
The impact of the supervisory board structure on bank performance

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Abstract

The primary research objective of this study is to identify the connections between some supervisory boards' characteristics from the Romanian banking system, on the one hand (namely the size, the character of independence and the gender diversity of their members) and, on the other hand, the banking financial performance, measured by the return on assets (ROA) and return on equity (ROE).

Thus, through this research, the authors aim to provide answers (justified by the results of an empirical research) to the question "Can the structure of the supervisory board affect the financial performance recorded in the Romanian banking system?" The research methodology used is mainly quantitative, based on a statistical deductive analysis, testing and identifying the type cause – effect connections, and in the same time with the assessment of the degree of their significance, representing the main objective of this research.

Keywords: *Supervisory board, financial performance, banking system, corporate governance.*

JEL Classification: *M40, G20, G30*

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Introduction

As a result of the global financial crisis, in the banking industry there was registered a significant increase in the degree of harmonization and regulation of processes and corporate governance systems. Given all these symptoms, this research aims to investigate whether the structure of the banks' supervisory boards (characterized by size, structure and gender diversity) can impact on their performance and, if so, what is their degree of influence.

The failure of the corporate governance processes can generate significant costs for the banks. The occurrence of such costs is due to the banks' role in the national economy, namely the role of financial intermediation, the coverage of the payments needs, of liquidity, of information, of insurance of the savings products (Fama, 1985). In addition, the banks are more intensively regulated, thereby taking measures to prevent the negative externalities caused by the "systemic risk" (Flannery, 1998) and to protect the interests of the banks' depositors.

It is also well known the important role of the banks in facilitating the good governance of the companies, both in their role as creditors and shareholders (Caprio and Levine, 2002). Therefore, banks can contribute not only to ensuring the good functioning of the companies from the non-financial sector, but also to promote an efficient policy of the financial resources allocation across the economy.

The supervisory board of the bank plays an important role in achieving effective corporate governance. Thus, Caprio and Levine (2002) consider that banking corporate governance is significantly determined by the structure of their supervisory boards. However, the authors consider that neither the shareholders nor the market partners can considerably affect the banking corporate governance.

The supervisory boards' importance in terms of banking corporate governance is also emphasized by the banking regulatory authorities. For example, in the consultative paper named "Strengthening corporate governance in the banking sector" (2006), the Basel Committee on Banking Supervision (BCBS) identifies the supervisory board as an essential part of a bank's regulatory reform. Moreover, the second pillar (supervisory review process) of Basel II identifies the

role of the supervisory board as an integral part of the risk management process (BCBS, 2005).

In this context, the aim of our research is very important; the literature on the relationship between the structure of the supervisory board and bank performance is not yet conclusive.

This is also the first study carried out for the Romanian banking system which includes the examination of the effect of the supervisory board's gender diversity on bank performance. The literature regarding the women's presence in the supervisory boards is not yet conclusive (e.g., Adams and Ferreira, 2009; Farrell and Hersch, 2005; Carter, Simkin and Simpson, 2003; Bunea and Țurlea, 2015).

1. Literature review

The negative relationship between the size of the supervisory board and the companies' performance is a common finding in the literature regarding the non-financial sector (Hermalin and Weisbach, 2003). The relationship is driven by the agility and the cohesion between the members of smaller supervisory boards and the costs that can be generated by the communication and coordination needs in the case of larger ones (Jensen and Meckling, 1976).

The members of the large supervisory boards could also experience challenges in expressing their opinions during the limited time available during the meetings (Lipton and Lorsch, 1992). Consequently, many studies show a negative correlation between the size of the supervisory boards and the financial performance of the company (e.g., Yermack, 1996; Eisenberg, Sundgren and Wells, 1998).

However, Coles, Daniel and Naveen (2008) argue that this relationship depends to a large extent on the economic environment in which the business operates. For example, the companies with enhanced counseling necessities (such as the companies with high debt and strongly affected by the total debt financing) may register the benefits from the functioning of large supervisory boards (Coles et al., 2008; Linck, Netter and Yang, 2008; Adams and Mehran, 2012).

Regarding the banking sector, the results of research in this area are mixed – some studies show a positive relationship, others a negative or no connection between the size of the supervisory board and the bank financial

performance (e.g., Andres and Vallelado, 2008; Adams and Mehran, 2012).

The large supervisory boards may reflect the complexity of the organizational structures of banks. The supervisory board size could also increase through the incorporation into their structure of members from the management teams of bank subsidiaries in order to facilitate the information flow (Adams and Mehran, 2012). However, if a banking company would register a poor organizational structure, then this would be reflected into an inefficiency of large supervisory board activities. Also, the independence of board members is very important for a bank, because they can help improve the quality of processes and operations in the relationship with business partners (Mishra and Nielsen, 2000; Cornett, McNutt and Tehranian, 2009).

The gender diversity in supervisory boards has been granted increasing attention in recent years within the scientific literature, as well as in public debates (e.g., Gul, Srinidhi and Ng, 2011; Adams and Ferreira, 2009; Farrell and Hersch 2005; Carter et al., 2003). The women representation on the boards has registered a constant (but slow) increase in recent years. This trend of increasing the share of female representatives on the boards is in accordance with the appreciation that women involved in management structures can bring added value to the company. The women managers are considered to be “hard working” and have better communication skills, which help them to improve the problem solving and the ability of decision-making activities of the supervisory boards (Robinson and Dechant, 1997).

According to Eagly and Carli (2003), women can also demonstrate the additional skills that they hold to access leadership positions, which mean that they are very competent and responsible as managers. In addition, women are considered to be more aware of their responsibilities as supervisory board members and are generally better prepared and fully documented when attending the board meetings (Eagly and Carli, 2003). This means that the women work harder in achieving their responsibilities and, consequently, could help improve the effectiveness of the supervisory board regarding the decision-making process and the information flow.

However, the conclusions of the previous research on the direct effect of the gender diversity on the company performance are inconclusive. According to Carter et al. (2003) in non-banking firms there is a positive relationship between gender diversity and business performance.

Also, Adams and Ferreira (2009) demonstrate that the presence of women in supervisory boards increases the frequency of the meetings. However, they do not search for a direct effect of gender diversity on company performance. In addition, Farrell and Hersch (2005) found that women tend to hold leadership positions in the best performing companies, although they reported insignificant abnormal profits around the day of announcement of a woman’s inclusion in the supervisory boards.

2. Study objective and research hypotheses

The primary research objective is to identify the possible connections between some characteristics of the supervisory boards from the Romanian banking system, on the one hand (namely the size, the character of independence and the gender diversity of their members) and, on the other hand, the bank financial performance, measured by the return on assets (ROA) and return on equity (ROE).

Thus, the authors aim to provide answers (justified by the results of an empirical research) to the question “Can the structure of the supervisory boards affect the financial performance recorded in the Romanian banking system?”

Based on the previous research in the scientific literature, the authors formulated the following hypotheses:

- H₁:** *There is a significant association between the structure of the supervisory boards and the return on assets (ROA) of the researched Romanian banking companies;*
- H₂:** *There is a significant association between the structure of the supervisory boards and the return on equity (ROE) of the researched Romanian banking companies.*

3. The research methodology

The research methodology used is mainly quantitative, based on a statistical deductive analysis, testing and identifying the type cause – effect connections, and also appreciating the degree of their significance. This represents the main objective of this research. In order to achieve it, the

authors used the SPSS software for Windows (the correlation tests and the regression analysis).

At the end of the first semester of 2015, there were 40 credit institutions into the Romanian banking system; out

of these, 38 were privately owned banks. 9 are the subsidiaries of foreign banks.

The **Table 1** (BNR, 2015) shows the evolution of the number of banks during the last 7 years.

Table 1. Structure of credit institutions between 2008 and 2015

	2008	2009	2010	2011	2012	2013	2014	Jun. 2015
Number of credit institutions	43	42	42	41	40	40	40	40
Number of credit institutions with mostly private capital	41	40	40	39	38	38	38	38
Number of banks with mostly foreign capital, of which:	37	35	35	34	34	34	34	34
Subsidiaries of foreign banks	10	10	9	8	8	9	9	9
The percentage in total assets of the banks with mostly private capital (%)	94.6	92.5	92.4	91.6	91.6	91.5	91.3	91.6
The percentage in total assets of the banks with mostly foreign capital (%)	88.2	85.3	85	83.0	89.8	90.0	89.9	90.2
The percentage of the first five banks in total assets (%)	54.3	52.4	52.7	54.6	54.7	54.4	54.2	55.3
Herfindahl-Hirschman Index (points)	926	857	871	878	852	821	797	812

Source: National Bank of Romania, 2015

Out of the total number of credit institutions in the Romanian banking system, the research sample comprises a number of 28 credit institutions. According to the information collected from their respective websites as of December 31st 2014, all these are Romanian legal entities. The 9 subsidiaries of foreign banks were not included, since they are not required to make financial disclosures (annual reports) in Romania (such information are disclosed by the group, in the parent company's country of origin). There were also excluded from the research a number of three credit institutions, which have not made publicly available the information on their official websites.

The research data were obtained exclusively from the official websites of the analyzed credit institutions, the National Bank of Romania (BNR) and from the 2014 annual financial reports and the reports on transparency and disclosure requirements developed under BNR – CNVM Regulation 25/30/2014 and supplemented by BNR – CNVM Regulations no. 21/26/2010 and no. 23/15/2011 and BNR Regulation no. 25/10.12.2010.

The banks within the Romanian banking system are administered either through a unitary administration system, the supervision and management being exercised by the board of directors or through a two-tier system of administration, in which the executive management falls to the executive committee or directorate which operate under the supervision of a supervisory board, according to the statute/constitutive act of each credit institution and the banking legislation in force.

The supervisory board sets the strategies and the development guidelines and supervises their implementation, while the executive committee or the directorate provide the operative management and prevent the operational and the compliance risk.

In order to achieve the main research objective there were defined two sets of variables, independent and dependent, which underlie the study and help to identify the potential correlations.

The details related with the independent variables in the study, their definition and measurement techniques are presented in **Table 2**.

Tabel 2. The independent variables

Independent variable	Definition	Symbol	Measurement
Size of supervisory board	Number of members in supervisory board	AC_Size	Number of members
Independence of members	Share of independent members in supervisory board	AC_Ind	Number of independent members in total membership
Gender diversity of members	Share of women members in supervisory board	AC_Divg	Number of women members in total membership

Source: Authors' conception.

The dependent variables in the study, as a synthesis of the financial banking performance, are the *ROA - Return on Assets* and the *ROE - Return on Equity* registered by the Romanian credit institutions

included in the sample.

The details related with the dependent variables are presented in the **Table 3**.

Tabel 3. The dependent variables

Dependent variable	Symbol	Measurement
Return on Assets	ROA	Net result/Total Bank Assets
Return on Equity	ROE	Net result/Bank Equity

Source: Authors' conception.

In order to test the possible correlations between the independent variables and the dependent variable, there was calculated the Pearson coefficient, which is often used to appreciate the level of linear dependence intensity that occurs between two variables. Thus, when the Pearson correlation coefficient has a value of +1 it reflects a perfect direct relationship between the two variables; when it has a value of -1, the Pearson correlation coefficient indicates a perfect inverse relationship. This analysis of possible correlations between the variables provides indications of the meaning and significance of potential interdependencies of these variables, allowing us to accept or reject the research hypotheses.

4. Data processing and analysis

Based on the regression analysis (we used the multiple regression model in SPSS, the Backward method) for the purpose of accepting or rejecting the hypotheses made, the potential influence of

each independent variable has been processed and analyzed.

The results are detailed in the **Tables 4a** and **4b** "The partial correlation matrix". In these tables, we present the correlation coefficients (Pearson Correlation), the significance (Sig.) for each correlation coefficient and the number of cases considered in this study (N).

In order to test the H_1 hypothesis: *There is a significant association between the structure of the supervisory boards and the return on assets (ROA)* of the researched Romanian banking companies, the authors analysed the impact of each independent variable on the bank's profitability.

Thus, the research results regarding the impact of the independent variables on ROA are shown on the

Table 4a "The partial correlation matrix".

Accordingly, it can be noticed that the diagonal coefficient equals 1, because each variable is perfectly correlated with itself.

Table 4a. The correlation matrix

		ROA	Size	Gender diversity	Independence
Pearson Correlation	ROA	1.000	0.257	0.033	0.545
	Size	0.257	1.000	0.350	0.057
	Gender diversity	0.033	0.350	1.000	0.227
	Independence	0.545	0.057	0.227	1.000
Sig. (1-tailed)	ROA		0.093	0.434	0.036
	Size	0.093		0.034	0.386
	Gender diversity	0.434	0.034		0.123
	Independence	0.036	0.386	0.123	
N	ROA	28	28	28	28
	Size	28	28	28	28
	Gender diversity	28	28	28	28
	Independence	28	28	28	28

Source: Conception of the authors using SPSS.

It is noted that the most significant relationship is between the banks return on assets (ROA) and the independence of the supervisory board members. There is a positive significant relation between the dependent variable ROA and the independent variable *Independence of members*. The Pearson coefficient determined is 0.545 and Sig. less than 0.05 (0.036).

Thus, we can accept the *H1 hypothesis: There is a significant association between the structure of the supervisory boards (Independence of members) and the*

return on assets (ROA) of the researched Romanian banking companies.

In order to test the *H2 hypothesis: There is a significant association between the structure of the supervisory boards and the return on equity (ROE) of the researched Romanian banking companies*, we analysed the impact of each independent variable on the *Return on equity (ROE)* of the banks included in the sample.

In the **Table 4b** "The partial correlation matrix", the research results related to the influence of the independent variables on the ROE are presented.

Table 4b. The correlation matrix

		ROE	Size	Gender diversity	Independence
Pearson Correlation	ROE	1.000	0.171	0.132	0.282
	Size	0.171	1.000	0.350	0.057
	Gender diversity	0.132	0.350	1.000	0.227
	Independence	0.382	0.057	0.227	1.000
Sig. (1-tailed)	ROE		0.193	0.252	0.073
	Size	0.193		0.034	0.386
	Gender diversity	0.252	0.034		0.123
	Independence	0.073	0.386	0.123	
N	ROE	28	28	28	28
	Size	28	28	28	28
	Gender diversity	28	28	28	28
	Independence	28	28	28	28

Source: Conception of the authors using SPSS.

It is noted that there is no significant association between the dependent variable *ROE* and the independent variables, because the Pearson correlation coefficient is between 0.132 and 0.382, and the recorded Sig. is greater than 0.05 (0.073, 0.252 and 0.193).

Finally, the H2 tested hypothesis is rejected, based on the research results. We consider that there is no significant association between the *structure of the supervisory board* and the banking *return on equity (ROE)*.

Conclusions

The primary research objective was to identify potential interdependencies between the structure of the supervisory boards in the Romanian banking system, on the one hand and, on the other hand, the banks' financial performance, measured by the *Return on assets (ROA)* and *Return on equity (ROE)*, for the banks included in the research sample.

Testing the potential influences of the structure of the supervisory boards on company value was performed, over time, in a large number of studies. In contrast to that situation, the current research covers a different approach to this issue in a specific field of activity, namely the banking sector. The segment was not sufficiently explored so far from this perspective. Also, the hypotheses and the relationship between independent and dependent variables included in the study offer a touch of originality to the research and, by default, bring added value to the paper.

At the same time, this research has some limitations, mainly caused by the size of the sample and by the fact that the analysis was conducted using the information in only one financial year (2014). Despite these limitations, the authors consider that this study can represent a useful source of reflection and information for the practitioners from the banking sector, and it can be a challenge for the future research in this field.

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