

META-ANALYTIC REVIEW OF THE RELATION BETWEEN BOARD GLOBALIZATION AND FIRM PERFORMANCE

Ibrahim YAGLI, PhD Candidate*
Burcu ŞİMŞEK**

Abstract

Following the corporate governance scandals such as Enron, WorldCom, and Vivendi, the special attention has been attached to the board composition, and different dimensions related to board diversity has been discussed in this context. Recently, the interest in the board of directors' diversity has shifted to the globalization of boards, and the number of studies that investigates the relation between foreign board members and firm financial performance has increased. However, these studies report contradictory results, therefore the current study aims to reconcile these conflicting results. In response to these results, meta-analyses have been conducted by using the results obtained from 21 individual studies. The results show that the relation between foreign board representation and general firm financial performance is positive, however, the effect size for this relation is small. Similarly, there is a positive relation between foreign board representation and accounting-based firm performance. By contrast, the analysis has found that there is no statistically significant relation between foreign board representation and market-based firm performance. Overall, the results suggest that although foreign board representation does not lead large-scale increase in the firm financial performance, the impact is still positive. Even though the study has several limitations, the findings might assist the executives, shareholders, regulators, and researchers.

Keywords: Board diversity, foreign board representation, performance measurement, corporate governance, meta-analysis.

* Research Assistant, Institute of Social Sciences, Nevşehir Hacı Bektaş Veli University, Turkey.

** Research Assistant, Faculty of Economics and Administrative Sciences, Nevşehir Hacı Bektaş Veli University, Turkey.

JEL Classification: G34, L25, M14.

1. Introduction

Over the last two decades, one of the internal corporate governance mechanisms - Board of Directors (BoD) especially its' composition - has been intensely discussed by not only academic researchers but also executives and government leaders. Since the success of a company is mostly based on successful decisions made in the board, researchers attempt to find an answer to the question: "how the board of directors' composition should be to increase the quality of decisions made by BoD". In this regard, the relation between diversity in board especially observable ones such as gender, independence, age, tenure, nationality and firm performance has been intensively investigated (Carter et al., 2003; Erhardt et al., 2003; Rose, 2007; Adams and Ferreira, 2009; Ararat et al., 2010). As a result of these studies, some public authorities enforce the companies to have independent/outside board members (e.g. Korea, Turkey) and female board members (e.g. Norway, Spain, France, and Sweden) on their BoD.

For the last few years, interest in the board of directors' diversity has shifted to the globalization of board, in other words, the presence of foreign board members in BoD. Some researchers argue that foreign board representation increases the firm performance (Choi et al., 2012; Estelyiova and Nisar, 2012), while others advocate that the presence of foreign board members negatively affect the firm performance (Frijns et al., 2016; Hahn and Lasfer, 2016). Supporters of the presence of foreign board members assert that unless a firm corresponds to the global environment, political and economic situation in various countries, changing market dynamics, different customer expectations, and the firm is going to fail. It is stated that board members who have various backstory from the standpoint of education, experience, nationality, gender, and age may help the firm to deal with above-mentioned situations (Mishra, 2016). Accordingly, foreign board representation might assist the firm to have a broader perspective, correspondingly a better performance. It is also claimed that today many firms have foreign investors, so the presence of foreign board members helps the firm to understand their specific needs (Oxelheim and Randøy, 2003; Estelyiova and Nisar, 2012). In addition, foreign board members assist firm to have new skills,

knowledge, technology and contemporary management techniques and improve corporate governance (Liang et al., 2013). On the contrary, opponents allege that foreign board members are probably less informed about domestic affairs (Randøy et al., 2006). It is also claimed that communication is more difficult in the culturally diverse groups (Lehman and Dufrene, 2008; Anderson et al., 2011). Furthermore, foreign board members are less involved in board meetings compared to their national peers (Masulis et al., 2012; Hahn and Lasfer, 2016) and this ends up with less effective controlling and higher agency cost.

Even though it is reasonable to assume that the managerial capabilities of the BoD will significantly affect the firm performance, it is not clear whether the board composition affects the firm financial performance (Engelen et al. 2012, Müller, 2014). In line with this, existing literature introduces the conflicting results related to the impact of foreign board members on firm financial performance. Some studies find positive relation (Choi et al., 2007; Ruigrok and Kaczmarek, 2008; Honing, 2012; Ujunwa et al., 2012; Müller, 2014), while others report negative relation (Frijns et al., 2016; Hahn and Lasfer, 2016) and some find no significant relation between foreign board representation and firm financial performance (Rose, 2007; Darmadi, 2010; Engelen et al., 2012; Herdhayinta, 2014).

The current study aspires to shed light on these conflicting results and draw a complete picture about the impact of foreign board members on both accounting-based and market-based firm performance by utilizing meta-analysis. To put in more explicitly, the study aims to find out whether foreign board representation has a positive influence on the firm financial performance by capturing data from 21 individual studies in the literature. Even though there are some meta-analysis studies that focus on board independence (Dalton et al., 1998; Rhoades et al., 2000; Van Essen et al., 2012), board size or number of directors (Dalton et al., 1999) or female board members (Post and Byron, 2015), there is no meta-analysis studies related to foreign board members. Considering these, the article aims to fill this gap in the literature.

The rest of the paper proceeds as follows. The next section explains theoretical grounds on the relation between the composition of BoD and firm financial performance. Following this, are summarized those studies which investigate the relation between foreign board members and firm financial performance. The fourth

section presents data and methodology used in the study. The fifth section shows the results of the meta-analyses and the last section consists of summary and discussion.

2. Theoretical Framework

BoD is a group of people elected or assigned by shareholders for the management of a firm. In other words, BoD is the representatives of shareholders. The two key tasks fulfilled by the BoD are monitoring and controlling management on behalf of the shareholders and providing resources to the firm (Hillman and Dalziel, 2003; Pugliese et al., 2014).

It is argued that the composition of BoD affects the effectiveness of their functioning and correspondingly firm performance (Hermalin and Weisbach, 1991; Yermack, 1996). Therefore, the impact of foreign board representation on firm financial performance might be examined related to the effectiveness of the board of directors' functions. The impact of the foreign board members on the monitoring role might be explained by agency theory. Agency theory stated that one of the key roles of BoD is monitoring and controlling management (Jensen and Meckling, 1976; Fama and Jensen, 1983) and effective monitoring might increase firm performance by decreasing agency cost (Hillman and Dalziel, 2003). Besides, shareholders will elect the representatives to be trusted to fulfill this task. In addition, the psychological literature reveals that similarities such as gender, shared perspective are associated with trust (Levin et al., 2006). Regarding these, it will be no wrong to state that domestic shareholders will elect domestic board members they share common values since they believe that they are more powerfully represent their interests (Oxelheim et al., 2013). With the same viewpoint, foreign shareholders ask to be foreign board members in the BoD who protect their interests. Therefore, foreign board representation will be interpreted as an indication of protecting the rights of foreign and minority shareholder. Carter et al. (2003) also argued that diversity in BoD increases the board independence since board members who have different backgrounds ask various questions that board members with a similar background will not ask. Moreover, foreign board members might act as independent directors since they care about their prestige (Estelyiova and Nisar, 2012) and so the presence of foreign board members might enhance corporate governance. A foreign board member might also improve the

corporate governance when he/she comes from developed countries in terms of corporate governance (Miletkov et al., 2016).

The other theory that relates the composition of BoD to firm performance is Resource Dependency Theory (RDT). This theory emphasizes the capital aspect of BoD that comprises both human capital such as experience, expertise, reputation and relational capital like external contingencies and communication networks to the outside (Hillman and Dalziel, 2003) and argues that board diversity might enhance the firm performance since diversity links the firm to its external environment and stakeholders (Rose et al., 2013). In other words, RDT proposed that the role of BoD is providing access to resources such as information resources, communication networks, financial and reputational supports and legitimacy (Preffer and Salancick, 2003). Similarly, researchers propound that globalization of the markets and worldwide operations have forced firms to have different knowledge related to customer expectations, regulatory regimes, accounting principles and etc. In conjunction with this, shareholders might bring the firm into a broader perspective and correspondingly better performance by electing foreign board members who came from different backgrounds (Mishra, 2016).

3. Literature Review

Diversity in BoD has become one of the important topics discussed by researchers. Some studies considered nationality with other characteristics of board diversity such as gender, age, and tenure while several studies concentrated only foreign board representation. Some of these studies are summarized below.

One of the first studies that examine the impact of foreign board members on firm value was conducted by Oxelheim and Randøy (2003). They used a dummy variable for independent Anglo-American board membership. The empirical results revealed that foreign board membership enhances the firm value. Similarly, Ameer et al. (2010) investigated the relation between board composition and firm performance for emerging markets. The empirical results demonstrated that independent and foreign directors are associated with better firm performance. In addition, Choi et al. (2007) revealed that foreign board representation is positively associated with firm financial performance for Korea. Estelyiova and Nisar (2012) also investigated the impact of foreign board members on firm operations and performance. The results showed that national diversity in BoD is

positively and significantly associated with firm financial performance measured by Tobin's Q and ROA. Ujunwa et al. (2012) investigated the relation between board diversity and firm financial performance for Nigeria. Nationality, gender and ethnicity were considered regarding to the board diversity in the study. The findings demonstrated that gender diversity is negatively associated with firm financial performance, while nationality and ethnicity are positively linked with firm financial performance. In addition, Müller (2014) examined the impact of board composition on the firm financial performance measured by return on assets. In the study, 9 corporate governance characteristics regarding to the board composition were considered. The results showed that independent board members and the foreign board members have a positive impact on the firm performance.

Masulis et al. (2012) analyzed the impact of foreign independent directors on corporate governance and firm financial performance. The results showed that foreign independent directors are negatively associated with firm financial performance. Hahn and Lasfer (2016) examined the impact of foreign directors on board meeting frequency and firm financial performance. The results demonstrated that foreign non-executive board member leads to the firm have fewer board meetings, hence increase the agency conflict due to the reducing monitoring and advisory role of BoDs. Therefore, the overall effect of foreign non-executive board members on firm financial performance namely shareholders return is negative. In addition, Frijns et al. (2016) investigated the impact of national cultural diversity on the firm financial performance measured by Tobin's Q and ROA. Their findings revealed that national cultural diversity deteriorates the firm financial performance.

Darmadi (2010) examined the relation between board diversity and firm financial performance for Indonesia. He focused three different dimensions of BoD diversity gender, nationality and age respectively. According to the results, there is a negative relation between female directors and firm financial performance, while there is no statistically significant relation between foreign directors and firm financial performance. Engelen et al. (2012) also examined the relation between board diversity and firm financial performance for Netherlands. In the study, board diversity was measured with seven dimensions including nationality diversity, gender diversity, educational diversity, diversity with respect to the field of education,

expertise diversity, socioeconomic background diversity and age diversity. Findings showed that there is no statistically significant relation between gender diversity, nationality diversity, diversity with respect to education and firm financial performance during the crisis. Furthermore, Jhunjhunwala and Mishra (2012) questioned the relation between board diversity and firm financial performance, namely earnings per share in the Indian context. The board diversity was measured with respect to gender, age, tenure, education, experience, and nationality. The findings revealed that there is no statistically significant relation between board diversity and firm financial performance. In addition to all, Miletkov et al. (2016) investigated the impact of foreign independent directors on the firm financial performance. On average, they found that no statistically significant relation between foreign independent and firm financial performance. Further to that, they reported a statistically negative relation in countries with higher quality legal institutions and more positive (less negative) relation when foreign independent directors come from a country with higher quality legal institutions than the host country of the firm.

4. Data and Methodology

The current study aims to make a meaningful generalization for the relation between foreign board representation and firm financial performance by utilizing meta-analysis. As one of the research syntheses meta-analysis aims to quantitatively integrate the results of a set of individual studies. Meta-analysis consists of three steps in general (Schmidt and Hunter, 2014): (1) search and gather studies, (2) extract and code studies and (3) apply meta-analysis to the studies extracted. Thus, the analysis process will be explained based on this order.

In the study, three separate meta-analyses are conducted. Initially, a meta-analysis is utilized in order to calculate the effect size for the relation between foreign board representation and general firm financial performance. Following this, the sample is divided into two separate groups based on the nature of financial performance indicator, and two more meta-analyses, one for accounting-based firm performance and one for market-based firm performance, are conducted.

4.1. Search Strategy

Different databases (Emerald Insight, JSTOR, EBSCOhost, ERIC, ProQuest Digital Dissertation, Taylor & Francis, Sage Journal, Science Direct and Springer Link) have been searched to determine empirical researches related to foreign board representation and firm financial performance. The search has been conducted using the different combination of following terms; foreign, international, globalization, diversity and composition with board, board members, directors, corporate governance and firm performance. In addition to this, reference lists of several studies have been reviewed. Although a total of 4407 publications were obtained as a result of these searches, only 42 studies are related to foreign board representation and firm financial performance.

4.2. Study Selection and Sample

In this section, the sample used in the meta-analysis is introduced based on inclusion criteria. In the meta-analysis, the measurement used to make an overall inference by aggregating individual studies is effect size. Effect size is a kind of indices that measure the magnitude of subject investigated on the population (Cohen, 1988). Although there are different types of effect size, the three commonly used effect sizes are (1) effect size based on means, (2) effect size based on correlation and (3) effect size based on binary data. In the study, the effect size based on correlations is used to investigate the relation between foreign board representation and firm financial performance. Correlation coefficient itself might be used as the effect size (Borenstein et al., 2009). Therefore, main criteria for inclusion is that the study must include Pearson product-moment correlation or the data which required to calculate the correlation. If the study did not report the effect size, the request has been send to the corresponding authors. Therefore, studies did not report effect size or sufficient information to calculate the effect size or did not respond to request excluded from the sample. In addition, it is not necessary that the relation between foreign board representation and firm financial performance is the main focus of the article (e.g. Barako and Brown, 2008; Frias-Aceituno et al., 2013). Furthermore, studies that combine nationality with other aspects of diversity excluded from the sample (e.g. Erhardt et al., 2003). The duplicates (e.g. Masulis et al., 2012) also drop from the sample.

As a result, 21 qualified studies constitute the sample of this study¹. These studies consist of 11 articles, 7 dissertations, 2 working papers, and 1 book chapter. Studies cover several countries including Canada, Denmark, Germany, Finland, Indonesia, Spain, Sweden, Italy, Malaysia, Norway, Netherlands, Korea, Kenya, UK, and US. Moreover, the total number of firms is 5106.

4.3. Study Coding

The task done after the determination of empirical studies is the coding of these studies. To code studies, several rules are applied. For coding the studies, the surnames of first two authors and study year are used for the code name. Another rule applied for coding studies is that when a study comprises a range of sample, the lowest sample size is considered (e.g. Choi et al., 2007). Furthermore, when a study gives the sample as firm-year format, only number of firms is coded as sample size (e.g. Van Den Berg, 2015). In addition, when a study used more than one independent samples (e.g. Stolk, 2011), each correlation which belongs to the each sample is utilized as analysis unit since each sample represents specific effect size for country or industry. In addition, if a study employs more than one measure for foreign board representation and/or firm financial performance, the average value is considered in order to ensure independence (see Glass, 1982).

4.4. Study Variables

The interest in the relation between board composition and firm performance has increased in recent years. In this regard, foreign board representation has been one of the issues highly emphasized. Plenty of studies has been conducted to reveal the impact of foreign board representation on the firm financial performance. In these studies, foreign board representation has been measured in different ways. As well as foreign board representation, firm financial performance has been examined in various ways. Therefore, in this section, it is described that how each variable was measured in primary studies.

¹ The number of samples included in meta-analysis is 22 since Stolk (2011)'s study comprises two independent sample, one for Netherlands and one for Malaysia. In addition, the number of samples included in accounting-based firm performance is 18, market-based firm performance is 15.

In the primary studies included in the meta-analysis, foreign board representation has been examined in a many different ways including the number of foreign directors, the ratio or percentage of foreign directors to the total directors, a dummy variable for foreign directors and nationality index (e.g. Blau index). In the majority of studies, foreign board representation has been examined without separation of executive and non-executive, while in a few studies foreign directors representation has been measured based on the non-executive director (e.g. Masulis et al., 2012; Choi et al., 2012).

Studies that investigate the impact of foreign directors on the firm financial performance also vary based on the financial performance indicators. While some studies utilized accounting-based performance indicators (e.g. Ameer et al., 2010; Müller, 2014), others used market-based performance indicators (e.g. Choi et al., 2012; Arnegger et al., 2014). In addition to these, several studies employed both two performance indicators together (e.g. Darmadi, 2010; Masulis et al., 2012; Andrevski et al., 2014)

Even though accounting-based performance indicators are often used, they have some drawbacks. The most crucial issue related to accounting-based performance indicators is that they are subject to manipulate, in other words, they are under the control of management (Dalton et al., 1998). Therefore, it is argued that accounting-based performance indicators do not accurately measure the firm financial performance (Chakravarthy, 1986). Furthermore, accounting-based performance indicators are criticized since they capture historical/past performance (Kiel and Nicholson, 2003). In addition, this kind of measures also ignores the risk (Temple and Peck, 2002). In contrast, market-based performance measures have several advantages: (1) they reflect risk-adjusted performance, (2) they are not under the control of management, and (3) they are forward-looking.

In the view of above-mentioned issues, the firm financial performance indicators are separated into the two groups in order to clarify whether the nature of performance measures have any impact on the relation between foreign board representation and firm financial performance. Accounting-based performance measures includes return on assets (ROA), return on equity (ROE), sales growth, operating self-sufficiency (OSS), financial self-sufficiency (FSS) and non-performing loan, while market-based performance indicators comprise Tobin's Q and its derivatives (e.g. ln(Tobin's Q)),

average stock return, buy and hold return (BHR). In addition all this, Tobin's Q is the most commonly used market-based performance indicator, while ROA and ROE are most widely used accounting-based performance measures. Apart from all these, more than one performance measure either from the same group or different groups are used in some studies, in this case, the average effect size is considered.

4.5. Calculating the Effect Size

A meta-analysis based on correlation has been conducted in order to reveal the true relation between foreign board representation and firm financial performance. Therefore, studies report correlation or enough data to calculate the effect size has been included in the sample.

One of the key assumptions of meta-analysis is that studies included should be statistically independent. Correspondingly, several steps have been followed to ensure the assumption of independence. Initially, duplicates which use same data (e.g. journal articles based on dissertations) have been considered only once. In addition, when a study employs multiple measures for foreign board representation or a number of performance measures or included multiple periods, the average value has been considered based on the Glass (1982) proposition. Furthermore, since studies used a different type of performance measure, they have been divided into two groups and analyzed separately.

There are two models, fixed-effect model and random effect model respectively to conduct a meta-analysis. In the fixed-effect model, it is assumed that all studies in the meta-analysis share a common effect size, in other words, there is only one true effect size for all studies. This also refers that differences in observed effects are caused only by sampling error (Borenstein et al., 2009). In contrast, it assumed that true effect size might differ from one study to another due to the moderators in the random-effect model. Therefore, effect sizes obtained from studies included in the meta-analysis are supposed to be a random sample of this distribution. Additionally, although more weights are assigned to the more precise studies in both models to obtain more accurate estimate of the summary effect, there exists distinction between two models. In the fixed-effect model, more weight is assigned to larger samples since it aims to predict to one true effect size while in the random effect model, the more

relative weight is assigned because the model aims to determine the mean of distributions of effects. Therefore, the fixed-effect model is criticized since it ignores studies with small samples in assigning the weights, hence many researchers suggest using random effect model (Borenstein et al., 2009; Schmidt and Hunter, 2014).

Another issue related to meta-analysis study is publication bias. The publication bias implies that studies with statistically significant results more likely to publish compared to studies with non-significant results. Therefore, the most efficient way to avoid publication bias is including unpublished and published studies in the meta-analysis, nevertheless, this does not guarantee the avoidance of publication bias (Ustun and Eryilmaz, 2014). In fact, publication bias is not a specific problem to the meta-analysis, it is also valid for other review methods (Borenstein et al., 2009). Beyond this, a meta-analysis provides methods including visual plots such as forest plots, funnel plots and quantitative analysis like Begg and Mozumdar Method, Egger's linear regression method, Rosenthal's fail-safe N method, and Orwin's fail-safe N method to detect publication bias (Borenstein et al., 2009) and methods such as Original Hedges-Olkin method, Iyengar-Greenhouse method, Duwal-Tweedie's Trim and Fill method to correct it (Schmidt and Hunter, 2014).

5. Analysis and Results

Meta-analysis consist of following main steps (Borenstein et al., 2009):

- (1) Correlation coefficient is usually directly obtained from the study; if it is not reported in the study, it should be calculated;
- (2) Correlation coefficient is converted to the Fisher's z scale and converted values used in the analyses:

$$\text{Fisher's } z = 0.5 \times \ln\left(\frac{1+r}{1-r}\right)$$

- (3) Each effect size is weighted by its inverse variance in order to give more weight to the larger samples²:

$$W^* i = \frac{1}{(\sigma^2/n) + r^2}$$

² This formula is used for weighting the effect size under the random-effects model.

(4) The summary values are converted back to the correlation:

$$r = \frac{e^{2z} - 1}{e^{2z} + 1}$$

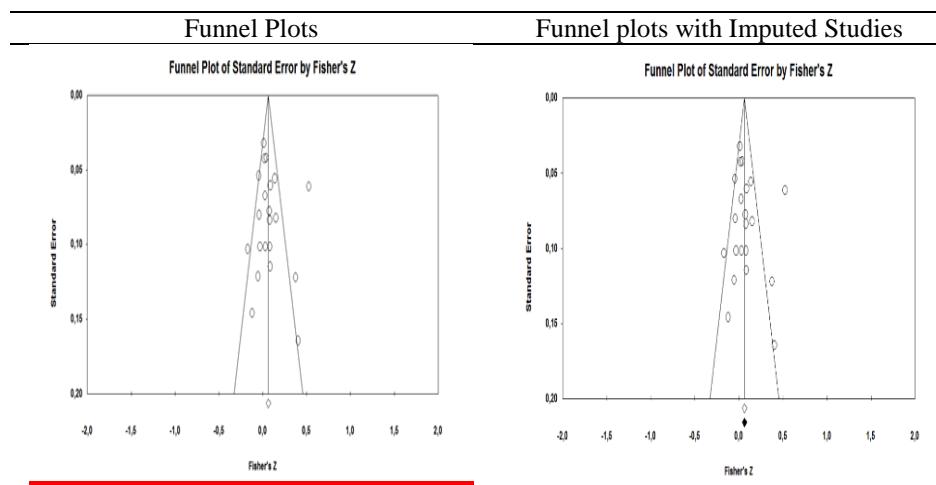
In the study, three meta-analyses, one for general financial performance, one for accounting based performance and one for market-based performance are conducted to reveal the relation between foreign board representation and firm financial performance. The analyses are predicted with the random-effect model since the studies differ significantly from each other. All analyses are performed using Comprehensive Meta-Analysis (CMA) Software.

5.1. Detecting Publication Bias

Publication bias is one of the critical issues in the meta-analysis. To detect the publication bias two methods one graphical method (funnel plots) and one quantitative method (Begg and Mozumdar method) respectively are utilized.

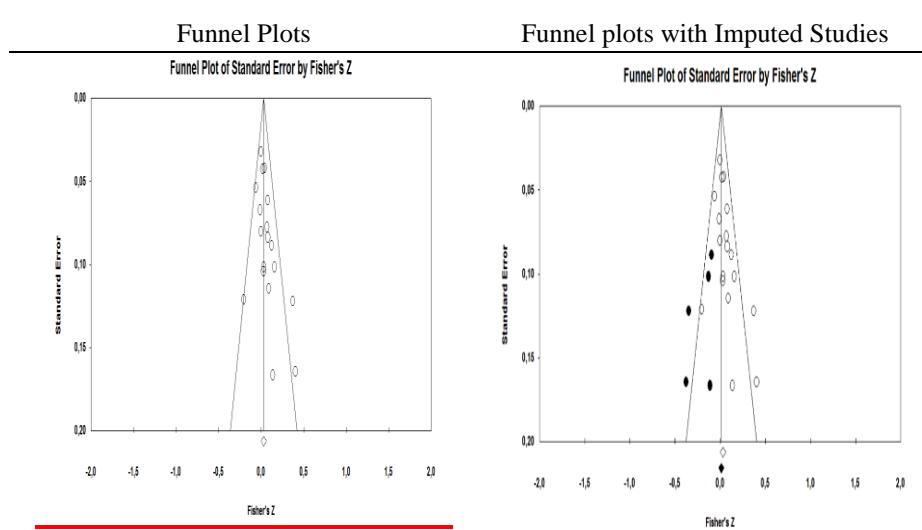
Funnel plots are a kind of scatterplot that displays the relation between sample size and effect size. In the funnel plot, the effect size is demonstrated in X axis and sample size in the Y axis. Studies with larger samples appear near the top of the plot while studies with smaller samples will locate at the bottom of the plot. More clearly, the summary effect size in studies with smaller samples will vary widely since because of the greater sampling error (Borenstein et al., 2009). The funnel plot is grounded in the fact that, the average effect size will be the same in the absence of any bias, therefore it is expected that the plot looks like a symmetrical inverted funnel. Funnel plots for each sample are depicted below. According to these results, there is publication bias for only accounting-based firm performance analysis.

Table 1
**The Funnel Plots for the relation foreign board representation
 and general firm financial performance**



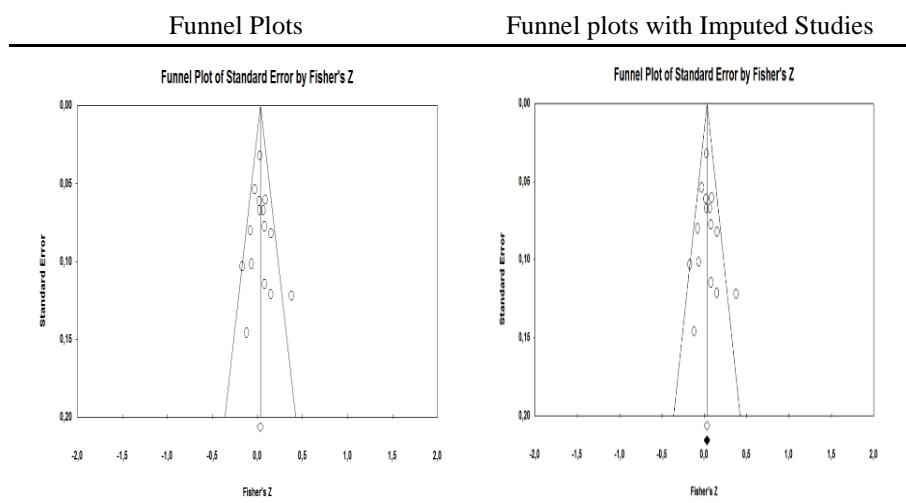
Source: Borenstein et al., 2009

Table 2
**The Funnel Plots for the relation foreign board representation
 and accounting-based firm performance**



Source: Borenstein et al., 2009

Table 3
The Funnel Plots for the relation between foreign board representation and market-based firm performance



Source: Borenstein et al., 2009

In addition to funnel plots, Begg and Mozumdar method is also used in the study. Different from the funnel plots, Begg and Mozumdar method is used to detect the publication bias quantitatively. This method assumes that studies with small sample will be published when they report a large correlation while studies with large sample will be published regardless of the size of correlation (Schmidt and Hunter, 2014). Therefore, the availability of publication bias is detected based on the correlation. In more detail, there is no publication bias unless the Kendall tau is statistically significant. Begg and Mozumdar test results reveal that although there are no publication bias for general firm financial performance (Kendall $\tau = 0,099$; $p=0,516$) and market-based firm performance analyses (Kendall $\tau = 0,114$; $p=0,553$), there is publication bias for accounting-based firm performance analysis (Kendall $\tau = 0,353$; $p=0,041$).

5.2. Correcting Publication Bias

One of the methods might be applied in order to correct the publication bias is Duval-Tweedie's Trim and Fill method which grounded Wilcoxon distribution. This method is for adjusting for the effects of publication bias rather than detecting whether it exists

(Schmidt and Hunter, 2014). The method is applicable both under the random-effect model and fixed-effect model. Even though it is a simple method, it gives very close results to the complicated methods (Duval and Tweedie, 2000). In the study, this method is used to obtain adjusted effect size for the relation between foreign board representation and accounting-based firm performance.

Table 4
The results of Duval and Tweedie's trim and fill test

Random Effects Model					
	Studies Trimmed	Point Estimate	Lower Limit	Upper Limit	Q Value
Observed Values		0,043	0,000	0,085	25,877
Adjusted Values	5	0,015	-0,033	0,063	45,468

5.3. Estimating Effect Size

The results of three meta-analyses are depicted in Table 5. The observed value for accounting-based firm performance analysis is also demonstrated in the parenthesis.

Table 5
Correlation effect size for foreign board representation and firm financial performance

	Number of Studies	Effect Size	95% Confidence Interval	Z- value	P-value	τ^2	Q_w
General Firm Financial Performance	22	0,074	0,012 0,135	2,348	0,019	0,015	89,957
Accounting-Based Firm Performance	18	0,043 (0,015)	0,000 (-0,033)	0,085 (0,063)	1,980	0,048	0,002 (45,468)
Market-Based Firm Performance	15	0,035	-0,012	0,082	1,450	0,147	0,003

Results show that the effect size for the relation between foreign board representation and general firm financial performance is positive ($\rho=0,074$) and at the same time this effect size is statistically significant ($Z=2,348$; $p<0,05$). Therefore it can be said that there is statistically significant and positive relation between foreign board

representation and general firm financial performance. However, the magnitude of the effect size of 0,074 is interpreted as small according to the Cohen's Effect Size Classification³. Confidence intervals show the accuracy of each estimate and whether the findings are statistically significant. The effect sizes for the relation between foreign board representation and general firm financial performance range from $p=0,012$ to $p=0,135$ in the 95% confidence interval. Similarly, there is a positive and statistically significant relation between foreign board representation and accounting-based firm performance ($Z=1,980$; $p<0,05$). The corrected effect size for the relation between foreign board representation and accounting-based firm performance is $p=0,015$. In contrast, the effect size for the relation between foreign board representation and market-based financial performance is $p=0,035$ however, this effect size is not statistically significant ($Z=1,450$; $p>0,05$).

6. Summary and Discussion

Scandals such as Enron, WorldCom, Vivendi that have taken place after 2000 have led to an increased importance of corporate governance for investors. Therefore, firms have begun to place more importance on corporate governance practices than ever before. Correspondingly, the impact of the board of directors' composition or diversity in BoD to firm performance has been examined in detail. In this context, size, age, tenure, independence, gender, and nationality have been investigated. In addition, studies related to female board members and independent board members reserve a larger place in the literature. Recently, the trend has shifted to the foreign board members and the number of studies that investigate the relation between foreign board members and firm financial performance considerably increased. However, these studies report contradicting results; while some find positive relation others report negative relation and some find no significant relation between foreign board representation and firm financial performance. Parallel to the situation, the current study aims to reconcile these conflicting results by utilizing meta-analysis.

To investigate the relation between foreign board representation and firm financial performance, three meta-analyses

³ According to the Cohen (1988) effect size classification, the Pearson correlation r is interpreted as small if $r=0,10$; medium if $r=0,30$ and large if $r=0,50$.

are conducted. Financial performance is considered in three different ways; general firm financial performance, accounting-based firm performance, and market-based firm performance respectively. The results of meta-analyses reveal the summary effect size for the relation between foreign board representation and general firm financial performance is positive and statistically significant. In other words, foreign board members might improve general firm financial performance. However, this relationship is not strong since the magnitude of this effect is small according to the Cohen's effect size classification. In addition, according to the findings, foreign board representation might increase the accounting-based firm performance; on the other hand, there is no statistically significant relation between foreign board representation and market-based firm performance.

After all, it can be said that the foreign board members will enhance firm financial performance. This finding is similar to the results of Ujunwa et al. (2012) and Müller (2014). Furthermore, even though the results reveal that there is a statistically significant relation between foreign board representation and accounting-based firm performance and there is no statistically significant relation between foreign board representation and market-based firm performance, it is wrong to say that the board of directors has control on the accounting-based firm performance since the effect size is quite small ($p=0,043$).

Our analysis may suffer from a number of limitations. Although, the composition of BoD or diversity in BoD is one of the popular issues related to corporate governance, the number of studies that examine the impact of foreign board representation on firm financial performance is relatively low compared to female board representation and independent board representation, so a relatively small sample is used in this study. To increase the number of individual studies included in the meta-analysis, measures for both foreign board representation and firm financial performance have not been elaborated too much. In the near future, more reliable meta-analysis study that investigates the relation between foreign board representation and firm financial performance will be conducted as the number of individual studies increases. The increasing number of individual studies also allow the researchers to work with more specific measures for both foreign board representation and firm financial performance. In addition to all, firm and country level

characteristics might affect the relation between foreign board representation and firm financial performance, therefore the impact of moderators such as strength of legal rights, firm size, and firm internalization on this relation might be examined.

References

1. Adams, R. B., and Ferreira, D. (2009) "Women in the boardroom and their impact on governance and performance". *Journal of Financial Economics*, 94(2), pp. 291-309.
2. Ameer, R., Ramli, F., and Zakaria, H. (2010) "A new perspective on board composition and firm performance in an emerging market". *Corporate Governance: The International Journal of Business in Society*, 10(5), pp. 647-661.
3. Anderson, R. C., Reeb, D. M., Upadhyay, A., and Zhao, W. (2011) "The economics of director heterogeneity". *Financial Management*, 40(1), pp. 5-38.
4. Andrevski, G., Richard, O. C., Shaw, J. D., and Ferrier, W. J. (2014) "Racial diversity and firm performance: the mediating role of competitive intensity". *Journal of Management*, 40(3), pp. 820-844.
5. Ararat, M., Aksu, M. H., and Tansel Cetin, A. (2010) "The impact of board diversity on boards' monitoring intensity and firm performance: evidence from the Istanbul Stock Exchange".
6. Arnegger, M., Hofmann, C., Pull, K., and Vetter, K. (2014) "Firm size and board diversity". *Journal of Management & Governance*, 18(4), pp. 1109-1135.
7. Barako, D. G., and Brown, A. M. (2008) "Corporate social reporting and board representation: evidence from the Kenyan banking sector". *Journal of Management & Governance*, 12(4), pp. 309.
8. Borenstein, M., Hedges, L.V., Higgins, J.P.T. and Rothstein, H.R. (2009) "Introduction to Meta-Analysis". John Wiley, USA.
9. Carter, D. A., Simkins, B. J., and Simpson, W. G. (2003) "Corporate governance, board diversity, and firm value". *Financial Review*, 38(1), pp. 33-53.
10. Chakravarthy, B. S. (1986) "Measuring strategic performance". *Strategic Management Journal*, 7(5), pp. 437-458.

11. Choi, H., Sul, W., and Kee Min, S. (2012) “Foreign board membership and firm value in Korea. *Management Decision*”, 50(2), pp. 207-233.
12. Choi, J. J., Park, S. W., and Yoo, S. S. (2007) “The value of outside directors: Evidence from corporate governance reform in Korea”. *Journal of Financial and Quantitative Analysis*, 42(04), pp. 941-962.
13. Cohen, J. (1988) “Statistical power analysis for the behavioral sciences”. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
14. Dalton, D. R., Daily, C. M., Ellstrand, A. E., and Johnson, J. L. (1998) “Meta-analytic reviews of board composition, leadership structure, and financial performance”. *Strategic Management Journal*, 19(3), pp. 269-290.
15. Dalton, D. R., Daily, C. M., Johnson, J. L., and Ellstrand, A. E. (1999) “Number of directors and financial performance: A meta-analysis”. *Academy of Management Journal*, 42(6), pp. 674-686.
16. Darmadi, S. (2010) “Board diversity and firm performance: the Indonesian evidence”.
17. Diepen, N. M. (2015). “The effect of gender, age and nationality diversity on company performance—Evidence from the Netherlands”. (Bachelor's thesis, University of Twente).
18. Duval, S., and Tweedie, R. (2000) “Trim and fill: a simple funnel-plot-based method of testing and adjusting for publication bias in meta-analysis”. *Biometrics*, 56(2), pp. 455-463.
19. Engelen, P. J., van den Berg, A., and van der Laan, G. (2012) “Board diversity as a shield during the financial crisis”. *Corporate Governance* (pp. 259-285), Springer Berlin Heidelberg.
20. Erhardt, N. L., Werbel, J. D., and Shrader, C. B. (2003) “Board of director diversity and firm financial performance”. *Corporate Governance: An International Review*, 11(2), pp. 102-111.
21. Estelyiova, K., and Nisar, T. M. (2012) “The determinants and performance effects of diverse nationality boards”.
22. Fama, E. F., and Jensen, M. C. (1983) “Agency problems and residual claims”, *The Journal of Law and Economics*, 26(2), pp. 327-349.

23. Frias-Aceituno, J. V., Rodriguez-Ariza, L., and Garcia-Sanchez, I. M. (2013) “The role of the board in the dissemination of integrated corporate social reporting”, *Corporate Social Responsibility and Environmental Management*, 20(4), pp. 219-233.
24. Frijns, B., Dodd, O., and Cimerova, H. (2016) “The impact of cultural diversity in corporate boards on firm performance”, *Journal of Corporate Finance*, 41, pp. 521-541.
25. García-Meca, E., García-Sánchez, I. M., & Martínez-Ferrero, J. (2015). “Board diversity and its effects on bank performance: An international analysis”. *Journal of Banking & Finance*, 53, pp. 202-214.
26. Glass, G. V. (1982) “Meta-analysis: An approach to the synthesis of research results”, *Journal of Research in Science Teaching*, 19(2), pp. 93-112.
27. Hafsi, T., & Turgut, G. (2013). “Boardroom diversity and its effect on social performance: Conceptualization and empirical evidence”. *Journal of Business Ethics*, 112(3), pp. 463-479.
28. Hahn, P. D., and Lasfer, M. (2016) “Impact of foreign directors on board meeting frequency”, *International Review of Financial Analysis*, 46, pp. 295-308.
29. Herdhayinta, H. (2014) “The influence of board diversity on financial performance: An empirical study of Asia-Pacific companies”, (Master's thesis, Universitet i Agder/University of Agder).
30. Hermalin, B. E., and Weisbach, M. S. (1991) “The effects of board composition and direct incentives on firm performance”. *Financial Management*, pp. 101-112.
31. Hillman, A. J., and Dalziel, T. (2003) “Boards of directors and firm performance: Integrating agency and resource dependence perspectives”. *Academy of Management Review*, 28(3), pp. 383-396.
32. Honing, S. (2012) “Does diversity in executive boards make a difference? Nationality diversity and firm performance in German, Dutch and British multinational enterprises”, Available at SSRN: <https://ssrn.com/abstract=2147237> or <http://dx.doi.org/10.2139/ssrn.2147237>.

33. Jensen, M. C., and Meckling, W. H. (1976) "Theory of the firm: Managerial behavior, agency costs and ownership structure", *Journal of Financial Economics*, 3(4), pp. 305-360.
34. Jhunjhunwala, S., and Mishra, R. K. (2012) "Board diversity and corporate performance: The Indian evidence", *IUP Journal of Corporate Governance*, 11(3), pp. 71.
35. Kiel, G. C., and Nicholson, G. J. (2003) "Board composition and corporate performance: How the Australian experience informs contrasting theories of corporate governance". *Corporate Governance: An International Review*, 11(3), pp. 189-205.
36. Lehman, C.M. and Dufrene, D.D. (2008), *Business Communication*, 15th edition, Thomson South-Western, Mason.
37. Levin, D. Z., Whitener, E. M., and Cross, R. (2006) "Perceived trustworthiness of knowledge sources: The moderating impact of relationship length". *Journal of Applied Psychology*, 91(5), pp. 1163.
38. Liang, Q., Xu, P., and Jiraporn, P. (2013) "Board characteristics and Chinese bank performance". *Journal of Banking & Finance*, 37(8), pp. 2953-2968.
39. Masulis, R. W., Wang, C., and Xie, F. (2012) "Globalizing the boardroom - the effects of foreign directors on corporate governance and firm performance". *Journal of Accounting and Economics*, 53(3), pp. 527-554.
40. Miletkov, M., Poulsen, A., and Wintoki, M. B. (2016) "Foreign independent directors and the quality of legal institutions". *Journal of International Business Studies*, pp.1-26.
41. Mishra, R. K. (2016) "Diversity and board effectiveness: A case of India". *Journal of Modern Accounting and Auditing*, 12(3), pp. 165-177.
42. Müller, V. O. (2014) "The impact of board composition on the financial performance of FTSE100 constituents". *Procedia-Social and Behavioral Sciences*, 109, pp. 969-975.
43. Oxelheim, L., and Randøy, T. (2003) "The impact of foreign board membership on firm value". *Journal of Banking & Finance*, 27(12), pp. 2369-2392.
44. Oxelheim, L., Gregorić, A., Randøy, T., and Thomsen, S. (2013) "On the internationalization of corporate boards: The

- case of Nordic firms". *Journal of International Business Studies*, 44(3), pp. 173-194.
45. Pfeffer, J., and Salancik, G. R. (2003) "The external control of organizations: A resource dependence perspective". Stanford University Press.
 46. Post, C., and Byron, K. (2015) "Women on boards and firm financial performance: A meta-analysis". *Academy of Management Journal*, 58(5), pp. 1546-1571.
 47. Pugliese, A., Minichilli, A., and Zattoni, A. (2014) "Integrating agency and resource dependence theory: Firm profitability, industry regulation, and board task performance". *Journal of Business Research*, 67(6), pp. 1189-1200.
 48. Randøy, T., and Nielsen, J. (2002) "Company performance, corporate governance, and CEO compensation in Norway and Sweden". *Journal of Management and Governance*, 6(1), pp. 57-81.
 49. Randøy, T., Thomsen, S., and Oxelheim, L. (2006) "A Nordic perspective on corporate board diversity", *Age*, 390 (0.5428).
 50. Rhoades, D. L., Rechner, P. L., and Sundaramurthy, C. (2000) "Board composition and financial performance: A meta-analysis of the influence of outside directors". *Journal of Managerial issues*, pp. 76-91.
 51. Rose, C. (2007) "Does female board representation influence firm performance? The Danish evidence". *Corporate Governance: An International Review*, 15(2), pp. 404-413.
 52. Rose, C., Munch-Madsen, P., and Funch, M. (2013) "Does board diversity really matter? Gender does not, but citizenship does". *International Journal of Business Science and Applied Management*, 8(1), pp. 15-27.
 53. Rose, M. (2015). "The impact of board diversity in board compositions on firm financial performance of organizations in Germany". (Bachelor's thesis, University of Twente).
 54. Ruigrok, W., and Kaczmarek, S. (2008) "Nationality and international experience diversity on the UK boards of directors: performance implications".
 55. Schmidt, F. L., and Hunter, J. E. (2014) "Methods of meta-analysis: Correcting error and bias in research findings". Sage Publications.

56. Stolk, D. H. (2011) “Demographic diversity in the boardroom and firm financial performance”. Erasmus University.
57. Talarico, A. C. (2013) “The relationship between board of director's nationality diversity and financial performance”. (Doctoral dissertation).
58. Temple, P., and Peck, S. (Eds.). (2002) “Mergers and acquisitions: Performance consequences”. *Routledge*.
59. Ujunwa, A., Okoyeuzu, C., and Nwakoby, I. (2012) “Corporate board diversity and firm performance: Evidence from Nigeria”. *Revista de Management Comparat International*, 13.
60. Ustun, U., and Eryilmaz, A. (2014) “A research methodology to conduct effective research syntheses: Meta-analysis”. *Egitim ve Bilim*, 39(174).
61. Van den Berg, S. (2015) “Nationality diversity of the board of directors and the level of earnings management”.
62. Van Essen, M., van Oosterhout, J. H., and Carney, M. (2012) “Corporate boards and the performance of Asian firms: A meta-analysis”. *Asia Pacific Journal of Management*, 29(4), pp. 873-905.
63. Yermack, D. (1996) “Higher market valuation of companies with a small board of directors”. *Journal of Financial Economics*, 40(2), pp. 185-211.

Appendix 1

Studies Included in Meta-Analysis

1. Ameer & Ramli (2010)
2. Arnegger & Hofmann (2014)
3. Barako & Brown (2008)
4. Choi & Sul (2012)
5. Darmadi (2010)
6. Diepen (2015)
7. Engelen & Van Den Berg (2012)
8. Frias-Aceituno & Rodriguez-Ariza (2013)
9. Garcia-Meca & Martinez-Ferrero (2015)
10. Hafsi & Turgut (2013)
11. Herdhayinta (2014)
12. Honing (2012)
13. Masulis & Wang (2012)
14. Müller (2014)
15. Oxelheim & Gregoric (2013)
16. Randøy & Nielsen (2002)
17. Rose (2015)
18. Stolk_Malaysia (2011)
19. Stolk_Netherlands (2011)
20. Talarico (2013)
21. Van Den Berg (2015)