same level of significance, the effects of the following variables are statistically different from zero in the variable to be explained: *No. of Banks, Duration, Concentration, Size of Board, Small, Reputation* and *Bank Debt*.

**Tab.2:** Results of estimation

Estimation	ROA (model 1)			EVV (model 2)			Colinearity	
	Standardiz Coefficients Beta	t	Sig.	Standardiz Coefficients Beta	t	Sig.	Tolera nce	VIF
<i>Constant</i>								
<i>No. of Banks</i>	-0,081	-4,994	0,000	0,097	6,206	0,000	0,633	1,579
<i>Duration</i>	-0,017	-1,114	0,265	-0,050	-3,286	0,001	0,679	1,473
<i>Rel. increase</i>	0,047	2,178	0,029	-0,012	-0,565	0,572	0,355	2,815
<i>Rel. maintain</i>	0,048	2,414	0,016	-0,026	-1,340	0,180	0,414	2,416
<i>Shareholder size</i>	-0,003	-0,157	0,875	0,024	1,194	0,233	0,394	2,536
<i>Family</i>	0,005	0,043	0,966	-0,007	-0,059	0,953	0,011	92,606
<i>Industrial</i>	0,052	0,449	0,654	0,108	0,947	0,344	0,012	82,653
<i>Financial</i>	0,001	0,025	0,980	0,024	0,637	0,524	0,107	9,337
<i>Concentration</i>	0,003	0,164	0,869	0,057	3,174	0,002	0,476	2,099
<i>Internal owner.</i>	0,020	0,749	0,454	-0,021	-0,802	0,422	0,230	4,356
<i>Size of Board</i>	0,035	1,754	0,079	0,046	2,396	0,017	0,418	2,394
<i>Nature of Board</i>	-0,028	-1,001	0,317	0,018	0,672	0,501	0,207	4,826
<i>Micro</i>	-0,064	-1,804	0,071	0,003	0,076	0,939	0,131	7,621
<i>Small</i>	-0,008	-0,241	0,809	0,116	3,799	0,000	0,166	6,010
<i>Reputation</i>	-0,058	-4,213	0,000	-0,049	-3,671	0,000	0,884	1,131
<i>Financial Struct.</i>	-0,068	-5,243	0,000	-0,005	-0,394	0,693	0,990	1,010
<i>Bank Debt</i>	-0,095	-7,114	0,000	0,028	2,152	0,031	0,920	1,087
Adjusted R Square	0,028			0,080				
Durbin-Watson	1,952			1,955				
F	11,035			31,076				
Sig.	0,000			0,000				

The *F* test, which evaluates the model overall and not each of the parameters in isolation shows, that for a significance level of 1%, the null hypothesis of the coefficients of the independent variables considered in each model is to be rejected.

Through the *Durbin-Watson* test the existence of independence among the residual random variables is to analyzed. That is, its covariance is null,  $E(\epsilon_i, \epsilon_j) = 0, i \neq j$ . Since the value of the test 1.952 (model 1) and 1.955 (model 2), approaches 2, we can conclude the non-existence of autocorrelation between the residuals.

The linear regression model presupposes that the explanatory variables are linearly independent. That is, that multicollinearity is not found. The intensity of the multicollinearity may be analyzed through tolerance and VIF. Tolerance measures the degree to which a variable *X* is explained by all the other independent variables. Tolerance varies between zero and one. The closer it is to zero, the greater the multicollinearity. The value below which there is multicollinearity is usually considered to be 0.1. The inverse of tolerance is called VIF. The closer to zero VIF is, the lower the multicollinearity. The value usually considered to be the limit above which there is multicollinearity is 10. The values in Table 2 show the possibility that this may be found among family and industrial ownership.

Table 2 shows that the *No. of Banks* is statistically significant in both models, but has opposite signs. The increase in the number of banks has a negative impact on *ROA*. This may be explained by the decrease in the incentive of the creditor bank(s) to monitor the company's activities, thus duplicating the efforts of vigilance and control. Nevertheless, this relationship confers an information monopoly on the bank which can be used for their own benefit, conditioning the company's investment decisions. For this reason, the impact this variable on *EVB* is revealed to be positive. Companies, anticipating hold-up problems have an incentive to establish multilateral bonds. In this sense, Thakor (1996) advocates that companies should establish multilateral relationships insofar as thusly they reduce problems associated with credit rationing. The work of Farinha and Santos (2002) focuses on the factors that determine the increase in banking relations for Portuguese companies and identify the reasons which make them replace bilateral relationships with multilateral ones, referring that: i) the companies with high income increase the number of bank relationships in order to minimize hold up costs, and ii) companies in financial trouble increase the number of bank relationships as a way of overcoming credit restriction imposed by the bank in the relationship. In a study on 426 micro and small companies in the central region of Portugal, Matias et al. (2009) conclude that higher concentration of credit in the lending bank presented a positive impact, generally speaking, in the terms of financing translating into lower interest rates and higher amounts of credit..

*Duration* of the bank relations is only for the *EVB* and exercises a negative effect. Matias et al. (2009) also say that a longer duration in the bank relationship does not bring benefits to companies in terms of improved credit conditions. The duration of the bank relationship only presents benefits in terms of lower demands of real guarantees and then only for smaller companies. It is not reflected in lower premiums on risk or higher limits on credit, so that the conclusion is that the relationship's duration becomes irrelevant as an indicator of the solidness of the relationship. Hernandez and Martinez (2006) analyze the effect of bank relationships on bank debt for 184 small Spanish companies for year of 1999. They used duration of the relationship and number of creditors as measures and conclude that the SMEs which interact with a smaller number of banks obtain funding at a lower cost. They also observe that financial institutions show a clear tendency to increase the demand for personal guarantees as the relationship progresses.

The *Rel. increase*, *Rel. maintain* variables are significant to *ROA*. In the competitive market, banks have strong incentives to invest in the relationship for the negotiating power that results from the endogenous bond established with the company. It is evident that the larger the number of banks which hold information on the credibility of a company, the lower the value this information has for each of them. Consequently, companies who maintain or increase relationships incur lower hold-up costs, generating *a posteriori* a greater number of informed creditors which reduces each one's incentive *a priori* to participate in the relationship. Freixas (2005) considers greater competition in the banking sector reduces the monitoring effort required for each relationship. He also analyzes the effect of the increase in competition over the availability and cost of credit, concluding that in less competitive markets the availability of funds decreases and interest rates increase.

*Concentration of ownership* establishes a positive relationship with *EVB*. Empirical studies carried out do not allow definite conclusions to be drawn on the impact of concentration of ownership on performance because contradictory effects coexist. If on the one hand concentration of ownership allows greater supervision and na increased common benefit, on the other, it enables a reduced number of shareholders to obtain private benefits (Holderness, 2003; Thomsen, 2005). Although a number of authors advocate the development of legal mechanisms capable of promoting decentralized capital structures, others argue that ownership should remain centralized. With the aim of investigating this issue, Edward and Weichenrieder (2004) evaluate the positive/negative effects for the minority shareholder resulting from the presence of a majority shareholder for a set of 158 German companies. They say that the positive effects (common benefits increase as fruit of the reduction of principal-agent problems) outweigh the negative effects (obtaining private benefits), so that concentration of ownership translates into a benefit for the minority shareholder.

The board of directors, as a vertex in the company's internal control system, has one of the characteristics that make him a key element in the study of its governance. The number of directors is expressed by *Size of Board*. The values shown in Table 2 allow us to say that this variable has a positive relationship with *ROA* and *EVB*. Nevertheless, there is no unanimity in work that has been conducted regarding the influence of these variables on results. If a very significant set of papers (e.g. Wiblin and Wood, 1999; Andrés et al., 2001; Kim et al., 2001) say there is a positive relationship between size and results of value of the company. Others show there is a non-linear relationship, mentioning the size of the board exerts a positive effect on results up to a certain point, beyond which it has a neutral effect (Yermack, 1996) or even a negative one (Fernández et al. 1999).

The size of the company, particularly smaller ones, *Micro*, are shown to be significant conditioning *ROA* negatively. The simultaneous performance of the owner and manager by an individual or family is associated with these companies. They are characterized by a reduced propensity for risk and a very careful analysis of investments made, which may condition their performance. Shareholders obtaining benefits for their own advantages condition performance (Andres, 2008).

The company's age reflects public information on the *Reputation* and survival of the company. Regardless of what one would expect, the results show a negative relationship between this variable and performance. One possible reason relates to the fact that the age indicator is not the most appropriate one to measure this attribute. Whether the credit market assesses the company's reputation based solely on its age cannot be confirmed.

Corporate control may be exercised not only from the power conferred by ownership, but also through rights associated with external financing. The higher the debtor position, the greater the incentives for most banks to monitor corporate management. In turn, the control exercised by the bank over the company will be greater, the greater the difficulty felt by the company in obtaining alternative resources. This translates into a negative relationship that the variables: i) *Financial structure* establishes with *ROA* and *EVB* and ii) *Bank Debt* with *EVB*. This is revealing of the negotiating difficulties on the part of the company.

The results obtained validate hypothesis  $H_{11}$ , showing a negative impact of the number of banks on. Duration of the bank relationship also shows itself to be a conditioning element on performance which means not rejecting hypothesis  $H_{12}$ .

As for the company's government and in particular the ownership structure as a determinant of performance, as formulated in hypothesis  $H_{21}$ , the values obtain do not appear to be significant. With regard to the characteristics of the board of directors, hypothesis  $H_{22}$ , it is possible to say that they are determinant to corporate performance.

## 6. CONCLUSION

This work analyzes the influence bank relationships and corporate governance may have on corporate performance.

The results suggest that a greater number of credit institutions and a longer lasting relationship have a negative impact on corporate performance. Maintaining or establishing new relationships have a positive relationship on *ROA* and negative on *EVB*.

The characteristics of governance show that concentration of ownership conditions *EVB* positively and the size of the board has an equally positive effect on *ROA* and *EVB*.

Size as a determinant of corporate performance is relevant in micro-companies, particularly on operational profitability. The age of the company, financial structure and bank debt are also influential characteristics.

The low  $R^2$  obtained in the models lead us towards further research. This should go both in the direction of trying to specify non-linear relationships between variables, and on the mediating effects that some variables – considered control variables in the model – may perform. In this regard, note, for example, the opposite effect to what the theory suggests between the variable “age” and the performance indicators. This contrary effect may be due to the fact that the “age” variable exercises a mediating effect and not a direct effect on performance as was considered in our model. In later work these aspects will be explored, without forgetting the need to carry out sectorial studies.

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