To what extent does gender diversity on a board of a company listed on the S&P 100 and FTSE 100 affect the firm's performance: A comparative study

Julian Moser
University of Twente
P.O. Box 217, 7500AE Enschede
The Netherlands

ABSTRACT

Gender diversity on the corporate board has become a major topic in corporate governance also due to society, the government and academic research. Because there are a lot of theoretical arguments that support that female directors improve the companies' performance, there are inconsistent empirical conclusion in recent research. Especially in European countries differ the empirical findings, while in US studies the findings appear to be consistent. This paper uses and compares data from listed companies on the S&P 100 and FTSE 100 in 2013. A two-stage least-square (2SLS) estimation will be applied to test if there is a positive impact of female directors on corporate performance. The sample shows that every company has at least one female director on the board. However the findings imply that there is no impact of gender diversity on corporate performance in that sample. It can be argued that there is no impact regardless of the geographically location of the company. This paper gives some suggestions for future research for this emerging topic.

Supervisors:

Dr. X. Huang

Prof. Dr. R. Kabir

H. C. Van Beusichem

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1. INTRODUCTION

The corporate governance determines how a corporation is guided and controlled (Duchin, Matsusaka and Ozbas, 2008). Furthermore it determines the responsibilities and rights between the members of the organization, such as the manager, creditors, shareholders etc. It monitors the actions, policies and decisions of the company and tries to fulfill all the stakeholder interests (Aguilera et al., 2006). Corporate governance consists of different mechanism such as ownership structure, board structure, compensation structure etc. (Aguilera et al., 2006; Carson, 2002).The task of the board of directors of a company has to make sure that the company is able to achieve their goals. The members of the board are usually elected by the shareholders. The board has the duties of selecting, monitoring, reviewing the chief executive, setting broad goals and objectives, setting salaries and compensation of the management etc. (Carson, 2002; Jungmann, 2006). Directors are the link between the shareholders and the management. However every board structure is different. They are different in the type (one-tier vs. two-tier), size (large vs. small) and composition (internal vs. external) (Gillette, Noe and Rebello, 2008).

Gender diversity and equal treatment of both genders is not only a political topic, but also a strategic issue for organization. For example do some institutional investors see a diverse board as an important criterion of the investment policy and it is also a listing condition in the FTSE4Good or Domini 400 Social Index (Carter et al. 2003). Gender diversity might also be important for stakeholders. Powell (1999) wrote that stakeholder see gender diversity as an indication for a caring and socially oriented organization with higher aspirations. Burke (1994) found out that male CEOs say that female directors make a positive and unique contribution within the board. When the topic of the impact of board structure on firm performance arises, most studies focus on independent directors due to the underrepresentation of women on the board. Prior studies investigated whether boards have a token women, which means only a single woman on the board (Kanter, 1977). With the rising social pressure and effort by the government the number of female directors increased. The awareness of the topic increase because there were a lot studies nowadays that found a positive impact of women on the corporation. They also tried to measure the impact of true gender diverse board. Only a few studies found an empirical positive impact of female directors on corporate performance.

However despite the rising representation and a few positive results of women on the board, their true impact is still unclear. The empirical evidence is inconsistent. For example Norway requires listed companies to reserve 40% of boards' seats for women and Ahern and Dittmar (2011) found out that the firms that were forced to comply had a substantial value loss. Similar studies in other countries found out that gender diversity has no impact (Farrell and Hersch, 2005) or a positive impact (Carter, Simkins and Simpson, 2003).

Current literature on the impact of female directors on firm performance is rather thin. Especially in the case of European firms. This paper will be an investigation about the impact of gender diversity on companies performance listed on the S&P 100 and the FTSE 100 to find whether firm performance is linked to female directors despite differences in board characteristics and firm attributes across countries. The companies in these two countries differ in firm characteristics (such as size, age etc.) as well as board characteristics (size, composition etc.). These differences might influence the impact of female directors on firm performance. In order to take these differences into account a comparative study will be conducted, to test whether the impact of female directors differ between two different countries. In contrast to similar studies this paper takes the joint endogeneity into consideration. This means that a correlation between board gender diversity and firm performance does not mean there is a causality (Carter et al., 2003). The causality can go both ways, which means that female directors might influence firm performance and profitable firms may select female directors. Therefore a two-stage least-square (2SLS) equation will be applied.

The S&P 100 is a US stock market index and contains the 100 leading companies maintained by Standard and Poor's. The FTSE 100 is a stock index for the London stock exchange and lists 100 companies with the best market capitalization. In order to investigate this topic a multivariate regression analysis will be conducted. Unlike some European countries like France and Norway, the USA does not have a mandatory percentage of women on the board. According to the Catalyst report (2012) US companies have the fifth highest percentage of women on the board among the 45 economically advanced countries though. On average S&P 100 companies had a board of 12 directors with a representation of 19.9% (2.4) women on the board in 2012 (Fenwick, 2013). Compared to 2012, in 1996 there were only 10.9% (1.4) women on the board. In the UK the percentage of women on the board in firms on FTSE 100 is 21.6% in 2012 (Catalyst, 2012). However the Department for Business Innovation and skills (BIS) has set a target of 25% of female representation on the board by 2015 (Davies, 2011). Furthermore the European Union proposed recently a 40% target of women on the board by 2020 for all listed firms (European Union, 2012).

The data of the S&P 100 and FTSE 100 indicate no statistically significance between female directors and firm performance regardless of the geographically location. However it is a good starting point for future research which should expand the variables, focus on longitudinal and panel data, measure the impact of women on more than just the firm performance and the individual characteristics between male and female.

To answer the question a review of the recent literature will be conducted. This review investigates the different board types, the impact of different board structures and the different tasks of the board. After that the hypothesis will be developed and it will be explained how it is going to be measured. Than the data will be analysed. The analyses contains a correlation and a two-stage least-square test. Then a conclusion will be drawn with suggestions for future research.

2. BOARD STRUCTURES

First of all the different types of board structures will be introduced. After that the board structure of companies located in the USA will be stressed.

2.2 Board Types and its Characteristics

The board structure of companies varies across the world. Gertner and Kaplan (1996) said that it is very difficult to measure the input of the different board structures on corporate performance, because there are many different factors affecting it. For example Gillette et. al (2008) identifies different factors, such as social factors, legal

systems and economic factors. Hermalin and Weisbach (2001) and Duchin, Matsusaka and Ozbas (2008) state that the board structure is endogenous. That means that the board structure affects the companies' performance and vice versa. Different types of board structures are notable. The boards differ in type, size and composition (Gillette et. al, 2008).

The type of the board can be either one-tiered or two-tiered boards. Gillettte et.al (2008) explains that the one-tiered board consists of the executive and non-executive directors which are directly selected by the shareholders. The two-tiered board consists of an insider managerial board and an outsider supervisory board. The supervisory board consists of shareholder and labor representatives. The supervisory board elects/dismisses members of the managerial board and monitors them (Jungmann, 2006). The two-tier structure is common in Germany, Austria and the Netherlands. Moreover two-tiered boards tend to have a "high-powered large outside investor or lead bank" (Gillette, p.3, 2008).

Another differentiation of the board is its' size. Klein (1998) argues that big companies have large boards. Often large boards are more likely to be divided into committees. Different responsibilities are delegated to a committee, so that a small group can concentrate on fewer tasks to make the job more efficient.

The third differentiation of the board structure is its' composition. Fu and Yu (2008) and Klein (1998) identify that directors can be classified as insiders, outsiders and affiliates. Insiders are employees of the company. Outsiders are people that have no material relationship or own shares of the company. Affiliates are people that are somehow related to the company but not currently employed, such as former employees, or relatives of the top management (Klein, 1998) etc. Considering the shareholders' interests of monitoring the manager, Duchin, Matsusaka and Ozbas (2008) and Fu and Yu (2008) argue that outside directors are positive related to monitoring the manager and corporate governance mechanism. Therefore many companies tend to increase their number of outside directors. A part of the board composition is gender diversity. Companies differ in the number of female director represented on their board of director (Rose, 2007). Based on data from US firms it will be argued that a higher number of female directors have a positive impact on firm performance, measured as from both Tobin's q and ROA (Carter et al., 2003; Erhardt and Werbel, 2003). Adams and Ferreira (2004) add that companies with fewer female directors have a more volatile stock price.

2.3 The Tasks of the Board of Directors

In the following the different tasks of the board of directors will be investigated. It will only be concentrated on the main tasks of the board of directors. The overall task is to take care of the business and overall affairs of the company. Therefore they set policies and principles for the management (Jungman, 2006). Large companies delegate responsibilities and functions to smaller committees to mitigate communication problems and bad decision making due to lack of expertise (Klein, 1998). When the board comes up with new plans or ideas etc. they make a collective voting on whether they want to execute the new plan or not. If the majority votes for the new plan they usually take action and execute the plan (Tüngler, 2000).

The board of directors elect the top management (Tüngler, 2000). Usually it is the task of the remuneration committee (Carson, 2002). Furthermore the board has the duty to monitor and evaluate the management. The board has to monitor and evaluate the management, because they might pursuit their own interests instead of the interest of the company (Fu and Yu, 2008; Jungmann, 2006; Tüngler, 2000, Klein, 1998; Sharpe, 2010). Large firms delegate the monitor and evaluation responsibilities to an audit and execution committee (Klein 1998).

Another task is to review the financial plans and to set a long-term investment policy. Boards set up a finance committee as stated by Tüngler (2000) and Fama and Jensen (1983). The finance committee sets financing policies and procedures. Furthermore they give advice about dividend payments and corporate finance (Fama and Jensen, 1983).

In general the board has a variety of different tasks. Different structures affect the performances of the task, for example in terms of information gathering/sharing (Agrawal and Knoeber, 1996). Next it will be discussed which effects certain board structures have, what investors value and how you can link those two.

2.4 Board Structures and Corporate Performance

In the following it will be investigated how different board structure characteristics affect the corporate performance. It will be concentrated of diversity and composition of the board.

Outside directors are often people with an academic background knowledge. Therefore they understand how to efficiently monitor the managers. In order to align the interests of the managers and the shareholders companies need to have less information asymmetry and higher incentive to monitor the managers (Das, 2014; Agrawal and Knoeber, 1996; La Porta et al., 2000; Fields et al., 2012; Goldstein, 2011; Sharpe, 2010). A company with less information asymmetry would result in higher monitoring and information costs. Furthermore companies with higher incentive to monitor are more profitable (Das; 2014; Agrawal and Knoeber, 1996). Therefore investors value firms with outside directors and independent boards. Gillete, Noe and Rebello (2008) argue that there is a trade-off between inside and outside directors. While inside directors have better inside information, outside director have better incentives. Furthermore insiders are more self-interested while outsiders are more interested in the companies' performance. There are two committees which primary role is to monitor and compensate the manager. The committees are audit and executive compensation committee. The audit committee reviews the financial statements, audit process and internal accounting controls to minimize the information asymmetry through publishing unbiased accounting information by the manager to the shareholders. The compensation committee regulates the top managements' compensation and gives incentives to align the managers' and shareholders' interests (Klein, 1998). Fields et al. (2012) argue that the board should have a dual role of monitoring and advising the managers.

Dang, Nguyen and Vo (2009) use two theoretical perspectives to describe the impact of women on the board on firm performance. The first perspective is the resource dependency theory developed by Pfeffer (1972). This theory sees a company as an open system which is dependent on the external environment and that corporate boards have the tasks to reduce environmental uncertainty, manage external dependency and reduce the transaction costs (Davis and Cobb, 2009). Furthermore it states that the organization

needs advice and counsel, channels for communicating information with the external environment and legitimacy from the board (Pfeffer and Salancik, 1978). That means that women join a board because they are desirable for their wide base of resources they can offer, such as knowledge, skills, legitimacy, prestige and connections to external sources that reduce the risk of dependency on the external environment (Peterson and Philpot, 2007; Hillman et al., 2007). The other perspective is the agency theory. The agency theory is when an agent (e.g., manager) is enabled to make decision on behalf of the principle (e.g., directors). The problem occurs when the agent takes advantage of that and acts in his own interest rather than the interest of the principle (Das, 2014; Agrawal and Knoeber, 1996; La Porta et al., 2000; Fields et al., 2012; Goldstein, 2011; Sharpe, 2010). As already stated is one of the tasks of the board to monitor and consult the manager to reduce the agency problem. Female directors are supposed to act in the best interest for the shareholder, because they want to protect their reputation as monitoring expertise. Chanavat and Ramsden (2013), Erhardt et al. (2003) and Carter et al. (2003) prove that companies with a gender-divers board outperform companies with a non-diverse board. Therefore it can be argued that women on the board are more active and enhance the monitoring activity.

Beside the theoretical perspective of women, there are also some practical arguments for women on the board. Fairfax (2005) stated that women tend to engage in higher-quality analysis rather than taking extreme position on topics. Adams and Ferreira (2009) also explains that women have a higher attendance at meeting and through only one woman on the board, the overall board has a higher attendance. He found out that women, more likely than men, hold CEO's accountable for a bad financial performance. A gender diverse board is related to better decision-making of the board (Bøhren and Strøm 2007). Furthermore women with senior corporate experience increase the firm performance compared to women with non-corporate backgrounds. Due to the better knowledge and business connection, women with senior corporate experience have better monitoring capabilities (Chanavat and Ramsden, 2013).

It is important to have directors with different cognitive pattern. The different pattern help the company make better decisions in terms of expanding the business. Women and men have different cognitive pattern and therefore are more likely to differ in beliefs, norms and behavior (Pelled et al. 1999). The different cognitive pattern help to create a broader view on different options and solutions, which results into better decision-making of the company (Konrad et al. 2008). It appears that larger boards are more gender diverse. However too big boards are less efficient at monitoring (Jensen, 1993). It will be argued that firm performance and board size are inversely correlated (Yermack, 1996; Eisenberg, Sundgren and Wells, 1998)

Smith, Smith and Verner (2006) summarize the positive aspect of gender diversity: first, women may bring more creativity and increase the quality through understanding the market better than men. Second, gender diversity enhances the reputation of the company and therefore may improve the firm performance. Third, it may be possible that the external talent pool increases as soon as women have executive positons. Furthermore it is proven that women in top position positively influence the career development of women in lower position and therefore enhance the firm performance indirectly.

There are also some conflicting views about women on the board. For example McCahery and Vermeulen (2013) argue that companies with more women on the board take more risky decisions. In contrast Byrnes et al. (1999) states that women might avoid risky projects because they are more financial risk-averse.

2.5 Board Structure in the USA and UK

In the following the typical board structure of companies within the USA will be investigated.

There are no legal requirements that determine how the board structure should be set up (Tüngler, 2000). Companies in the USA have a one-tier board and it prevails a common law system (Gillettte et.al, 2008). Furthermore the USA is a market-centered system, where companies get their finances through a large number of investors (La Porta et al., 2000). The ownership of a company is usually widely dispersed, therefore companies are not having concentrated individual blockholders or are dominantly family owned (Hall and Soskice, 2001; Streeck and Yamamura, 2001; Grit Tüngler, 2000). Around 60% of the equity market is controlled by institutional owners. The largest are investment companies and investment advisors (Binay, 2005). On average they meet around six to seven times a year (Tüngler, 2000). Even though statutes don't allow to set-up committees, many companies still established executive, finance, nominating, audit and compensation committees (Carson, 2002). Companies increased the number of independent directors and this is seen as good governance practice, especially in situations where the shareholders do not have a big impact on decision-making (Tüngler, 2000; Gillette, Noe, and Rebello, 2008). Tüngler (2000) and Gillette, Noe, and Rebello (2008) state that companies listed on the New York Stock Exchange need to have at least two independent directors. Furthermore they are required to have a separate audit committee, which consists only of independent directors. Higgs (2003) found out that around 80% of the time the CEO of the company is also the chairman of the board. This complicates the monitoring process of the manager. The top management compensation includes usually salaries and bonuses. Stocks or stock options are not typical. Moreover the total compensation of managers is about seventeen times higher than the average workers' salary (Bradley et al., 1999).

In the UK a single-tier board structure prevails (Higgs, 2003).The institutional context is different. The UK follows a comply-or-explain system of corporate governance which means that the government regulator sets out a code. The so called combined code covers a variety of principles of good corporate governance. The listed companies can choose whether to follow the code or not. If they don't they have to explain it publicly why they do not follow the code (Greenbury, 1995; Hampel, 1998). The code was published in "*Combined Code: Principles of Good Governance and Code of Best Practice"* (London Stock Exchange, 1998). The most relevant topic are the following: there should be a clear division of responsibilities on top of the company, so that not one single individual has the power to make decisions. If the chairman and chief executive officer should be the same person, this has to be publicly justified. Whether or not this is the case, there has to be an independent and non-executive director who can be consulted in case of concerns. The non-executive directors should be involved in developing proposals on strategy. It should be ensured that the board has a balance of knowledge, skills, independence and experience. All directors should be considered for re-

election. There should be a remuneration committee, consisting of non-executive directors, to maintain the quality of directors. The board should establish an audit committee which consists of at least three non-executive directors. The audit committee has to make a clear statement about their authority and duties. There should be a dialogue with the shareholders to ensure the mutual understanding of the objectives. The whole board has to make sure that the dialogue with the shareholders is satisfying.

Higgs (2003) was appointed by the UK government to review the effectiveness of non-executive directors. In his review he made some suggestions for the code. He also noted that the number of women on the board is very low. However it is not expected that the combined code will adjust to the low women percentage (Li and Wearing, 2003).

According to Armour and Skeel (2007) the combined code is the reason that the boards of UK firms are less staggered compared to US firms. Staggered boards are boards where only a part of directors are elected each time. Staggered boards make hostile takeovers more difficult.

3. HYPOTHESIS DEVELOPMENT

Throughout the literature review the hypothesis that female directors have a positive impact on firm performance was developed. The hypothesis will be tested in this paper. The opinions about whether female directors make an impact of researchers throughout the last decade are still different. However this paper tries to give further proof to the current literature that woman enhance the firm performance.

Gender diversity is a debated issue even though there are many advantages of having women on the board. Especially cross-country comparisons seem to differ. But it has to be considered that USA and parts of continental Europe have different board structures, in terms of separate supervisory and executive boards (Singh and Vinnicombe, 2003). Predominantly studies in the US show a positive impact of gender diversity on the board on the ROA, ROI (Erhardt, Werbel and Shrader 2003), and the financial performance measured by Tobin's q (Carter et al. 2003). Frink et al. (2003) suggests that there should be an optimal number of women on the board. He developed an inverted U-shape to display this optimum. US studies seem to be positive. However non-US studies, for example conducted by Ahern and Dittmar (2011) in Norway, where companies must have a women percentage of 40%, prove that their performance is worse. Another inconsistent example is that Rose (2007) found in Danish listed firms no significant relationship between a diverse board and the companies' performance measured by Tobin's q. In contrast Bøhren and Strøm (2007) made a study in Norway and found a significant negative impact of a gender diverse board on Tobin's q.

In general the following hypothesis will be investigated:

H1: *Female directors will have a significant positive effect on firm performance.*

Board gender diversity can be seen as an indicator for good corporate governance. This might attract new job applicants and new talents outside the usual circle. Furthermore it might attract different new ethnic groups which might feel, just like women, as a minority on the job market. They feel like they are not excluded and that the firm only hires according to the applicants skills and knowledge. Another positive point about a gender diverse board is the perception of the stakeholder. Through the perception of a good corporate governance, the company increases its' reputation and attract suppliers, consumers and investors (Bear et al., 2010). Williamson (1975) argues that firms with a good reputation might safe the costs of writing complete contracts, because suppliers and contractors spend less cost on monitoring activities and are more willing to engage in a contract with the firm. A gender diverse board structure might also increase the general competence of the board. People that might be excluded on some board are together with different perspectives, ideas and background knowledge (Alvarez and McCaffery, 2000). Board gender diversity may also enhance global relationships between companies. Higher diversity is an indicator for a broader view on decision making through a stakeholder orientation rather than just maximizing shareholders' value (Rose, 2007).

4. METHODOLOGY

The hypothesis will be tested in companies that are included in the S&P 100 and FTSE 100. This paper takes data from the biggest companies around the world. This is because the bigger companies are more aware of corporate governance due to the fact that they are more exposed to the public.

For the US sample companies from the S&P 100 index in 2013 will be used. S&P 100 lists the 100 biggest companies listed in the USA and therefore account for a large output of the US economy. The companies were evaluated by the rating agent Standard & Poor. That means we have the data of 100 US firms. The data includes famous companies like Google, Apple, Facebook, Ebay and Amazon. The data collected will be from the end of 2013 and the units is in million US$.

For the UK sample companies from the FTSE 100 index in 2013 will be used. The FTSE 100 lists the 100 companies with the best market capitalization on the London stock exchange. Therefore it also accounts for a major output of the UK economy. The data that will be collected is from the end of 2013 and the units is in million US$ that a comparison is possible.

The data will be gathered from the database of ORBIS, REACH and the University of Twente library. All databases have a wide range of different data sets about listed companies on the NYSE and FTSE. The data sets contain different kinds of financial and non-financial information which can be used in this study. The data for the board size and the number of female directors will be taken by hand through reading the companies' annual report.

In order to test the hypothesis a multivariate regression analysis will be conducted. The main problem of studying the impact of corporate boards on firm performance is that a correlation does not imply causality. That means that the causality can mean a high number of female directors lead to a better firm performance or a better firm performance leads to a more gender diverse board (Carter et. al., 2003; Hermalin and Weisbach, 2003; Marinova *et al.* 2010,). Therefore it can imply a joint endogeneity of the variables. Hermalin and Weisbach (2003) state that the most relationships of board characteristics and firm performance are jointly endogenous. If this is the case an ordinary least square estimator is not efficient (Gujarati & Porter, 2009). To take this joint endogeneity into account, a two-stage least-square (2SLS) estimation will be applied. A lot of previous studies did not take this joint endogeneity into account. Therefore it exists a high risk that the results are biased.

The following equation will be taken from Carter et al. (2003):

$$\textbf{Firm Performance}_i = \beta 0 + \beta 1\ \textbf{Board Gender Diversity}_i + \sum \beta x + e_i$$

$$\textbf{Board Gender Diversity}_i = \alpha 0 + \alpha 1\ \textbf{Firm Performance}_i + \sum \alpha z + u_i$$

Where i refers to the company, x and z are the control variables.

The dependent variable is the firm performance. There are different ways to measure firm performance. One is to use financial statement ratios (e.g. ROI, ROA etc.). The other is to use market-based like Tobin's q and portfolio returns. Rose (2007) argues that accounting based measures depend on the asset-valuation method. He concludes that Tobin's q should be used to measure performance due to its easy interpretation. Demsetz and Villalonga (2001) make the argument that accounting measures reflect the past, while Tobin's q reflect the future performance. Tobin's q is the ratio of the market value of a firm and the replacement value of its assets. Perfect and Wiles (1994) argue that it is too difficult to collect data for the replacement value. Therefore they came up with alternative equation to determine Tobin's q: $(TA_{BV} + EQ_{BV} + EQ_{MV})/ TA_{BV}$. TA_{BA} are the book value of the total assets. EQBV is the book value of the equity which is measured through the value of the common stocks. EQ_{MV} is the market value of the equity, which will be measured through the market capitalization. It is easier to collect the data for this equation. Perfect and Wiles (1994) found that the result of their equations are a bit different, but the differences are not statistically significant.

The independent variable is the number of female director representation on corporate boards. Female representation on the board can be measured in two ways: first we can calculate the percentage of women on the board. The second way is to create a dummy variable which has the value "1". Every company that has at least one female director gets that value assigned. If there is no woman on the board than the company gets a "0" assigned. Carter et al. (2003) and Dezső and Ross (2012) used the same measure. In this paper I take the total number and the percentage of female directors on the board. The information about the gender of directors can be taken from the financial reports or by searching on the homepage of the companies. It can be checked by looking at the first name of the director.

The control variables are board size, firm size and firm age. The board size is measured through the number of directors on the board (Yermack, 1996). Even though it can be argued that bigger boards have more people with different expertise and information, Jensen (1993) found out that more directors have higher coordination costs which influences their effectiveness. Studies from Yermack (1996) and Eisenberg et al. (1998) support that view and argue that board size has a negative influence on corporate performance. Firm size can be measured through the net sales of a company (Adams and Ferreira 2009) or its' assets (Hambrick and Cannella 2004). According to Kaen and Baumann (2003) the best way of measuring firm size is through the number of employees. Firm age will be measured through the date of their initial public offering.

5. RESULTS

5.1 Statistic Description of Variables

Table 1 displays the three panels of descriptive statistics for the two samples. All panels contain information about the minimum, maximum, mean and standard deviation of the key variables. Panel A contains the data of the S&P 100 firms. Panel B provides the data for the FTSE 100 firms and panel C shows the significance of the difference between the two samples.

Table 1. ***Descriptive statistics***

Panel A (N = 100) S&P 100

	Minimum	Maximum	Mean	Standard Deviation
Tobin's q	1,01	4,24	2,1780	,78883
Employees (#)	4619	2200000	134657,110	233464,36609
Board size	8,00	17,00	12,0100	1,77807
Women on the Board (1/0)	1	5,00	2,5300	,97913
Women on the Board (%)	,07	,45	,2092	,07803
IPO	1892	2013,00	1979,8700	26,50125

Panel B (N = 100): FTSE 100

	Minimum	Maximum	Mean	Standard deviation
Tobin's q	1	4,27	1,9894	,78776
Employees (#)	410	629135	60125,6	95109
Board size	7	19	11,2	2,4944
Women on the Board (1/0)	1	5	2,42	1,0653
Women on the Board (%)	,07	,44	,2156	,07997
IPO	1938	2013	1988,63	21,096

Panel C (N=200): significance of the difference

Mean Comparison	T	Sig.
Tobin's q S&P 100 - Tobin's q FTSE 100	1,268	,208
Board size S&P 100 - Board size FTSE 100	2,891	,005
Women on the board S&P 100 (1/0) –Women on the board FTSE 100 (1/0)	,883	,380
Women on the board S&P 100 (%) –Women on the board FTSE 100 (%)	-,625	,533
Employees (#) S&P 100 - Employees (#) FTSE 100	3,261	,002
IPO S&P 100 - IPO 100	-2,647	,009

The variable Tobin's q shows no significant difference at the 5% level between the two samples. The average Tobin's q for the S&P 100 sample is 2.18 with a standard deviation of 0.79 and for the FTSE 100 sample is 1.99 with the standard deviation of 0.79.

The number of employees is used as a measure for the size of the companies. The S&P 100 companies have on average 134.66 employees, while the FTSE 100 companies are smaller with an average of 60.13 employees. However the standard deviation for the S&P 100 companies is 233.46, while for the FTSE 100 companies just 95.11. This means there are more extremes in the S&P 100 sample which leads to a higher average. The difference of the means is statistically significant at the 5% level.

The board size is measured through counting up the amount of seats on a board. The board size of the S&P 100 companies is on average 12, while the average of the board size for the FTSE 100 companies is 11.

The date of the initial public offering is used as a measure for the age of the company. Companies on the S&P 100 seem to be older as their average IPO date is 1980. In contrast the average IPO date for the FTSE 100 companies is 1988. The difference of the means is statistically significant at the 5% level.

5.2 Facts about Women on the Board and Their Impact

Table 1 also shows the statistic description of women on the board for the S&P 100 and FTSE 100. The table shows the average number of female directors and also the average percentage of female directors on the board.

The S&P 100 companies have an average of 2.5 women on the board. The average of the FTSE 100 companies is not really different, they have an average of 2.4 women on the board. However the percentage of women directors on board in a company of the S&P 100 is 20.92%, while the percentage of female directors in companies on the FTSE 100 is with 21.56% slightly higher. Both samples have a standard deviation around 1. Compared to the catalyst report in 2012 the numbers have not changed much. According to the Catalyst report (2012) and Fenwick (2013) the female director percentage in 2012 on the S&P 100 was 19.9% and on the FTSE 100 21.6%. Both the absolute number and percentage of female directors between the two sample means are not statistically significant at the 5% level.

It is notable that every company of both samples have at least 1 female director on the board.

Table 2: ***Correlation matrix***

Panel A: S&P 100 (N = 100)

	Tobin's q	Board size	women on the board (1/0)	Women on the board (%)	Employees (#)
Tobin's q	1	-,136	,078	,166	-,005
Board size	-,136	1	,351**	,020	,249*
Women on the board (1/0)	,078	,351**	1	,915**	,290**
Women on the board (%)	,166	,020	,915**	1	,166
Employees (#)	-,005	,249*	,290**	,166	1

Panel B: FTSE 100 (N = 100)

	Tobin's q	Board size	women on the board (1/0)	Women on the board (%)	Employees (#)
Tobin's q	1	-,146	-,065	-,035	-,149
Board size	-,146	1	,485**	,025	,120
women on the board (1/0)	-,065	,485**	1	,866**	,139
Women on the board (%)	-,035	,025	,866**	1	,076
Employees (#)	-,149	,120	,139	,076	1

**. Correlation significant at the 0,01 level.

*. Correlation significant at the 0,05 level.

Table 2 shows the correlation between the key variables of the two samples. For the S&P 100 countries there seems to be that both absolute (0.08) and the percentage of female directors (0.17) had a positive correlation with Tobin's q. Both coefficient suggest that when the number (1/0 and %) of female directors increase than Tobin's q increases as well and vise versa. However this relationship appears to be very weak due to the low coefficient. Furthermore they have a positive correlation with board size and employees. For the FTSE 100 it is different. It appears that both absolute (-0.07) and the percentage of female directors (-0.04) have a negative correlation with Tobin's q. That means that an increase in the number of female directors results in a decrease of firm performance. The coefficients are close to zero and therefore it can be concluded that this relationship is very weak till not existent. The correlation with board size and employees is positive though.

Despite the theoretical positive impact of women on the performance of a company, many boards still seem to be dominated by man. According to the mass theory (Kanter, 1977; Granovetter, 1978) the interaction and influence of a group depends on size. According to Konrad et al (2008) there have to be at least three women directors on the board to make an impact on corporate performance.

Table 3: ***Comparison of companies with at least 3 female directors to companies without***

Panel A (N=100): S&P 100

	Mean for companies with less than 3 female directors (N=54)	Mean for companies with at least 3 female directors (N=46)	T	Sig. (2-seitig)
Tobin's q	2,085	2,284	1,209	,230
Board size	11,555	12,544	2,868	,005
Employees (#)	88375,3333	188987,8913	2,042	,046

Panel B (N=100): FTSE 100

	Mean for companies with less than 3 female directors (N=54)	Mean for companies with at least 3 female directors (N=46)	T	Sig. (2-seitig)
Tobin's q	1,993	1,985	-,047	,963
Board size	10,403	12,500	4,451	,000
Employees (#)	53123,290	71535,711	,939	,350

Table 3 shows the different means of the key variables for companies with less than three female directors and companies with at least 3 female directors. For the S&P 100 sample there are 54 companies with less than 3 female director and 46 with at least 3 female directors. The Tobin's q for companies with at least 3 female directors (2.28) is higher than for companies with less than 3 female directors (2.09). However the difference is not statistically significant. The board size is also higher for companies with at least 3 female directors (12.54 compared to 11.55), as well as the number of employees (88375.33 compared to 188987.89). Both differences are statistically significant. For the FTSE 100 sample there are 38 companies with at least 3 female directors and 62 with less than 3 female directors. The mean of Tobin's q for companies with less than 3 female director is just a little bit higher than the mean for companies with at least 3 female directors (1,993 compared to 1.99). The difference is not statistically significant. The average board size (12.5 compared to 10.4),as well as the number of employees (71535 compared to 53123), for companies with at least than 3 female directors is higher than for companies with less than 3 female directors. The difference in board size is statistically significant, the difference in the number of employees is not. So far the results do not comply with the results from Konrad et al (2008). Even though the Tobin's q is higher for companies with at least 3 women of the S&P 100 sample, the difference is not statistically significant.

5.3 Multivariate Analysis: Simultaneous Equation

The following systems of simultaneous equations will be tested:

Tobin's q = $\beta 0 + \beta 1$ Female Directors$_i$ + $\beta 2$ Board Size$_i$ + $\beta 3$ Company Size$_i$ + $\beta 4$ Date Of IPO$_i$

Female directors = $\beta 0 + \beta 1$ Tobin's q$_i$ + $\beta 2$ Board Size$_i$ + $\beta 3$ Company Size$_i$ + $\beta 4$ Date Of IPO$_i$

In table 4 the results for both samples can be seen. A two-stage least-square estimation was applied for both Tobin's q (1.a) and the absolute number of female directors (1.b) and Tobin's q (2.a) and the percentage of female directors (2.b).

Table 4: *Two-stage least-square (2SLS)*

Panel A (N=100): S&P 100

Variables	Tobin's q 1.a	Women on the board (1/0) 1.b	Tobin's q 2.a	Women on the board (%) 2.b
Constant	2,385 (0,365)	11,013 (1,465)	1,524	1,205 (1,884)
Tobin's q		0,152 (1,25)		0,017 (1,622)
Board Size	-0,082 (-1,620)	0,166 (2,918)	-0,061 (-1,275)	0,000 (-0,079)
Firm size	-0,0000001 (-0,022)	0,0000001 (2,082)	-0,0000001 (-0,003)	0,0000001 (1,494)
Firm age	0,000 (0,077)	-0,006 (-1,485)	0,001 (0,162)	-0,001 (-1,655)
Women on the board (%)			1,722 (1,622)	
Women on the board (1/0)	0,114 (1,250)			
R^2	0,037	0,205	0,048	0,088
F	0,829	5,623	1,102	2,1

Panel B (N=100): FTSE 100

Variables	Tobin's q 1.a	Women on the board (1/0) 1.b	Tobin's q 2.a	Women on the board (%) 2.b
Constant	0,458 (0,59)	1,916 (0,203)	0,943 (0,109)	0,695 (0,858)
Tobin's q		0,026 (0,2)		-0,02 (-0,165)
Board Size	-0,045 (-1,2)	0,214* (5,251)	-0,044 (-1,101)	0,001 (0,376)
Firm size	-0,0000001 (-1,311)	0,0000001 (0,835)	-0,0000001 (-0,747)	0,0000001 (0,641)
Firm age	0,001 (0,269)	-0,001 (-0,211)	0,001 (0,159)	0,000 (-0,61)
Women on the board (%)			0,739 (0,121)	
Women on the board (1/0)	0,017 (0,2)			
R^2	0,04	0,249	0,039	0,012
F	0,948	7,469	0,919	0,266

**. Correlation significant at the 0,01 level.

*. Correlation significant at the 0,05 level.

Panel A shows the results for the S&P 100 sample. The coefficient for Tobin's q (1.a) and (2.a) is positive and the r^2 value is 0.037 and 0.048. That means that the variables have no strong prediction relation with Tobin's q. Both estimations of Tobin's q display a negative impact for board size and firm size. This means that the board size and firm size have a negative impact on the firm performance. These findings are in line with the study of Jensen (1993). He found out that bigger boards are less efficient due to their higher coordination cost. The coefficient of firm age is negative for the women on the board. The coefficient for women on the board (2.a) and (2.b) are positive. The R^2 is 0.21 and 0.09. Both have a negative coefficient for firm age. Firm age has a negative effect on firm performance. The results show no statistically significance for the S&P 100 sample.

Panel B shows the result for the FTSE 100 sample. For Tobin's q (1.a) and (2.a) the coefficient is positive and have a R^2 of 0.04 and 0.04. As in the S&P 100 sample, these values are very low, implying that the total variables have no strong prediction relation with Tobin's q. Both show a negative coefficient for board size and firm size. This is the same result as for the S&P 100 sample as well. The women on the board (1.b) and (2.b) coefficient are positive. The absolute number of female directors (1.b) has a R^2 of 0.25. It shows a statistical significant result for board size. Furthermore the coefficient for firm age is negative. Firm age has a negative impact on the absolute number of women on the board. The r^2 for the percentage of female director (2.b) is 0.01 and it shows a negative coefficient for Tobin's q. That implies that the firm performance has a negative impact on the percentage of female directors on the board. Successful companies have a lower female director percentage.

In conclusion there appear to be no relation between female directors and firm performance in both samples. However according to Rose (2007) the results should be interpreted with caution because the sample is limited to listed companies in two countries.

6. DISCUSSION AND CONCLUSION

The purpose of this study was to find out whether women on the board are positive related to firm performance among S&P 100 and FTSE 100 companies. This seems to be a current and modern topic due to the increasing awareness of corporate governance practices in the last decades. The current literature concerning studies in European countries is very thin. However after following the hypothesis that women on the board create value and increase the performance of a company, no statistically significance was found in either sample. But the result does not mean that women are bad for firm performance either. While finding the same results in both samples, this study confirms that female directors do not have a direct relation to firm performance regardless of their geographical location. The difference of the board structure in both countries has been taking into account through testing for joint endogeneity.

Throughout the data collection some limitations were notable. Even though the amount of female directors increased, the amount of female directors on the board is still relatively low. The number of female directors increased from 1.4 (10.9%) female directors in 1996 to 2.4 (19.9%) in 2002. This is an increase of 10%. However this means just on average one more female director on the board. As stated by Konrad et al (2008) there needs to be at least 3 female directors on the board to make an impact on the decision making. As the number of female directors is still low, it is said that female directors stay powerless and lack an influence on the decision making and corporate performance (Nielsen and Huse 2010). Furthermore according to Rose (2007) women adopt the behavior and norms of men. Women have the desire to fit into the men-dominated boardroom and suppress their own features. Rose (2007) calls this a process of socialization. That means that there is supposed to be no impact of women on the board since they try to act and think like men do. Also the representation of women on the corporate board shouldn't be the only measure to analyse the impact of women on corporate performance. Women in higher positions, such as management position, is similarly important. Despite the lack of women in top positions, Dezső and Ross (2012) found a positive relationship between women on the board and firm performance.

This paper is a good stand point for future research. There are more board characteristic and firm characteristics that can be used as a variable to determine the impact of women on firm performance. Women should not be seen as the only impact on firm performance as there are many other variables. Also through the EU proposing to have 40% women representation in 2020, there should be a closer look on women on corporate performance in the next decade. Therefore future research should focus on longitudinal and panel data to avoid the limitations of data in a single year. Furthermore future researches should include non-listed companies. In addition, there could be an accounting-based measure (ROA etc.) or a totally different measure to determine the female director impact on firm performance. For example Bear et al. (2010) and Brammer et al. (2009) found out that a gender diverse board has a positive impact on corporate social responsibility and therefore the firm's reputation. Another lack in current literature is the actual difference of man and women on the dynamics within a board. There needs to be a closer look on risk-propensity between the genders and therefore the director's characteristics. On one hand it will be argued that women are more risk averse (Byrnes et al., 1999). On the other hand women tend to suppress their own features to fit in the boardroom (Rose, 2007).

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8. REFERENCES

1. Adams, R.B., & Ferreira, D. (2009). Women in the Boardroom and their Impact on Governance and Performance. Journal of Financial Economics 94, 291-309.

2. Agrawal, A., & Knoeber, C.R. (1996). Firm Performance and Mechanism to Control Agency Problems between Managers and Shareholders. Journal of Financial and Quantitative Analysis, Vol. 31, No. 3.

3. Aguilera, R. V., Williams, C. A., Conley, J. M., & Rupp, D. E. (2006). Corporate Governance and Social Responsibility: a comparative analysis of the UK and the US. Journal compilation, Vol. 14, No. 3.

4. Ahern, K., & A. Dittmar. (2011). The changing of the boards: The impact on firm valuation of mandated female board representation. Quarterly Journal of Economics, Forthcoming.

5. Alvarez, R. M. & McCaffery, E. J. (2000). Is There a Gender Gap in Fiscal Political Preferences. August 24, California Institute of Technology and University of Southern California.

6. Bebchuk, L.A., Coates, J.C. & Subramanian, G. (2002). The powerful antitakeover force of staggered boards: theory, evidence, and policy. Stanford Law Review, vol. 54(3), pp. 887–951.

7. Binay, M. (2005). Performance attributes of US Institutional Investors. Financial Management, Vol. 34, No. 2.

8. Bøhren, Ø., & Strøm, R.Ø. (2007). Aligned, Informed, and Decisive: Characteristics of Value-Creating Boards. European Finance Association (EFA), Ljubljana.

9. Bradley, M., Schipani, C.A., Sundaram, A.K., & Walsh, J.P. (1999). The Purposes and Accountability of the Corporation in Contemporary Society: Corporate Governance at a

Crossroads. Law and Contemporary Problems, Vol. 62, No. 3.

10. Burke, R.J. (1994), Benefits of Women on Corporate Boards of Directors as Reported by Male CEOs. Psychological Reports 75(1), 329–330.

11. Byrnes, J.P., Miller, D.C., & Schafer, W.D. (1999). Gender Differences in Risk Taking: A Meta-analysis. Psychological Bulletin 125, 367-383.

12. Carson, E. (2002). Factors Associated with the Development of Board Sub-committees. Corporate Governance: An International Review, Vol. 10, Issue 1, pp. 4-18.

13. Carter, D. A., Simkins, B. J., & Simpson, W. G. (2003). Corporate Governance, Board Diversity, and Firm Value. Financial Review, 38, 33-53.

14. Catalyst. (2012). Women on Boards. available at http://www.catalyst.org/file/725/qt_women_on_boards.pdf

15. Chung, K.H., & Pruitt, S.W. (1994). A Simple Approximation of Tobin's q. Financial Management 23, 70-74.

16. Coffee, J. (2000). Privatization and corporate governance: the lessons from securities market failure. Working paper no. 158, Columbia Law School, New York.

17. Coles, J.L., Daniel, N.D., & Naveen, L. (2008). Boards: Does one size fit all? Journal of Financial Economics, 87(2), 329–356.

18. Dang, R., Nguyen, D.K., & Vo, L. (2009). Women on Corporate Boards and Firm Performance: A comparative study. JEL. Classification: G30; G34; J16. Available from: http://events.em-lyon.com/AFFI/Papers/252.pdf

19. Das, P.K. (2014). The role of corporate governance in foreign investments. Applied Financial Economics, Vol. 24, Issue 3.

20. Davies, E. (2011). Women on Boards an Independent Review into Women on Boards. London: Department for Business Innovation and Skills BIS.

21. Davis, G.F., & Cobb, J.A. (2009). Resource dependence theory: Past and future. In S. B. Bacharach (Ed.), Research in the sociology oforganizations. London: Elsevier.

22. Demsetz, H., & Villalonga, B. (2001). Ownership Structure and Corporate Performance. Journal of Corporate Finance 7, 209-233.

23. Dezső, C.L., & Ross, D.G. (2012). Does Female Representation in Top Management Improve Firm Performance? A Panel Data Investigation. Strategic Management Journal forthcoming.

24. Duchin, R., Matsusaka, J. G., & Ozbas, O. (2010). When are outside directors effective? Journal of Financial Economics 96, 195-214.

25. Eisenberg, T., Sundgren, S., & Wells, M.T. (1998). Larger Board Size and Decreasing Firm Value in Small Firms. Journal of Financial Economics, 48,1, 35–54.

26. Erhardt, N.L., Werbel, J.D., & Shrader, C.B. (2003). Board of Director Diversity and Firm Financial Performance. Corporate Governance: An International Review 11, 102-111.

27. European Union. (2012). Women in economic decision-making in the EU: progress report. A Europe 2020 initiative. Commission Staff Working Document, Luxembourg.

28. Fairfax, L.M. (2005). Bottom Line on Board Diversity: A Cost-benefit Analysis of the Business Rationales for Diversity on Corporate Boards. Wisconsin Law Review 795, 831-837.

29. Fama, E.F., & Jensen, M.C. (1983). Separation of Ownership and Control. Journal of Law and Economics. Vol. 26, No.2, pp. 301-325.

30. Farrell, K.A. & Hersch,, P.L. (2005). Additions to corporate boards: the effect of gender. Journal of Corporate Finance,11, 85-106.

31. Fenwick. (2013). Gender diversity in Silicon Valley. available at http://www.fenwick.com/FenwickDocuments/Gender_Diversity_Survey_2013_Proxy_Season_Results.pdf.

32. Fields, L.P., Fraser, D.R., & Subrahmanyam, A. (2012). Board quality and the cost of dept capital: The case of bank loans. Journal of Banking & Finance 36, 1536-1547.

33. Frink, D.D., Robinson, R.K., Reithel, B., Arthur, M.M., Ammeter, A.P., Ferris, G.R., Kaplan, D.M., & Morrisette, H.S. (2003). Gender Demography and Organization Performance: A Two-study Investigation with Convergence. Group and Organization Management, 28,1, 127–147.

34. Fu, H., & Yu, X. (2008). Is board structure one-size-fits-all? The unintended informational consequences of the Sarbanes-oxley act. Available from Social Science Electronic Publishing.

35. Gertner, R. & Kaplan, S. (1996). The Value-Maximizing Board. Working Paper, University of Chicago and NBER.

36. Gillette, A.B., Noe, T.H., & Rebello, M.J. (2008). Board structures around the world: An experimental investigation. Review of Finance, 93-140.

37. Goldstein, M. (2011). A State of Engagement between U.S. Corporations and Shareholders: A Study Conducted by Institutional Shareholder Services for the Investor Responsibility Research Center Institute. IRRC Institute.

38. Granovetter, M.S. (1978). Threshold Models of Collective Behavior. American Journal of Sociology 83, 1420-1443.

39. Greenbury, R. (1995). Directors remuneration: report of a study group chaired by Sir Richard Greenbury. Confederation of British Industry, London.

40. Hall, P.A. & Soskice, D. (2001). Varieties of Capitalism: The Institutional Foundations of Comparative Advantage. Oxford: Oxford University Press.

41. Hambrick, D.C., & Cannella, A.A. (2004). CEOs Who Have COOs: Contingency Analysis of an Explored Structural Form. Strategic Management Journal 25, 959-979.

42. Hampel, S.R. (1998). Committee on corporate governance. GEE, London.

43. Hermalin, B.E., & Weisbach, M.S. (2001). Boards of Directors as an Endogenously Dertermined Institution. Economic Policy Review, Vol. 9, No. 1.

44. Hillman, A.J., & Dalziel, T. (2003). Boards of directors and firm performance: Integrating agency and resource dependency perspectives. Academy of Management Review, 28(3), 383–396.

45. Higgs Review. (2003). Review of the role and effectiveness of non-executive directors. London: Department of Trade and Industry.

46. Jensen, M.C. (1983). Organisation theory and methodology. The Accounting Review, LVIII(2), 319–333.

47. Jensen, M.C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. American Economic Review, 76, 323–329.

48. Jensen, M.C. (1993). The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems. The Journal of Finance, 48,3, 831–880.

49. Jungmann, C. (2006). The Effectiveness of Corporate Governance in One- Tier and Two- Tier Board systems. European Company and Financial Law Review, Vol. 3, No. 4.

50. Kaen, F., & Baumann, H. (2003). Firm size, employees and profitability in US manufacturing industries.

51. Kanter, R.M. (1977). Men and women of the corporation. Basic Books, New York.

52. Klein, A. (1998). Firm performance and boar committee structure. Journal of Law and Economics, Vol. 41, pp. 275-304.

53. Konrad, A.M., Kramer, V., & Erkut, S. (2008). The Impat of Three or More Women on Corporate Boards. Organizational Dynamics 37, 145-164.

54. La Porta, R., Lopez-de-Silances, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. Journal of Financial Economics 58. 3-27.

55. London Stock Exchange. (1998). The Combined Code: Principles of Good Governance and Code of Best Practice. London: London Stock Exchange.

56. Marinova, J., Plantenga, J., & Remery, C. (2010). Gender Diversity and Firm Performance: Evidence from Dutch and Danish Boardrooms. Utrecht School of Economics.

57. Mayer, C. (2013). Firm Commitment. Why the Corporation is Failing us and how to Restore Trust in it, London: Oxford University Press.

58. McCahery, J.A., & Vermeulen, E.P.M. (2013). Understanding the Board of Directors after the Financial Crisis. ECGI Working Paper Series in Law.

59. Merton, R. (1987). A simple model of capital market equilibrium with incomplete information. Journal of Finance 42, 483-510.

60. Nielsen, S., & Huse, M. (2010). Women Directors' Contribution to Board Decision-Making and Strategic Involvement: The Role of Equality Perception. European Management Review 7, 16-29.

61. Pelled, L.H., Eisenhardt, K., & Xin, K.R. (1999). Exploring the Black Box: An Analysis of Work Group Diversity, Conflict, and Performance. Administrative Science Quarterly 44, 1- 28.

62. Perfect, S.B., & K.W. Wiles. (1994). Alternative Constructions of Tobin's q: An Empirical Comparison. Journal of Empirical Finance (forthcoming).

63. Peterson, C.A., & Philpot, J. (2007). Women's Roles on U.S. Fortune 500 Boards: Director Expertise and Committee Memberships. Journal of Business Ethics 72, 177-196.

64. Pfeffer, J. (1972). Size and Composition of Corporate Boards of Directors: The Organization and its Environment. Administrative Science Quarterly 17, 218-228.

65. Pfeffer, J., & Salancik, G.R. (1978). The external control of organizations: a resource dependence perspective. Harper & Row, New York.

66. Pinto, A.R. & Visentini, G. (1998). The Legal Basis of Corporate Governance in Publicly Held Corporations: A Comparative Approach. The Hague : Kluwe.

67. Rose, C. (2007). Does Female Board Representation Influence Firm Performance? The Danish Evidence. Corporate Governance: An International Review 15, 404-413.

68. Sharpe, N.F. (2010). Rethinking the board function in the wake of the 2008 financial crisis. Journal of Business and Technology Law, Vol. 5, No. 1.

69. Singh, H., & Harianto, F. (1989). Management-board relations, takeover risk, and the adoption of golden parachutes. Academy of Management Journal, 32(1), 7–24.

70. Singh, V. & Vinnicombe, S. (2003). The 2002 Female FTSE Index and Women Directors. Women in Management Review 18((7), 349–358.

71. Smith, N., Smith, V., & Verner, M. (2006). Do Women in Top Management Affect Firm Performance? A Panel Study of 2,500 Danish Firms. International Journal of Productivity and Performance Management, 55,7, 569–593.

72. Stout, L.A. (2000). The Investor Confidence Game. 68 Brooklyn Law Review 407.

73. Streeck, W., & Yamamura, K. (2001). The Origins of Neoliberal Capitalism. Ithaca, NY: Cornell University Press.

74. Tüngler, G. (2000). The Anglo-American Board of Directors and the German Supervisory Board – Marionettes in a Puppet Theatre of Corporate Governance or Efficient Controlling Devices? Bond Law Review. Vol. 12, Issue 2.

75. Wearing, B., & Li, C.A. (2003). Between glass ceilings: Female non-executive directors in UK quoted companies. International Journal of Disclosure and Governance 1, 355–371.

76. Yermack, D. (1996). Higher Market Valuation of Companies With a Small Board of Directors. Journal of Financial Economics 40,2, 185–21.