IMPACT OF BOARD AND TOP MANAGEMENT GENDER DIVERSITY ON COMPANY PERFORMANCE

Tomáš Michalička*, Drahoslav Lančarič

Slovak University of Agriculture, Faculty of Economics and Management, Institute of Economic Policy and Finance, Tr. A. Hlinku 2, Nitra 949 76, Slovakia

Abstract

The paper is focused on the impact of Board of Directors and Top Management Team gender diversity on the company performance. Variables related to Board and Top Management gender diversity and various company characteristics were used to evaluate their impact on the company performance measured as company yearly revenue per employee for fiscal year 2020. Used data set consists of data for 722 multinational enterprises from 39 countries all around the globe. The results of lineal regression confirmed that the company performance is influenced by Board and Top Management gender diversity, and by company ownership and the size of the company.

Keywords: *gender diversity, board of directors, top management team, company performance*

1. INTRODUCTION

As women continue to make up a larger proportion of the workforce, companies are beginning to experience significant shifts in the pools of potential candidates for senior leadership positions (Burke & Nelson 2002). The diversification of these resource pools can have an impact on the composition of board of directors and thus on corporate governance. While diversity structure of boards can be a very visible attempt to demonstrate the absence of discrimination, it is not clear whether diversity within board or top management has real impact on company performance. The diversity literature suggests that diversity can negatively affect group dynamics but can improve group decision-making (Erhardt, Werbel & Shrader 2003).

The existing literature offers at least two conflicting general perspectives regarding the relationship between diversity and group performance. Some researchers theorize that diversity leads to a larger knowledge base, creativity and innovation and therefore becomes a competitive advantage (Watson, Kumar & Michaelsen 1993). Simons, Pelled & Smith (1999) published similar findings in their research of leadership diversity. Their results indicate that educational level and cognitive diversity are associated with positive effects on the performance of organizations. But they also argue that the experience diversity has a negative impact on the organization's return on investment and overall performance, which is a result of informal communication between top management teams. Other studies, focused specifically on the relationship between board diversity and performance, found positive results. For example, Siciliano (1996) used data from 240 YMCA organizations to construct and compare several measures of board diversity. Results showed higher levels of social performance and fundraising when board members were more professionally diverse. The results also showed that gender diversity played a role in the organization's social performance. Maznevski (1994) reviewed the literature on group diversity and questioned previous research stating that homogeneous decision-making groups perform better than heterogeneous groups. She argued that diversity has the potential to greatly enhance group decision-making. The key to increase the performance is integration and communication. According to her findings, improved integration and communication help to determine the performance of a diverse group.

Other group of authors outlining the potential negative effects of diversity suggest as the main argument the difficulty of integrating company workforce resources into an effective harmonized team. Considering this perspective, diversity may potentially be a disadvantage in terms of group performance. Hambrick, Cho & Chen (1996) conducted a longitudinal study of the impact of diversity on the performance of management teams in 32 major US airlines. Diversity was measured by functional,

educational, and occupational heterogeneity. Their results showed that homogeneous leadership teams perform better than diverse teams. They also reported that diverse teams were slower in their actions and reactions and less likely than homogeneous teams to respond to the competition initiatives. According to their explanation, individuals in a diverse group were more likely to disagree and thus weaken team consensus. According to Treichler (1995) workforce diversity, due to increased initiative and coordination, requires greater spending to meet the needs of different types of employees and has the potential to increase communication difficulties and conflicts between different group of employees. Based on the previous studies, it can be concluded that diversity has a potential to improve performance by increasing decision-making ability, but it can also impair group performance by escalating conflicts. Result of this discussion is the research question, how are these issues affecting the relationship between company leadership and company performance.

Shrader, Blackburn & Iles (1997) analyzed the relationship between gender diversity and the company financial performance on a sample of large enterprises at the level of middle and top management team and at the level of board of directors. Their results revealed general organizational effects but only little impact of top management diversity on performance and generally reported a positive relationship between gender diversity on leadership positions and the company financial performance. Authors explain the positive influence of gender leadership diversity on company performance by suggestion that these organizations recruited from a relatively larger talent pool and therefore subsequently recruited more qualified candidates regardless of gender. Richard (2000) in his study focused on the relationship between organizational diversity, business strategy and organization performance in the banking sector. As the performance metric was used return on equity and research sample consisted of 64 banks operating in three states. The results of the study confirm added value of diversity and the fact that it can be perceived as a relative competitive advantage for banks.

Diversity has a potential to produce higher creativity, innovation and quality decision-making at individual and group levels (Erhardt, Werbel & Shrader 2003). Presence of female representatives helps a board to fulfill its strategic function as their experience often closely matches with the needs of the firm. Women may have a slight advantage over men in terms of influence on strategic planning. As such, women may be able to help the board to fulfill its strategic role (Fondas 2000). Burke (2000) provides some practical arguments why companies should consider including qualified women to the board of directors. In general, there are not enough talented directors on the market or within companies. CEOs are increasingly rejecting proposals to join supervisory boards and current board members don't have time to take additional responsibilities, which makes it less practical to continue to rely only on male CEOs as potential future board members. Therefore, companies should expand their hiring focus beyond the traditional talent pools, as female board representatives can have significant symbolic value not only inside, but also outside the organization, connecting the organization with the other parties.

The main aim of the paper is to evaluate the impact of board of directors and top management team gender diversity on the performance of multinational enterprises (measured by revenue per employee) in selected countries within Europe, Americas, Africa, Asia, and Oceania. Analyzed is also the impact of selected company characteristics on the company performance.

2. MATERIALS AND METHODS

Data for the research were downloaded from TP Catalyst database (online database designed mainly for arm's-length benchmarking analysis containing extensive corporate ownership data including global coverage of companies around the globe, with detailed financials). The main idea for definition of selection criteria in the database was to get sufficient sample of companies with available quantitative data in form of financial statements, and qualitative data about Board / Top Management gender diversity and company characteristics. Therefore, it was decided to focus on multinational enterprises, which have, because of regulatory requirements in most of the countries, legal obligation to publish their financials and other company information in annual report. From regional perspective, the intention was not to focus only on one country or one geographical region, but to have a sample of companies from

all around the globe. Due to the high volume of available population of companies globally in the database, certain countries were selected to represent given region of the world.

Using above mentioned approach, we downloaded from the database the data for 722 companies from 39 countries. Because of the large volume of data, that each downloaded company profile from the database contained, we performed screening, pre-processing, and clustering of raw downloaded data, so they could be effectively used in the following stages of the research. Using already pre-processed downloaded data, we quantified board and top management gender diversity structure of companies and classified companies within defined company characteristics. For classification of companies within company characteristics we either used categorization directly from the database or using information about companies from the database we performed our own categorization. Using available data for each company, we created two diversity categories (*Board Female %, Top Management Female %*) and eight company characteristics categories (*Public / Private, Number of Employees, Geographical Region, Time on the Market, Family Business, Ownership Capital Origin, Ownership Capital Origin Country Economy, Economy Sector*). For measuring the company performance, we used revenue per employee metric and based on it created category *Company Performance*.

Based on the list of company leadership representatives, we identified for each company the total number of board and top management male and female representatives. Consequently, we were able to quantify percentage of male and female representatives within Board of Directors and Top Management Team. Based on these figures we created *Board Female %* and *Top Management Female %* categories, which on the scale from 0% to 100% are measuring % of female representatives within these two company leadership bodies (value 0% is representing Boards or Top Management Teams with no female members and value 100% is assigned to teams, where all team members are women). For the classification of companies within *Public / Private* category was leveraged categorization available directly in the database which is classifying companies into publicly traded companies on any stock exchange or private companies, which are not traded on stock exchange. Category *Number of Employees* was created based on the company data available directly in the database and it is expressing the size of the company from the perspective of number of employees. Using information about company country of residence, we classified companies into *Geographical Region* category. Company date of incorporation was used for categorization of companies within *Time on the Market* criteria, and it is expressing how many years is the company operating on the market since its establishment. Information from the database about company owner was used to categorize companies within *Family Business* category. According to this category, the company is classified as family business, if it is owned by physical person or family. By comparing the residence country of the company owner and the residence country of the company, companies were classified into *Ownership Capital Origin* category. If the residence country of the company owner is the same as the residence country of the company, the origin of company ownership capital is classified as domestic, otherwise as foreign. Leveraging World Bank country classification by GNI per capita and country of the company owner information from the database, companies were categorized within *Ownership Capital Origin Country Economy* characteristic. Using NACE Rev. 2 main section company information from the database, companies were categorized into *Economy Sector* characteristic. Operationalization of variables is summarized in Table 1.

Variable	Coding	Measurement
Board Female %	B_F	1 (0%)
		2 (1% to 49%)
		3 (50%)
		4 (51% to 99%)
		5 (100%)
Top Management Female %	T_M_F	1 (0%)
		2 (1% to 49%)
		3 (50%)
		4 (51% to 99%)
		5 (100%)
Public / Private	PU_PR	0 (Public)
		1 (Private)
Number of Employees	N_E	1 (Less than 100)
		2 (101 to 500)
		3 (501 to 2000)
		4 (More than 2000)
Geographical Region	G_R	1 (Europe)
		2 (Americas)
		3 (Asia)
		4 (Africa & Oceania)
Time on the Market	T_M	1 (1 to 5 years)
		2 (6 to 10 years)
		3 (11 to 20 years)
		4 (21 to 30 years)
		5 (over 30 years)
Family Business	F_B	0 (Yes)
		1 (No)
Ownership Capital Origin	O_C_O	0 (Domestic)
		1 (Foreign)
Country of Global Ultimate Owner	C_G_U_O	1 (High-income economies)
		2 (Upper-middle-income economies)
		3 (Lower-middle-income economies)
		4 (Low-income economies)
Economy Sector	E_S	1 (Primary)
		2 (Secondary)
		3 (Tertiary)
		4 (Quaternary)

Table 1. Variables operationalization

Source: Own research based on TP Catalyst data

Impact of variables on the company performance was analyzed by linear regression, where the dependent variable was company performance and independent variables were leadership gender diversity categories and selected company characteristics. The functional form of used regression model is as follows:

$$Y_i = \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + \beta_7 x_7 + \beta_8 x_8 + \beta_9 x_9 + \beta_{10} x_{10} + \varepsilon_i$$

where:

Y_i – Company Performance (dependent variable)

x_1 – Board Female %; x_2 – Top Management Female %; x_3 – Public / Private; x_4 – Number of Employees; x_5 – Geographical Region; x_6 – Time on the Market; x_7 – Family Business; x_8 – Ownership Capital Origin; x_9 – Ownership Capital Origin Country Economy; x_{10} – Economy Sector (x_1 – x_{10} are independent variables)

3. RESULTS

The relationship between independent variables (Board and Top Management gender diversity, selected company characteristics) and dependent variable (company performance) is analyzed by linear regression. Used linear regression model can be considered as suitable for testing of this type of relationship as the model significance, according to the results of ANOVA, is less than alpha (0.05). ANOVA results overview are shown in the table below.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	3462643054.478	10	346264305.448	6.831	.000
Residual	36038762409.853	711	50687429.550		
Total	39501405464.331	721			

Table 2. ANOVA results overview

Source: Own calculations based on TP Catalyst data

This linear regression model is statistically significant but explains only 9% of the variability of the dependent variable. The variability of the dependent variable *Company Performance* is also influenced by other factors that are not known i.e. they are not part of this paper. The overview of model statistics is summarized in the following table.

	Value
R	.296
R Square	0.088
Adjusted R Square	0.075
Std. Error of the Estimate	7119.510485259680000
Change Statistics:	
R Square Change	0.088
F Change	6.831
df1	10
df2	711

Sig. F Change	0.000

Table 3. Statistics summary of the model

Source: Own calculations based on TP Catalyst data

The results of regression show that not all analyzed variables have significant impact on company performance. Without any significant effect on company performance are variables *Geographical Region, Time on the Market, Family Business, Ownership Capital Origin, Ownership Capital Origin Country Economy,* and *Economy Sector*. On the other hand, *Board Female %, Top Management Female %, Public / Private* and *Number of Employees* categories are affecting company performance. Board and Top Management gender diversity are improving company performance. Better performance was also confirmed in a case of private companies (comparing to public) and in companies with lower number of employees. The results of regression are summarized in Table 4. It is also important to mention that the used model explains only 9% of the total variability, so the results need to be reviewed with due caution.

	B *	Std. Error *	Beta **	t	Sig.
(Constant)	591.472	2263.303		0.261	0.794
Board Female %	474.073	189.306	0.103	2.504	0.012
Top Management Female %	369.063	221.205	0.061	1.668	0.046
Public / Private	1856.351	662.027	0.121	2.804	0.005
Number of Employees	-1321.626	252.314	-0.197	-5.238	0.000
Geographical Region	164.196	303.492	0.021	0.541	0.589
Time on the Market	-272.967	205.293	-0.050	-1.330	0.184
Family Business	994.886	795.630	0.046	1.250	0.212
Ownership Capital Origin	496.093	717.755	0.027	0.691	0.490
Ownership Capital Origin Country Economy	-461.694	426.505	-0.041	-1.083	0.279
Economy Sector	-10.755	388.797	-0.001	-0.028	0.978

* Unstandardized linear regression coefficients

** Standardized linear regression coefficients

Table 4. Summary of linear regression model

Source: Own calculations based on TP Catalyst data

4. DISCUSSION

Performed research is analyzing the impact of company leadership gender diversity and other selected characteristics on company performance. The results are confirming Board of Directors and Top Management Team gender diversity as important factors improving the company performance. Positive impact of Board or Top Management gender diversity is in line with several previous studies from this area (Siciliano 1996; Smith, Smith & Verner 2006; Erhardt, Werbel & Shrader 2003; …). Bonn (2004) also confirms that the proportion of female directors is positive related to firm performance. According to study performed by Campbell & Minguez-Vera (2010), the appointment of female board representatives is related to positive stock market reaction and board gender diversity positively affects firm value. Study by Ren & Wang (2011) is focused on Top Management gender diversity and the

results confirm that gender diversity is positively related to firm value, especially when Top Management female representatives have high human or social capital.

The better performance of companies with fewer employees compared to companies with more employees can be explained by the fact that companies with fewer employees are more flexible than large companies. Small companies generally have smaller production scales and a less complex organizational structure, so they can react more quickly to unexpected market situations and adapt better to changes. This gives them a competitive advantage, which can consequently translate into better performance compared to companies with a larger number of employees (usually also related to larger production, more complex organizational structure, and more complicated processes), which are not that flexible and therefore have longer time to react to unexpected market changes.

The better financial performance of private companies compared to public companies can also be explained by the flexibility factor. The organizational structure and thus the decision-making process and the implementation of decisions are less complicated in private companies than in public companies. Thanks to this organizational advantage, private companies can make and implement decisions much faster and thus react more quickly to market changes. Therefore, their advantage of faster adaptation to market changes can lead to better performance compared to publicly traded companies, where the decision-making and implementation process is more complicated also because of the different regulatory requirements.

5. CONCLUSIONS

Based on the results of the research we can conclude that Board and Top Management gender diversity impact company performance. With the higher share of female representatives within these two company leadership bodies, the company performance is improving. Based on the results, we can also state that companies with lower number of employees and private companies achieve better performance than companies with higher number of employees and publicly traded companies.

Our recommendation to company policy makers is to nominate female members to Board of Directors and Top Management Team and to have more balanced company leadership from gender perspective as this can have positive impact on the company performance. As potential research limitation could be considered the fact, that it was performed on a certain type of companies (multinational enterprises) so the results might be different in another type of company. Another limitation is that there seems to be also other significant factors impacting company performance, which are not known resp. are not part of this research. Therefore, presented results need to be approached with a certain precaution. Our suggestion for future research is to analyze the relationship between leadership gender diversity and company performance on different type of the firm. Another suggestion is to evaluate the impact of different company characteristics on company performance and operations. Interesting would be also to evaluate which factors are influencing the relationship between leadership gender diversity and company performance.

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