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Effects of Board Social Capital on Corporate Performance: Evidence from Russia

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Abstract Increasingly, researchers, studying board of directors' characteristics, are coming to understanding that connections and relationships that directors establish with internal and external stakeholders have a certain value for the company. Board's connections and relationships are considered in terms of concept of social capital of the board of directors. This study is focused on such an element of board social capital, as multiple directorship positions. Based on the existing studies in this field, research hypothesis were formulated and empirical study was conducted in order to set the relationship between multiple directorship positions and performance of the companies.

Keywords: board of directors, social capital of board of directors, multiple directorship positions, performance.

1. Introduction

The range of works devoted to the study of board of directors is quite extensive. The authors try to understand the role of the board of directors in the company's strategy, and, in particular, on the relationship of the structure and composition of the board of directors with financial performance.

The wide range of studies focus on the questions of board independency, proportion of executive and non-executive directors, gender diversity of the board and others. The answers to these questions are very important. However, this sort of studies overlook the quality side of the issue concerning professionalism of the board members, depth of their knowledge and expertise and the connections, they establish with important for the company stakeholders.

This study focus on the analysis of the connections and relationships formed by the board members and on the potential resources that can be extracted from these connections. All these could be united into the concept of social capital. This article aimed at studying the role of social capital for a company and setting the relationship between board of directors' social capital and companies' financial performance.

2. Social capital of Board of directors

Social capital could be defined as the sum of actual and potential resources available and obtained from a network of relationships that an individual or social group obtains (Nahapiet and Ghoshal, 1998). Thus, social capital includes both a network of relationships and assets that could be mobilized through this network.

The central assumption underlying the theory of social capital is that relationship networks have a value for a company. According to (Hillman and Dalziel, 2003), the social capital of the board of directors is defined as the aggregate of the connections of the members of the board of directors with other firms and the external environment. Based on the definition presented in (Kim and Cannela, 2008) and in (Barroso-Castro et al., 2016), the social capital of the board of directors is considered as an intangible asset that includes both connections and potential resources, which can be obtained from these links.

In (Barroso-Castro et al., 2016), the authors adhere to the approach according to which the social capital of the board of directors is usually divided into two components, namely, internal social capital and external social capital. In this regard, the definition of social capital will vary depending on where the emphasis is placed on the relations of board members with the outside world (external social capital) or interpersonal relationships between representatives within the board of directors (internal social capital). The authors of this paper ask how the relationship between the internal and external social capital of the board of directors affects the financial performance of the company. They suggest that the ability of the board of directors to effectively provide access to the information necessary for making the right decisions through communications of board members depends on the degree of internal cohesion of its members among themselves.

The application of this concept was initiated by (Adler and Kwon, 2002) and (Kim and Cannela, 2008). The authors of (Kim and Cannela, 2008) distinguish between external social capital or the "bridging" form of social capital and internal social capital, in their terminology "bonding" form of social capital. The "bridging" component is responsible for communication with the outside world, while the "bonding" component focuses on connections between people in a team (in particular, on the board of directors).

A lot of the researches on the social capital of the board of directors focused on the study and analysis of external relations of the board of directors, while much less attention was paid to the role of the internal social capital of the board of directors.

According to the authors of the work (BarrosoCastro et al., 2016), the internal social capital of the board is very important for the effective functioning of the company, since a friendly and cohesive board of directors performs its functions more effectively. The work also notes the importance of external social capital of the board of directors. Board members are often nominated because of their connections, since they contribute to a more efficient implementation of one of the main functions of the board of directors related to providing access to resources.

Boards of directors whose members have a large number of connections through directorship on the board of directors of other companies, through holding managerial positions in other companies, in other words, have a high level of external social capital, have faster access to critical resources and more relevant information, which positively reflects on the financial performance of the company (Carpenter and Westphal, 2001; Tian et al., 2011). The authors (Kim and Cannela, 2008) argue that, in the case of turbulent environmental conditions, members of the board of directors should pursue the goal of creating as many external relations as possible in order to make the environment more favorable and predictable.

In (Barroso-Castro et al., 2016), the authors identify several positive points brought into the company through the availability of external capital of the board of directors. The first advantage is to provide access to the necessary information and the ways in which this information could be obtained. For example, companies can reduce the level of uncertainty associated with the implementation of a new strategy, through the information they receive from the board of directors' connections with companies that already have experience in implementing this strategy.

Directors can form connections in various ways, as there are several sources of external social capital, such as connections of external directors with companies in which they work full-time; relations of members of the board of directors with companies in which they also sit on the board of directors, the presence of informal relations expressed in the form of personal relations of directors, as well as cross-director positions or interlocking directorates.

3. Multiple directorship positions

The elements of social capital of the board of directors (BD), in general, include connections with organizations, political parties, government, affiliated persons; multiple directorship positions; management positions in companies; cross-director positions (interlocking directorates) and co-working experience. This study focuses on one of the elements of social capital (SC) that is multiple directorship positions.

Generally, multiple directorship positions means the situation when board member simultaneously held position on BD of at least one more company except focal company (Berezinets et al., 2016). The concept of multiple directorship positions or, in other words, directors' "busyness" is rather ambiguous. Firstly, question arises about how to determine whether a director is "busy" or not. Secondly, the opinions on the role that multiple directorship positions play in ensuring the performance of a company are different. Thirdly, it is necessary to determine whether there are peculiarities in relationship between the multiple directorship positions and performance, depending on the country affiliation, culture and mentality characteristics.

It is worth noting that in literature devoted to the question of BD SC there is a terminology confusion expressed in the ambiguous distinction between terms "multiple directorship positions" and "directors' busyness". Some researchers called the situation of simultaneous occupation of positions on BD of several companies by board members as multiple directorship positions. Other called it busyness. Moreover, there are studies in which these two terms are used as synonyms. This study uses the approach, according to which multiple directorship positions acquire negative connotation and turn into a form of busyness when such simultaneous board position occupation negatively affect performance. Further, we will back to this question.

There are different approaches to determine a director as a busy. The work (Core et al., 1999) expresses the opinion that a director could be considered as busy if he or she occupies three or more director positions on the boards of directors of other companies. This criterion for assigning directors to the category of busy is quite common in studies devoted to the study of this phenomena (Fich and Shivdasani, 2006; Ferris et al., 2003; Anderes et al., 2013; Lee and Lee, 2014). It is also worth noting that the board of directors is considered as busy if the majority of its non-executive (external) directors are busy. In some works, one can meet the criterion

according to which at least 50% of external directors should be busy (Fich and Shivdasani, 2006; Anderes et al., 2013 and others).

The next question that arises when studying the multiple directorship positions is related to the fact that the multiple directorship positions of executive and non-executive directors could be analyzed separately. The authors of most of the works agree that it is necessary to consider only a multiple directorship positions of non-executive directors. According to (Fich and Shivdasani, 2006) non-executive directors are those who bring reputational capital to the company, so considering the multiple directorship positions of non-executive directors is more acceptable for the analysis. The authors (Lee and Lee, 2014) suggest that non-executive directors play a key role in the implementation of the monitoring and control function; therefore, in the study of multiple directorship positions, it is necessary to consider only the positions of non-executive directors. However, there is an opposite opinion. The study (Liu and Paul, 2015) presents the point of view that executive directors play an important role, performing functions as members of the Board of directors, and, what is important, are employees of the company. The authors argue that the executive directors, being the holders of human capital, expressed in the possession of specific knowledge about the company, which they share with non-executive directors in order to ensure the effective functioning of the board of directors, have certain impact on the performance of the company both through the quality of their decisions and through the information they transmit to non-executive directors. Thus, the authors believe that any study of multiple directorship positions and its relationship to performance, excluding the role of executive directors, will be incomplete and irrelevant.

4. Relationship between multiple directorship positions and performance

A number of studies have found that there is an inverse relationship between the multiple directorships and performance of a company. At the same time, the results of some studies indicate that a member of the board of directors, simultaneously occupying several positions on the board of directors of other companies, better implements the function of maintaining the company's reputation and consulting management. According to (Ferris et al., 2003), the appointment of a director combining positions in different boards is good news for shareholders, implying that the experience and reputation of such directors is beneficial for the company.

From the point of view of the "reputation" hypothesis, the multiple directorships reflect the director's reputation and demonstrates his competence. The authors of (Fama and Jensen, 1983) argue that the market serves as an important incentive for external directors, encouraging them to hold several posts as a member of the board of directors, thereby strengthening their reputation.

The logic of this hypothesis is as follows: if a director simultaneously occupies positions on the boards of directors of different companies, he is a sought-after specialist, the director's relevance arises from the effectiveness of the implementation of the obligations imposed on him, in particular, the monitoring and control function, thus inclusion in the board of directors of a director holding multiple positions will have a positive impact on the performance of the board of directors, the quality of its decisions and the company's value in the eyes of the market as a whole.

There are a large number of works confirming this assumption. For example, the authors (Field et al., 2013) found that boards of directors, which representatives holding multiple positions, are a common practice among companies performing an IPO, explaining this situation by the fact that such directors are good consultants and contribute to increasing the value of a company. In (Ferris et al., 2003), it was proved that companies that for the first time appoint a director with multiple positions to the board of directors receive high abnormal return. These studies show that nomination of directors with multiple directorship positions is in the interests of shareholders. However, this result is not indisputable, since whether the busyness of the board will positively associate with the company's performance depends on a large number of features of both the company and its external environment. For example, in (Lee, Lee, 2014) it is assumed that the benefits and costs of nomination directors holding multiple positions are due to the characteristics of the company. It was found that a direct relationship between company value and board busyness could be found in companies that need consulting and in companies with a high need for external financing. Moreover, the authors believe that these positive effects, brought by the directors with multiple positions, are more spread in developed countries, in which there is a strong system of protecting the rights of shareholders.

The second hypothesis by which the role of the multiple directorships in the creation of company's value is explained is the "busyness" hypothesis. Adherents of the "busyness" hypothesis tend to believe that a busy director who simultaneously sits on the boards of directors of several companies becomes overloaded with such extensive responsibilities in various boards and is not able to effectively perform his functions, which negatively affects the performance of the company.

Such directors start to evade their obligations, for example, they are less often participate in important company's committees, such as the audit committee and the remuneration committee (Ferris et al., 2003). Firms with busy boards of directors, in which the majority of external directors occupy three or more posts as board members in other companies, are associated with weak corporate governance. These companies demonstrate lower market performance indicators, and low sensitivity of the change of CEO relative to the results of his work. It is worth noting that in some cases, the departure of busy directors generates a positive abnormal return (Fich and Shivdasani, 2006).

The author of (Beasley, 1996) argues that the likelihood of manipulation of accounting reports is positively associated with the busyness of the board of directors. In study (Core et al., 1999) it is suggested that busy directors set excessively high levels of remuneration for CEOs, which is not always correlated with the quality of their work, which in turn leads to poor performance.

5. Hypothesis statement

In a number of studies, it was found that there is a direct relationship between the number of director positions on BD of other companies and Tobin's Q (Elyasiani and Zhang, 2015; Cashman et al., 2012). This relationship can be explained from the perspective of the resource dependence theory (Pfeffer and Salanchik, 1978), according to which the role of the board of directors is to provide access to important resources for the company. Setting connections through holding positions on several BD, board members act as conductors of critical resources for the company. The presence of directors, occupying several positions on BD of other companies,

allows gaining access to the necessary resources, as well as, to the information that allows making effective decisions aimed at strengthening financial performance. In (Elyasiani and Zhang, 2015) the authors suggest that the members of the BD holding several positions carry out the function of monitoring and consulting management better, as through occupying positions on BD they accumulate useful knowledge, experience and information, which has a positive impact on the implementation of these functions, which in turn has a positive impact on the performance of the company, measured by the Tobin's Q. Thus, based on the analysis of studies on the relationship between multiple directorship positions and Tobin's Q the following hypothesis was formulated:

Hypothesis 1: There is a direct relationship between the number of director positions on BD of other companies occupied by a member of the BD at the current moment in time and the Tobin's Q.

Further, the studies on the relationship between multiple directorship positions and operational performance, namely, return on assets, were analyzed. A number of researchers came to the conclusion that there is an inverse relationship between the number of director positions on the BD of other companies held by members of the board and operational performance (Liu et al., 2015; Fich and Shivdasani, 2006; Core et al., 1999). This result is consistent with the assumptions of the "busyness" hypothesis. In (Liu et al., 2015) the inverse relationship between the return on assets and the average number of director positions held by the BD member on BD of other companies was established. The authors argue that the negative effects arising from the combination of positions of a board member in several companies exceed the benefits of such multiple directorship. Based on the analysis of the works, the following hypothesis was formulated:

Hypothesis 2: There is an inverse relationship between the number of director positions on BD of other companies occupied by a member of the BD at the current moment in time and return on assets.

This study offers an approach according to which multiple directorship positions could be considered from two perspective. First perspective is to study the positions on BD that directors held at the current moment. Second perspective is to study the positions on BD that directors held in the past.

In this study, it is assumed that the connections that a member of the BD had in the past, through membership on the BD of other companies, could be beneficial for company at the current moment, as they provide access to the necessary resources, in particular, to information. This position is consistent with the assumptions of the resource dependency concept. Moreover, past multiple directorship positions could be considered as an indicator of a directors' experience as board member, on the one hand, and industry experience, on the other. Based on this logic, the following hypotheses were stated:

Hypothesis 3: There is a direct relationship between the number of director positions on BD of other companies occupied by a member of the BD over the past 5 years before current moment and return on assets.

Hypothesis 4: There is a direct relationship between the number of director positions on BD of other companies occupied by a member of the BD over the past 5 years before current moment and the Tobin's Q.

6. Methodology and descriptive statistics

An analysis of the relationship between social capital of board of directors and company's financial performance was conducted by using following model:

$$Performance_{i,t+1} = \beta_0 + \beta_1 MULTI_{i,t} + \beta_2 GOV_{i,t} + \beta_3 FIN_{i,t+1} + u_{i,t}, \quad (1)$$

$$i = 1, \ldots, N; t = 2010, \ldots, 2014.$$

As dependent variables characterizing company's performance ($Performance_{i,t+1}$), two indicators were used, reflecting both operational and market performance. These indicators are return on assets and Tobin's Q, respectively.

The regression model (1) includes several vectors of variables. The vector $GOV_{i,t}$ dimension of (k × 1) comprises variables reflecting BD's structure. The vector $FIN_{i,t}$ dimension of (m × 1) comprises variables of baseline model that, according to a large number of studies, are determinants of company's financial position. The vector $MULTI_{i,t}$dimension of (n × 1) includes variables reflecting BD's social capital. It should be noted that BD's social capital was analyzed in general for the company and separately for different categories of directors, and namely, executive, non-executive and independent. Moreover, social capital of directors, who are members of BD of subsidiary companies in relation to the focal one, was analyzed.

All variables included in the model have an *it* index that indicates that this information is measured for each company i at time t. β_1, β_2, β_3 are vectors of unknown parameters dimension (1 × n), (1 × k) and (1 × m), respectively.

The description of variables used in analysis is presented in table 1.

The companies investigated in the study were Russian public companies traded on the RTS/MICEX and then, after merger, on MOEX between 2010 and 2014.

The sample is unbalanced. The number of companies included in the sample was different for each year, as companies' stocks were traded at different periods. As a result, the number of observations for 5 years was 1206. It should be noted that some companies were excluded from the sample, due to the lack of data necessary for the study; financial companies also were not considered.

Figure 1 presents the industry distribution of the companies in the sample. The largest share in the sample was made up of energy, metallurgical, engineering and telecommunications companies. The sample is dominated by companies belonging to the energy industry. This distribution corresponds to the industry structure of the Russian economy with a predominance of companies from the previously mentioned sectors. In 2010, energy companies accounted for 44% of the sample. However, over time, this value decreased and amounted to 39% in 2014. Companies from the engineering, telecommunications and metallurgy sectors accounted for 9%, 5% and 11%, respectively, in 2010. This ratio did not undergo significant changes in the analyzed period. The group "other" included companies from the food, chemical, pharmaceutical industries, trade, construction and others.

Table 2 presents descriptive statistics of the variables used in the model.

The average ROA of the company included in the sample was 4.4%. Table 3 shows time and industry dynamic of ROA. A significant reduction in the level of profitability in 2013-2014 can be explained by the consequences of sanctions and the stagnation of Russian economy in general.

Figure 2 shows the distribution of the size of board of directors across the sample.

Table 1. Description of the variables

Variable	**Description**
1	**2**
	Dependent variables
TOBIN's $Q_{i,t+1}$	Tobin's Q is a market performance indicator, calculated as market value of equity plus book value of debt divided by total assets. A simplified formula presented in [Chung, Pruitt, 1994] was used. $Tobin\ Q_{i,t+1} = \frac{MVE_{i,t+1}+DEBT_{i,t+1}}{TA_{i,t+1}}$, Where $MVE_{i,t+1}$ — market value of equity of Company i at the moment in time (t+1); $DEBT_{i,t+1}$ — value of long-term and short-term liabilities minus current assets of Company i at the moment in time (t+1); $TA_{i,t+1}$ — balance value of total assets of Company i at the moment in time (t+1).
$ROA_{i,t+1}$	Return on Assets is an accounting performance indicator, calculated as $ROA_{i,t+1} = \frac{OI_{i,t+1}}{\overline{TA}_{i,t+1}}$, (11) where $OI_{i,t+1}$ — operational profit of Company i at the moment in time (t+1); $\overline{TA}_{i,t+1}$— average balance value of total assets of Company i at the moment in time (t+1)
	Independent variables
	Ellements of the vector $\mathbf{MULTI}_{i,t}$
$MULTI\_NOW_{i,t}$	The average number of positions held by the members of BD of the company i as BD members of other companies at the moment in time t
$MULTI\_LAST_{i,t}$	The average number of positions held by the members of BD of the company i as BD members of other companies for a period of previous 5 years at the moment in time t
$EXEC\_MULTI\_NOW_{i,t}$	The average number of positions held by the executive members of BD of the company i as BD members of other companies at the moment in time t
$EXEC\_MULTI\_LAST_{i,t}$	The average number of positions held by the executive members of BD of the company i as BD members of other companies for a period of previous 5 years before the moment in time t
$NONEXEC\_MULTI\_NOW_{i,t}$	The average number of positions held by the nonexecutive members of BD of the company i as BD members of other companies at the moment in time t
$NONEXEC\_MULTI\_LAST_{i,t}$	The average number of positions held by the nonexecutive members of BD of the company i as BD members of other companies for a period of previous 5 years before the moment in time t
$INDEP\_MULTI\_NOW_{i,t}$	The average number of positions held by the independent members of BD of the company i as BD members of other companies at the moment in time t

INDEP_MULTI_LAST$_{i,t}$	The average number of positions held by the independent members of BD of the company i as BD members of other companies for a period of previous 5 years before the moment in time t
SUB_MULTI_NOW$_{i,t}$	The share of directors held positions as BD members of subsidiary companies in relation to the focal company I at the moment in time t
SUB_ MULTI_LAST$_{i,t}$	The share of directors held positions as BD members of subsidiary companies in relation to the focal company I for a period of previous 5 years before the moment in time t
Ellements of the vector FIN$_{i,t}$	
SIZE$_{i,t+1}$	Size of the company calculated as natural logarithm of the company's revenue
LEV$_{i,t+1}$	Leverage of the company calculated as debt to equity ratio
Ellements of the vector GOV$_{i,t}$	
BDSIZE$_{i,t}$	Size of the board of directors equals to the number of directors on the board over the year t

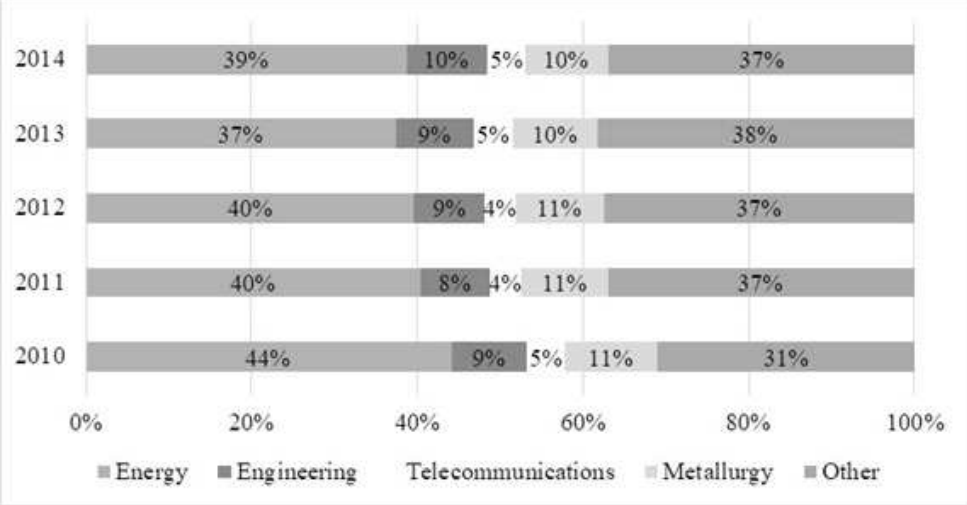

Fig. 1. Industry distribution of the companies.

The average size of the Board of companies in the sample was 8 directors. The minimum size was 5 people, the maximum — 15. This result is slightly lower than the result obtained in a study conducted by Spencer Stuart in 2014, conducted on a sample of 41 largest capitalization companies from the list of "Expert400". According to the Spencer Stuart 2014 study, the average size of the Board was 10 people. Moreover, Spencer Stuart study shows that the average size of the Board of Directors in France is 14, in Italy — 12.2, in the US — 10.8 and in the Netherlands — 9.5.

Figure 3 presents the time and industry distribution of board size across the sample. It was found that energy companies are characterized by the biggest size of

Table 2. Descriptive statistics of the variables

Variable	Mean	Standard deviation	Min	Max
$TOBIN_{i,t+1}$	1,1705	1,2808	0	18,1764
$ROA_{i,t+1}$	0,0441	0,1386	-0,7651	1,3042
$BDSIZE_{i,t}$	8,4735	2,2757	5	15
$MULTI\_NOW_{i,t}$	1,9852	2,1904	0	14,7143
$MULTI\_LAST_{i,t}$	1,1277	1,8275	0	10,6364
$EXEC\_MULTI\_NOW_{i,t}$	1,0832	2,4669	0	28
$EXEC\_MULTI\_LAST_{i,t}$	0,7585	2,2067	0	23
$NONEXEC\_MULTI\_NOW_{i,t}$	2,0730	2,2976	0	14,7143
$NONEXEC\_MULTI\_LAST_{i,t}$	1,1431	1,9329	0	13,4286
$INDEP\_MULTI\_NOW_{i,t}$	1,0910	2,3486	0	24
$INDEP\_MULTI\_LAST_{i,t}$	0,5791	2,2256	0	36
$SUB\_MULTI\_NOW_{i,t}$	0,0805	0,1634	0	1
$SUB\_MULTI\_LAST_{i,t}$	0,0467	0,1202	0	0,8889

Table 3. Dynamic of return on assets (ROA)

	2010	2011	2012	2013	2014
ROA, %	5,5	5,5	4,1	1,9	2,5

	Energy	Metallurgy	Engineering	Telecommunications
ROA, %	2,9	2,1	1,4	9,4

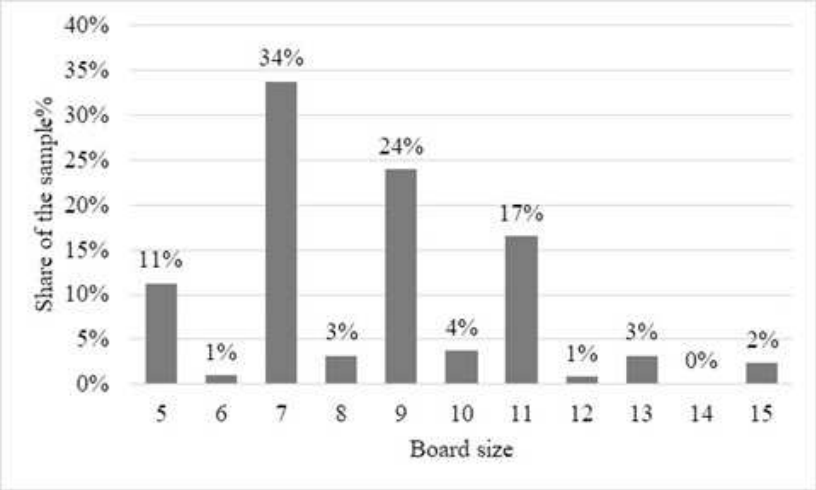

Fig. 2. Diagram of board size distribution.

the BD in comparison with other industries. The average size of the BD of energy companies was 9. The smallest size of BD relates to metallurgical companies.

The study of board of directors would not be complete without analysis of its quality and professional characteristics of its members. Among these characteristics

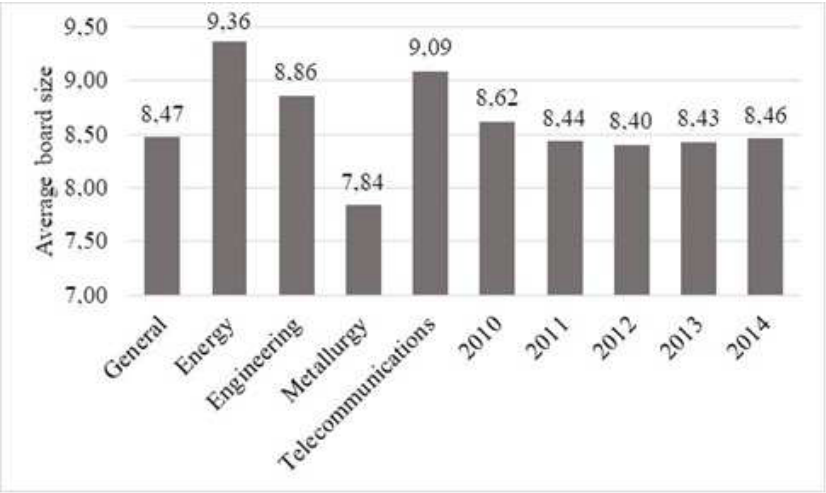

Fig. 3. Diagram of the dynamic of changing board size across industries and time.

are level of education, industry-specific education and other. As the analysis showed, in 19% of cases, the members of the BD have an education corresponding to the industry specifics of the company. It is worth mentioning that the biggest share of directors with industry education relates to metallurgical companies. The average share of directors with specific education in metallurgical companies is 32.8%. In general, these people have received engineering education and graduated from such faculties as metallurgy of ferrous and nonferrous metals, pipe production, processing of metals and alloys by pressure and others. Moreover, the boards of directors of metallurgical companies have the largest share of directors with an academic degree in comparison with companies from other industries. Most often, members of BD of metallurgical companies have a degree of Candidate of Technical Sciences. The reason to that could be the complexity of the production process and the need for specific knowledge in this industry.

Considering the dynamics of such indicators as the share of BD members with relevant industry education, the share of BD members with an EMBA degree and the share of BD members who have been awarded an academic degree, I would like to note the following results. First, we can observe a negative trend, expressed in a gradual reduction of the share of members of the BD with industry education. In the period 2010-2014 the share of directors with industry education decreased by 4%. Secondly, the share of BD members with EMBA degree increased during the same period, which is associated with the gradual penetration and growing popularity of this educational program in Russian business.

Let consider in more detail the descriptive statistics of social capital of BD. On average, 46% of the members of BD of Russian companies from the sample are members of BD of at least one company at the same time in addition to the focal company. At the same time, it was found that the multiple directorship is most common practice in telecommunication companies, in which an average of 72% of the members of the BD are representatives of the BD of at least one other company. In 20% of companies, members of the BD sit only in one company. Over time, the

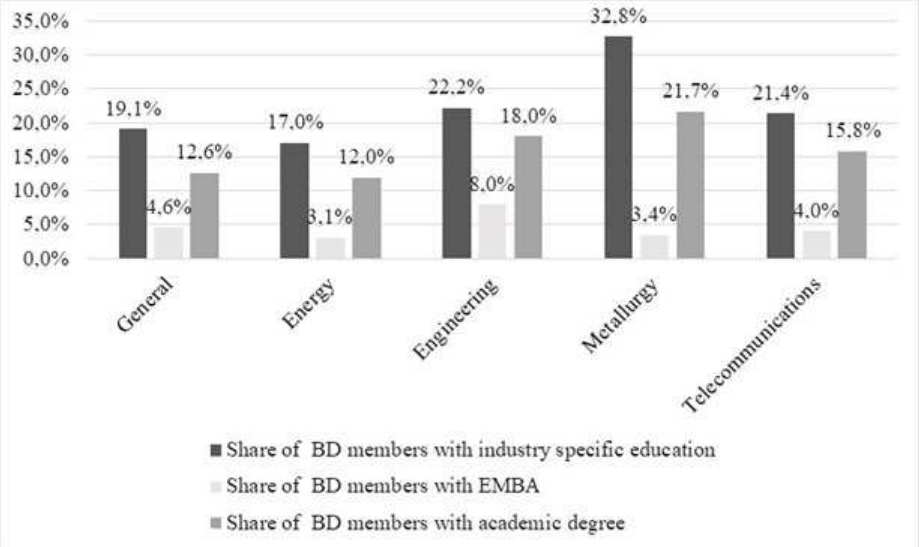

Fig. 4. Diagram of the dynamic of changing the share of board members having specific educational characteristics across industries.

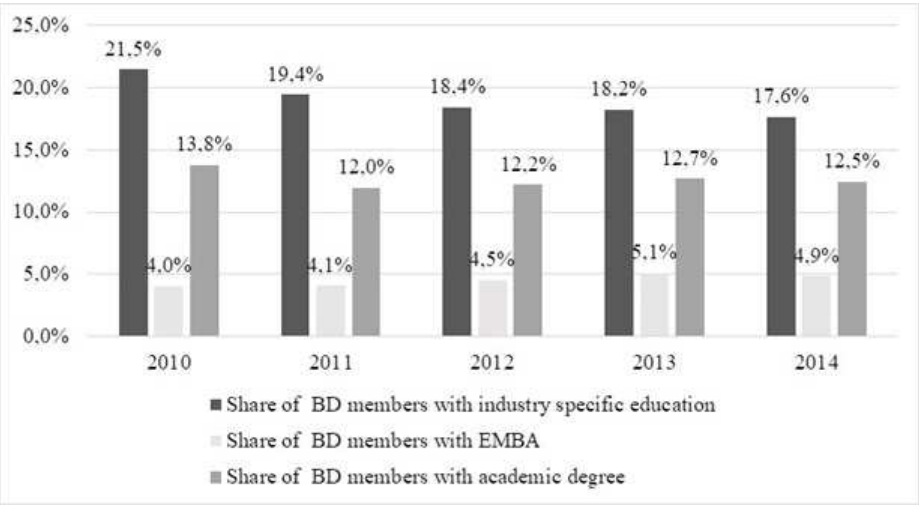

Fig. 5. Diagram of the dynamic of changing the share of board members having specific educational characteristics across time.

share of directors holding multiple positions has not changed significantly and stood at 45%, with the exception of 2010.

On average, the members of the BD have two additional directorship positions on BD of other companies. This result is not significantly different from the European countries. According to Spencer Stuart 2015 study, in Belgium in 2015, the average BD member held 1.9 additional positions, in Denmark – 2.0, in France – 2.1, in Switzerland – 2.4.

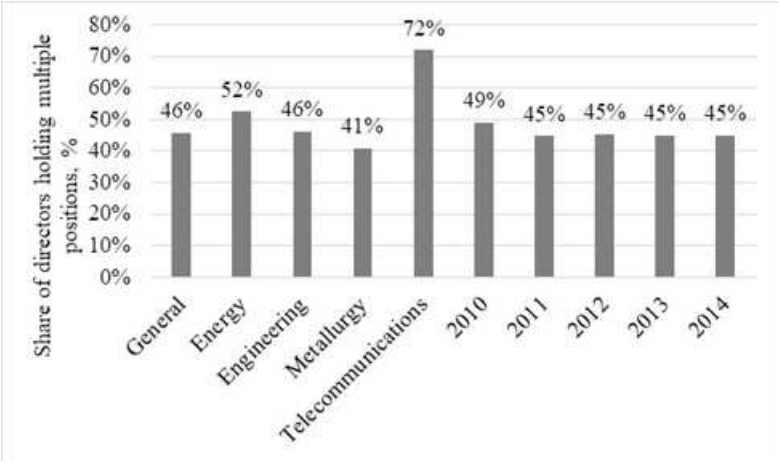

Fig. 6. Diagram of the dynamic of changing the share of directors holding multiple directorship positions across industries and time.

The average number of positions held by the executive member of the BD was 1.1. For non-executive directors the number of positions was higher. It was 2.07 additional positions. The assumption that the average number of positions on the BD of other companies held by non-executive directors is greater than non-executive ones was tested and accepted. This result confirms the opinion that non-executive directors are the conductors of the resources necessary for the company and, in turn, are more inclined to form external relations through membership in the BD of other companies (Kor and Sundaramurthy, 2008; Pombo and Gutierrez, 2011).

It was found in analysis that in Russian companies it is a common practice when a member of the BD simultaneously held a position on the BD of subsidiary companies. On average, in 30% of companies members of the BD at the same time sit on BD of subsidiaries. For example, in the investment company JSFC Sistema in 2010, 70% of the BD members were at the same time members of the BD of its subsidiaries, such as Bashneft, Binnopharm, Sitroniks, MTS and others. Member of the BD of AFK Sistema Alexey Goncharuk as of 2013 was a member of the BD of 4 subsidiary companies. Mikhail Shamolin in 2011 was a member of 11 boards, 9 of which were BD of subsidiaries of AFK Sistema. The analysis of descriptive statistics shows that the practice of holding positions on BD of subsidiaries is mostly presented in the telecommunications industry. The average share of BD members sitting on the BD of subsidiaries was 16%.

7. Results of the Regression analysis

At the first stage, it was analyzed the relationship between the multiple directorship positions and ROA. The baseline model including determinants of financial performance of the company was built. Then, different modifications of indicators characterizing multiple directorships were included in the model.

The results of the regression analysis using the ROA as a dependent variable are presented in table 4.

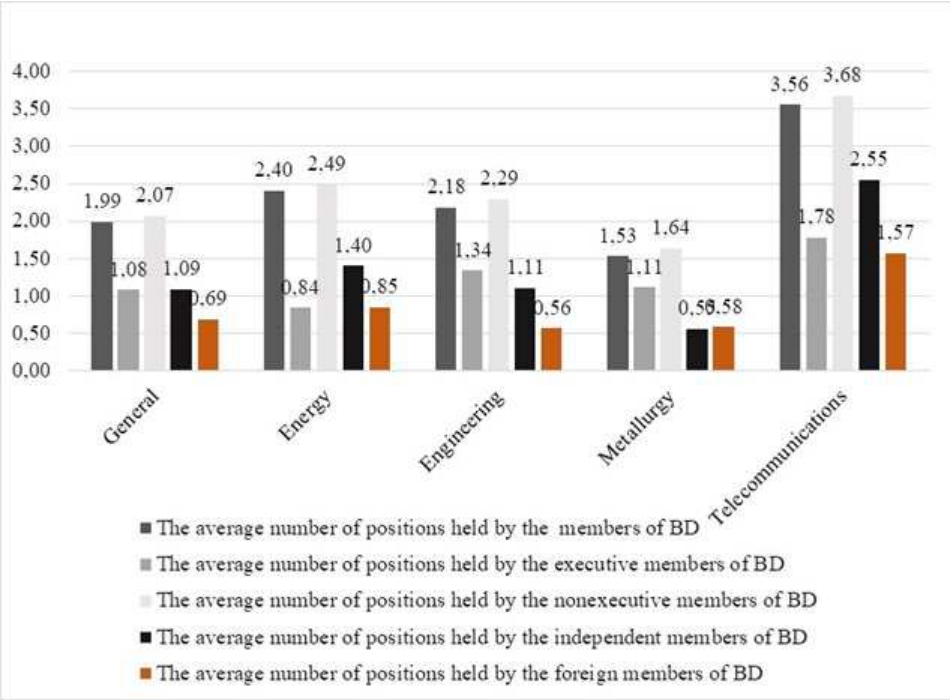

Fig. 7. Diagram of the dynamic of changing the average number of positions held by different categories of BD members across industries.

All models that used variables reflecting the multiple directorship positions are statistically significant. The variables of baseline model are significant at 1% significance level. In the model (2) and (4), in which the multiple directorship positions were measured as the average number of positions held by the members of the BD, the variable reflecting the multiple directorship positions is significant and the sign is negative. Consequently, it can be concluded that there is an inverse relationship between the average number of positions on the BD and ROA. With the increase of the average number of positions by 1, the return on assets is reduced by 0.41%.

In column (7) a model, by which the relationship between ROA and the multiple directorship positions held by executive and non-executive directors was analyzed, is presented. In a result, an inverse relationship was found between the average number of positions in the BD of other companies held by a non-executive director and ROA. An interesting result was obtained in the analysis of the relationship between the multiple directorship positions held by independent directors and ROA. It was found that there is an inverse relationship between the average number of positions held by independent director at the moment and ROA. At the same time, there was a direct relationship between the average number of positions that an independent director held over the past 5 years and ROA.

The model (11) was used to analyze the relationship between ROA and the multiple directorship positions of BD members who are at the same members of BD of subsidiaries. The variable characterizing the share of directors siting on BD

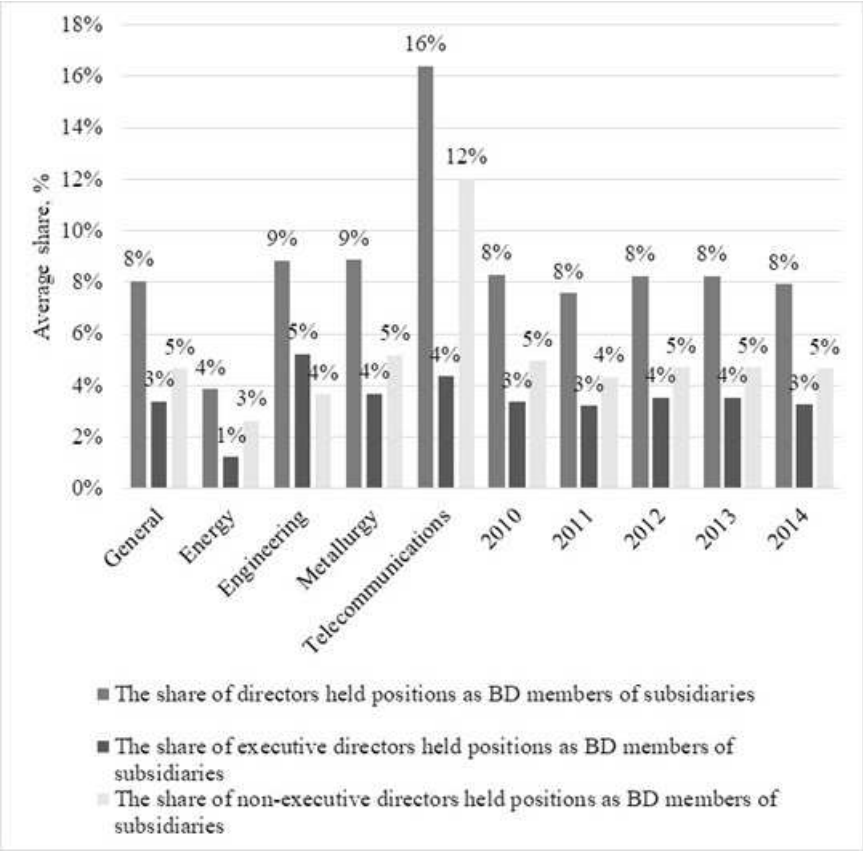

Fig. 8. Diagram of the dynamic of changing the share of directors held positions on BD of subsidiaries across industries and time.

of subsidiaries is statistically insignificant. This fact does not allow making any conclusions about the direction of the relationship between these variables.

Another part of the regression analysis is devoted to the study of the relationship between market performance presented by Tobin's Q and multiple directorship positions.

The results of the regression analysis with Tobin's Q as dependent variable are presented in table 5.

All models are statistically significant. Control variables of the baseline model are also significant at 1% significance level. The variable MULTI_NOWi, t, is statistically significant, the sign is negative, which allows to conclude that there is an inverse relationship between the average number of positions on BD of other companies and Tobin's Q. The variable MULTI_LASTi, t, reflecting multiple directorship positions held by directors over past 5 years is significant at 5% level. In contrast to the result of the analysis with ROA as dependent variable, it turned out that the average number of director positions held by a member of the BD over the past 5 years is positively associated with Tobin's Q.

Table 4. Results of regression analysis

Variable	$ROA_{i,\ t+1}$										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
$MULTI\_NOW_{i,t}$	-	-0,0037***	-	-0,0041***	-	-	-	-			
$MULTI\_LAST_{i,t}$	-	-	-0,0007	0,0013	-	-	-	-			
$EXEC\_MULTI\_NOW_{i,t}$	-	-	-	-	-0,0012	-	-0,0018	-			
$EXEC\_MULTI\_LAST_{i,t}$	-	-	-	-	-	0,0017	0,0021	-			
$NONEXEC\_MULTI\_NOW_{i,t}$	-	-	-	-	-0,0027**	-	-0,0027*	-			
$NONEXEC\_MULTI\_LAST_{i,t}$	-	-	-	-	-	-0,0016	-0,0002	-			
$INDEP\_MULTI\_NOW_{i,t}$	-	-	-	-	-	-	-	-0,0025**		-0,0044***	
$INDEP\_MULTI\_LAST_{i,t}$	-	-	-	-	-	-	-	-	0,0054	0,0033**	
$SUB\_MULTI\_NOW_{i,t}$	-	-	-	-	-	-	-	-			-0,0427
$SUB\_MULTI\_LAST_{i,t}$	-	-	-	-	-	-	-	-			0,0445
$SIZE_{i,t+1}$	0,0094***	0,0100***	0,0095***	0,0099***	0,0101***	0,0095***	0,0099***	0,0096***	0,0094***	0,0096***	0,0095***
$LEV_{i,t+1}$	-0,0091***	-0,0089***	-0,0091***	-0,0090***	-0,0089***	-0,0090***	-0,0088***	-0,0092***	-0,0091***	-0,0093***	-0,0091***
$BDSIZE_{i,t}$	-0,0085***	-0,0078***	-0,0084***	-0,0079***	-0,0079***	-0,0083***	-0,0079***	-0,0080***	-0,0085***	-0,0077***	-0,0085***
cons	-0,0854***	-0,0980***	-0,0872***	-0,0964***	-0,0981***	-0,0869***	-0,0957***	-0,0916***	-0,0848***	-0,0926***	-0,0860***
R^2	0,0876	0,0940	0,0878	0,0945	0,0938	0,0895	0,0961	0,0915	0,0877	0,0956	0,0895
p-value	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
N	1027	1027	1027	1027	1027	1027	1027	1027	1027	1027	1027

Statistical significance at the 10%, 5% and 1% by *, **, *** respectively

Table 5. Results of regression analysis

Variable	Tobin $_{i,\ t+1}$										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
$MULTI\_NOW_{i,t}$	-	-0,0086	-	-0,0219***	-	-	-	-	-	-	-
$MULTI\_LAST_{i,t}$	-	-	0,0255***	0,0357***	-	-	-	-	-	-	-
$EXEC\_MULTI\_NOW_{i,t}$	-	-	-	-	0,0178	-	0,0089	-	-	-	-
$EXEC\_MULTI\_LAST_{i,t}$	-	-	-	-	-	0,0329***	0,0299***	-	-	-	-
$NONEXEC\_MULTI\_NOW_{i,t}$	-	-	-	-	-0,0128	-	-0,0202**	-	-	–	-
$NONEXEC\_MULTI\_LAST_{i,t}$	-	-	-	-	-	0,0192	0,0194**	-	-	-	-
$INDEP\_MULTI\_NOW_{i,t}$	-	-	-	-	-	-	-	0,0029	-	-0,0193**	-
$INDEP\_MULTI\_LAST_{i,t}$	-	-	-	-	-	-	-	-	0,0249***	0,0369***	-
$SUB\_\ MULTI\_NOW_{i,t}$	-	-	-	-	-	-	-	-	-	-	-0,2052
$SUB\_\ MULTI\_LAST_{i,t}$	-	-	-	-	-	-	-	-	-	-	0,6876***
$SIZE_{i,t+1}$	0,0192***	0,0207***	0,0158**	0,0183***	0,0195***	0,0137**	0,01544**	0,0190***	0,0176***	0,0184***	0,0186***
$LEV_{i,t+1}$	0,0323***	0,0325***	0,0321***	0,0325***	0,0318***	0,0329***	0,0327***	0,0325***	0,0328***	0,0317***	0,0331***
$BDSIZE_{i,t}$	-0,0171**	-0,0154*	-0,0255**	-0,0171**	-0,0168	-0,0199**	-0,0184**	-0,0177**	-0,0182**	-0,0145*	-0,0168**
Cons	0,5821***	0,5511***	0,6556***	0,6064***	0,5823***	0,6935***	0,6647***	0,5891***	0,6117***	0,5795***	0,5760***
R^2	0,0365	0,0377	0,0448	0,0512	0,0428	0,0653	0,0704	0,0367	0,0501	0,0553	0,0498
p-value	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
N	993	993	993	993	993	993	993	993	993	993	993

Statistical significance at the 10%, 5% and 1% by *, **, *** respectively

On the next step, variables characterizing the multiple directorship positions of executive and non-executive directors were added to the model. The following results were obtained. Firstly, the variables EXEC_MULTI_LASTi,t and NONEXEC_MULTI_LASTi,t, are significant. Thus, it could be concluded that there is direct relationship between multiple directorship positions held by executive and non-executive directors over past 5 years and Tobin's Q. Secondly, the inverse relationship between the multiple directorship positions held by non-executive directors at the current moment and the Tobin's Q was established.

In the study of the relationship between the multiple directorship positions of independent and Tobin's Q a statistically significant relationship was established. On the one hand, it was concluded that there is inverse relationship between the average number of positions on the BD of other companies held by independent directors at the current moment and the Tobin's Q. On the other hand, direct relationship was found between average number of positions on the BD of other companies held by independent directors over past 5 years and Tobin's Q. A similar result was obtained in the case of operational performance as a dependent variable.

Further, the results of the analysis of the relationship between multiple directorship positons held by board members on the BD of subsidiary companies will be discussed. The results of this analysis are presented in model (11). It could be seen that there is a direct relationship between the share of directors sitting on BD of subsidiaries over past 5 years and Tobin's Q.

8. Discussion

Based on the results, the following conclusions could be drawn. First, there was an inverse relationship between the multiple directorship positons currently held by directors and the performance of the company measured by ROA, in one case, and the Tobin's Q, in the other case. Initially, it was assumed that there is a direct relationship between the number of positions on BD of other companies held by a member of BD and the Tobin's Q. However, this hypothesis was not confirmed. The inverse relationship between the multiple directorship positons and financial performance, both operational and market, could be explained in terms of the "Busyness" hypothesis. Members of the BD who hold positions on the BD of more than one company do not have enough time to perform their duties in good faith and of high quality. Overloaded with such extensive responsibilities on various BD, directors become unable to perform their functions effectively, which negatively affects the efficiency of the BD in general, which in turn negatively affects the financial performance of the company. This result is consistent with the result established in (Ferris et al., 2003; Fich and Shivdasani, 2006; Core et al., 1999).

It should be noted that in this study, along with the multiple directorship positons held by a member of the BD at the current moment, the multiple directorship positons that a member of the BD held in the past was also considered. This approach to the measurement of multiple directorship positons showed that there is a direct relationship between the average number of positions on the BD of other companies held by members of the BD over the past 5 years and the Tobin's Q. This result could be explained in terms of the resource dependency theory. The accumulated connections provide the company with access to important resources and opportunities, which allows the company to reduce transaction costs, as well as dependence on external stakeholders. The existence of a direct relationship can also

be explained from the perspective of the "reputation" hypothesis. The market considers the director, who has an experience of being a board member, as experienced and competent. The connections that a director has established in the past begin to bring benefits not immediately, it should take some time. Moreover, while sitting on the BD of companies, director accumulates certain experience, namely, the specific industry experience and the experience of working as board member. A member of the BD, who previously held positions on the BD of other companies, brings to the company valuable capital both social, expressed in the presence of certain connections, and human, associated with the accumulated experience. In this regard, the market expects that such a director has a fruitful impact on the effectiveness of the BD, which will have a positive impact on company's performance.

The study of the relationship between the multiple directorship positons occupied by executive and non-executive directors and the performance showed an inverse relationship between the average number of positions on the BD of other companies occupied by a non-executive director and the performance, operational and market one. In studies (Fich and Shivdasani, 2006; Lee and Lee, 2014) a similar result was obtained. The authors explain this result by the fact that external directors play a key role in the implementation of the monitoring and control function.

The study also found that the presence of BD members who over past 5 years occupied positions on the BD of subsidiaries has a positive impact on the Tobin's Q. It can be assumed that the members of the BD, who simultaneously hold positions both in the parent and in the subsidiary, have links with subsidiaries, which allows optimizing decision-making within the holding and contributes to a synergistic effect, which causes a positive market reaction.

9. Conclusion

In the study were considered the questions concerning definition of the social capital of board of directors, its role and structure. The study mainly focused on the analysis of the element of board's social capital that is multiple directorship positions and its relation to company's financial performance.

In the result of the study, the inverse relationship was established between the multiple directorship positions held by the members of the BD at the current moment and the return on assets. This result once again confirms the assumptions of the "busyness" hypothesis. We may assume that the costs associated with the inefficient execution of functions as a member of the board, arising from the director's overloaded work on the board of several companies, exceed the positive effects associated with the reputation, experience, and resources brought by such member of the board into the company. A similar result was obtained in the study of the relationship between the multiple directorship positions and the Tobin's Q. This result indicates that the market on average reacts negatively on the practice of simultaneous holding of positions as board member of several companies.

Interesting result was obtained in the case of analysis of the multiple positions that director held in past. The direct relationship was found between past multiple directorship positions and Tobin's Q. The possible explanation to the direct direction of the relationship is that a member of the board, who previously had experience of working as board member of other companies, on the one hand, has the knowledge and connections accumulated during that period of time, which are

valuable for the company; on the other hand, this director is no longer burdened with work on the BD of these companies.

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