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**Does Gender Diversity in Corporate Boards Pay Off? A Study on
the Banking Sector of Bangladesh**

DOES GENDER DIVERSITY IN CORPORATE BOARDS PAY OFF? A STUDY ON THE BANKING SECTOR OF BANGLADESH

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Abstract

The objective of this research is to examine whether gender diversity in the boards of directors results in better financial performances of the banks in Bangladesh. In light of agency theory and resource dependency theory, board gender diversity should have positive influence on firm performance. However, empirical researches on the issue have provided perplexing results. Hence further investigation is worth exploring. Unlike past empirical works, this study has broken down firm profitability using DuPont's identity to investigate different aspects of financial performance; such as efficiency and risk-taking behavior. Data were collected from 5 year (2013-2018) annual reports of the all commercial banks listed in Dhaka Stock Exchange. Simple descriptive, correlation and linear regression analysis were done to examine the role of board gender diversity on firm performance. The results of correlation and regression analysis do not demonstrate any significant association between board gender diversity and the measures of profitability, asset utilization efficiency and financial leverage, which is contrasting to the broadly held belief of the proponents of the board gender diversity agenda. Perhaps, gender stereo type, tokenism, suboptimal decision process, female directors' background and recruitment process can explain such contrasting results. The study therefore should entice practitioners and future researchers to dig deep into the reasons of getting such contrasting results.

Keywords : Board Gender Diversity, Commercial Banks, Financial Performance.

1. INTRODUCTION

Generally, the board of directors of an organization is the committee with the responsibility of developing strategic goal or vision of an organization and gender diversity in board refers to the inclusion of women directors in the boards (Ekadah & Mboya, 2012; Julizaerma & Sori, 2012). Recently, organizations, all over the world are becoming more concerned about women representation in company's board of directors (Marinova, Plantenga & Remery, 2010) as part of their diversity programs. It is assumed that women representation in board may improve organization's performance because of their some inborn capacity and different set of soft skills (Singh, Terjesen & Vinnicombe, 2008), which may enhance the quality of board strategic decisions.

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Economies across the world are paying serious concern to the potential benefits of including women in strategic decision-making process by giving them positions in top management and boards. For example, Norway pioneered the quota system for women directors by keeping 40 percent seats in the board in 2007, the result ten years later is an increase in women board members from 6 percent in 2002 to 42 percent in 2016 (The Global Gender Gap Report, 2018). American, European and some developing Asian countries also have mandatory clause to maintain a certain percentage (30 to 40 percent) of women in the boards of listed companies (Teigen, 2016). India's Companies Act 2013 requires all publicly listed companies having paid-up capital of Rupees one hundred crore or more (almost 1 crore and 40 thousand dollar), and a turnover of Rupees three hundred crores or more (almost 4 crore and 25 thousand dollar), to appoint at least one women director. The penalty for non-compliance of provision extends to a fine of Rs.10,000 (almost 140 dollar) with a further fine of Rs.1000 (almost 140 dollar) per day if the contravention continues.

Bringing gender parity in all economic sectors is also one of the priority agenda of the Government of Bangladesh these days and the country has made a good progress in closing the gender gap. According to Global Gender Gap Index, Bangladesh ranked 48 (Score 0.721) position among 148 countries worldwide in 2018 from ranked 91st among 115 nations included in the index in 2008 (The Global Gender Gap Report, 2018). According to the indexing body, Bangladesh has made commendable progress in term of equal opportunities for legislators, senior officials, managerial, professional and technical roles since 2008. However, the banking sector has long been perceived as male dominated workplace. No female was employed in the banking sector of Bangladesh before 1971. There is a common believe that females are not suitable for dealing with money; especially in strategic terms. Only a few of the females who joined in banks after liberation war of 1971 has taken their place in the boards of directors by showing their performance. Still, very few females are considered for top level positions in banks and other corporate houses regardless of their performance. Yet, no female has been appointed as managing director of any public and private commercial banks since the birth of Bangladesh. The glass ceiling is very hard to crack in banking sector.

Recently, Bangladesh Bank has introduced a quota system for appointing females to encourage them to work with financial institutions and come out of the stereo-type perception regarding the banking sector. As businesses are driven by their financial bottom-line; to promote this agenda of government for bringing gender parity in the banking sector, it is important to investigate whether inclusion of female in top management and boards of directors pay off in terms of financial performance.

2. LITERATURE REVIEW

Board of directors, regardless of their gender are considered as one of the valuable source of knowledge and expertise for formulating and assessing firm strategic decisions (Rindova, 1999; Pugliese et al., 2009). As female compose more than fifty percent of world population and close to half of the workforce, it is presumed that

companies are losing out an important segment of talent without substantial female representation on the boards. Thereby, female representation in boards is becoming one of the much discussed issues now a days. There are proven benefits of appointing females in boards. When Fortune 500 companies were ranked by the number of female in their boards, those in the highest quartile in 2009 reported a 42% greater return on sales or profit margin and a 53% higher return on equity (Arguden, 2012). As female compose more than fifty percent of world population and close to half of the workforce, it is presumed that companies are losing out an important segment of talent without substantial female representation on the boards. Thereby, female representation in boards is becoming one of the much discussed issue now a days.

How gender diversity in boards can improve performance have been explained by different behavioral theories. Agency theory and Resource Dependency theory are the two commendable theories in this regard. Agency theory advocated that balanced board is likely to discourage anyone from dominating the decision-making process (Hampel, 1998), thus may improve corporate performance. Resource dependence theory provides theoretical perspective about the role of the board of directors, regardless of gender which are critical for firm's success. Hillman, Cannella and Harris (2002) and Selby (2000) both suggested that women bring different professional experiences. Solakoglu and Demir (2016) also put forward several reasons why female representation in boards have positive influence on firm's performance which may ultimately lead to higher performance, such as the diverse board can gain a well understanding of the market place; may promote higher creativity and innovation; may improve the selection process of the firm which may lead to a better management team; is expected to have a broader view of the business environment through the evaluation of many alternatives; and may creat a better corporate image. Carter, Simkin and Simpson (2003) asserted that more female representation in board may promote better decision making process because females have more curiosity about very small things and are prone to do detail analysis of the issues on the table which may be critical to the success of many organizations.

In the context of Bangladesh, Dutta and Bose's (2006) work is perhaps the only prominent research examining the impact of board female representation on financial performance of 15 commercial banks. They used just two common measures of profitability (ROA and ROE) as the proxy of financial performance and did non-parametric analysis (Kruskal-Wallis H test). Their results demonstrate very low confidence interval and not suitable for making any standardized conclusion.

With an aim to theorize above assertions, researchers have empirically scrutinized the influence of female representation on financial performance across economies and industry sectors. But the results of the previous studies have provided perplexing findings. For example, Ararat, Aksu and Tansel (2015); Julizaerma and Sori (2012) and others found strong positive relationship between board female representation and firm performance which have been measured by return on asset (ROA) and return on equity (ROE). Whereas, Haslam et al. (2010), Adams and Ferreira (2009)

and others found significant negative relationship between female presence in board and firm financial performance. Other researchers such as Sila, Gonzalez and Hagedorff (2016); Babalos, Caporale and Phillipas (2015); and Ekadah and Mboya (2012) found no association between these two. As the empirical researches to date have conflicting results, it is important to investigate further whether female representation on boards result any positive outcome.

3. RESEARCH QUESTION

Almost all researchers who have investigated the impact of board gender diversity on firm financial performance have used common profitability measures e.g. return on asset (ROA) and return on equity (ROE), none investigated the impact on other measures of financial performance such as efficiency in utilization of assets and/or financial leverage or risk taking behavior. However, different researchers have made subjective explanation of the positive relation between board woman representation and firm performance using various different perspectives. For example, Bart & McQueen (2013) stated that female directors are found to be better and consistent in fair decision making. As female drive 70% of purchase decisions by consumers in the European Union and 80% in the United States; Arguden (2012) argued that female do better address the concerns of customers, employees, shareholders, and the local community. Maxfield et al. (2010) revealed that in the contexts of corporate management, female deal more effectively with risk as they focus on long-term priorities. Hence, female representation in boards may contribute to firm performance not only by increasing profit but also by increasing operational efficiency, cutting costs, boosting sales, being able to charge higher price, reducing risks and others. Therefore, the research questions of the paper are as follows:

Broad research question: Does gender diversity in board have any impact on financial performance of firms?

Specific research questions :

- Does female representation in board influence firm profitability?
- Does female representation in board influence asset utilization efficiency of firms?
- Does female representation in board influence risk taking behavior of firms?

4. RESEARCH OBJECTIVES

The main objective of this research is to investigate the state of female representation in boards, scrutinize whether companies with gender diversity in boards exhibit better financial performance in terms of profitability, asset utilization and risk-taking behavior than others.

5. SCOPE OF THE RESEARCH

Different sectors have very different culture and practices in terms of maintaining female representation in board and employment. As banking sector in Bangladesh

has grown up rapidly over the past three decades and female employment in banks is burgeoning. It seems worth investigating what is happening in bank boards in terms of female representation. Hence, this research focuses on the banking sector of Bangladesh.

6. RESEARCH HYPOTHESES

The findings from empirical researches investigating the influence of board female representation on financial performance are divergent. However, several theories such as Agency theory and Resource dependency theory, presented in literature review section, suggested positive association between these two. So, the primary hypothesis of the research is,

H_{0a} : Banks having higher gender diversity in board has better financial performance (FP).

Singh, Terjesen and Vinnicombe (2008); Hillman, Cannella and Harris (2002) and others asserted that the female members on board brings soft-skills, experiences and values on the table that are different from those of the male member which may contribute to firm performance by enhancing innovation, customer loyalty, efficiency and/or cost cuts. Board gender diversity thereby is likely to contribute both in terms of enhancing profitability and boosting sales while maintaining the level of assets (i.e., asset utilization efficiency). Hence, the following two specific hypotheses are made.

H_{a1} : Banks having higher gender diversity in board are more profitable

H_{a2} : Banks having higher gender diversity in board demonstrate better asset utilization efficiency

Niessen and Ruenzi (2007); Powell and Ansic (1997) and many others show that women are risk averse in their decision making especially when financial impact is involved. So, the third specific hypothesis is as follows-

H_{a3} : Banks having higher gender diversity in board are more cautious while taking risks.

7. RESEARCH METHODOLOGY

7.1 Sources of Data

The research is based on secondary data. Literature review and conceptual framework of the study have been developed based on relevant published sources e.g., research articles and books. Data related to board composition are collected from Lank Bangla Financial Portal (<http://lankbd.com>) and company website. Financial performance data over the last five-year period are collected from published annual reports of the companies. Five-year average of financial performance data and latest composition of the board of directors are used for analysis. However, whether there has been any significant change in board composition during this five-year period has been reviewed for descriptive analysis.

7.2 The Sample and the Sampling Technique

The population of the study includes all commercial banks operating in Bangladesh. As public (government owned) commercial banks are controlled and guided by government's development agenda they might not always pursue financial bottom line. Hence, their performance metrics may be different from those of the private commercial banks. Thus, the sampling frame of the study is the private commercial banks operating in Bangladesh. For data accessibility, the researchers have adopted purposive sampling technique and the 30 commercial banks listed in DSE have been chosen as sample for the study.

7.3 The Variables

The independent variable of this study is female representation in board. Some studies such as Simpson, Carter and D'Souza (2010) have used the number of female directors on board as a measure of female representation on board while others such as Lenard et al. (2014), Adams and Ferreira (2009) and others have used the percent of female directors on board. A study by Strøm, D'Espallier and Mersland (2014) has used both percent of female and number of female to measure board female representation. For the purpose of this study, the percentage of female members on board (BODFPRCNT) is used as the proxy of board female representation.

Thus, $BODFPRCNT = \text{Number of female members in board} / \text{Total number of members in board}$

The dependent variable, financial performance has been measured by the most widely used profitability ratios namely- return on asset (ROA) and return on equity (ROE) together because, while reviewed together they provide a clearer picture of performance. For example, sound level of both ROA and ROE indicate that company has been able to generate robust income for the investors; but if ROA is low, a high ROE does not represent sound performance as the company may be heavily indebted, hence risky. $ROA = NI/TA$, where NI=net income reported in income statement and TA= total asset reported in balance sheet. So, ROA determines the profit per dollar (relevant currency) of investment in assets. In other words, it represents how well an organization is doing by generating income for both equity and debt investors. ROE, on the other hand is determined by dividing net income (NI) by total equity (TE). $ROE = NI/TE$. This measure represents how well an organization is doing by generating income for its owners or equity holders.

In finance, especially in the analysis of performance of banks, use of DuPont's Identity is quite common to pin point various aspects of financial performance i.e., profit margin, asset utilization and leverage (financial risk).

DuPont's Identity: $ROE = NPM * ATO * AER$

Where, NPM = Net Profit Margin, ATO = Asset Turnover Ratio, and AER = Asset to Equity Ratio or Equity Multiplier.

- Net profit is revenue minus expense or costs. Net profit margin (NPM) measures net profit realized per dollar (currency) of sales or revenue (Net Income/Sales). So high value of NPM indicates good performance; in terms of controlling costs or being able to charge higher price to enhance profit.
- Asset turnover ratio (ATO) measures revenue or sales generated per dollar (currency) of assets (Sales/Total Asset). High ATO means increased sales or lowered level of assets while maintaining sales. Therefore, it is used as the measure of asset utilization efficiency.
- Asset to equity ratio (AER), on the other hand expresses total asset as a proportion of total equity (Total Asset/Total Equity). High value of AER indicates high dependence on debt finance or high financial leverage which is risky. Hence, AER is used as a proxy of risk-taking behavior.

7.4 Data Analysis Method

Both descriptive and inferential analysis have been done. Descriptive statistics presents the current status of board gender composition (diversity). Data were run on the software SPSS 16.0 for analysis. Pearson correlation analysis and simple regression analysis have been used to determine the relationship between board female representation and financial performance. Regression models have been formulated for each measure of financial performance.

8. RESULTS AND ANALYSIS

8.1 Descriptive Analysis :

Banks listed in Dhaka Stock Exchange have varying size of boards. The number of directors on board ranges between 7 and 21. Majority of the boards have 10 to 15 directors. The frequency distribution of board size and female members on board is presented in Tables 1 and 2 respectively. 8 of the banks studied have no female directors. Having 1 or 2 female members is commonplace. Only 9 of the banks have 3 or more female directors. Highest number of female directors is found to be 4. Most of the boards have less than 20% female representation, only 5 boards have 30% or more female directors. Given the descriptive statistics it is evident that majority of the banks in Bangladesh are still meager in terms of female representation or gender diversity on board.

Table 1 : Frequency Distribution of Board Size

No. directors on board	Frequency
Less than 10	6
10 to 15	14
Above 15	10

Table 2 : Frequency Distribution of Female Members on Board

No. of female directors	Frequency	% of female directors	Frequency
None	8	Less than 20%	21
1 to 2	13	20% to 30%	6
>= 3	9	>= 30%	3

8.2 Correlation Analysis :

Pearson's Correlation test was done between the percent of female members on board (BODFPRCNT) and the measures of financial performance. The results of correlation analysis are presented in Table 3.

Table 3 : Correlation between BODFPRCNT and the Measures of Performance

	ROA	ROE	ATO	AER	NPM
Pearson Correlation Coefficient	-19.75%	-3.24%	16.43%	-12.77%	25.45%
Sig. (1-tailed)	29.55%	86.5%	38.5%	50.1%	17.5%

Among the five measures of financial performance, asset turn over (ATO) and net profit margin (NPM) showed positive but low correlation with BODFPRCNT and the other three measures; return on asset (ROA), return on equity (ROE) and asset to equity ratio (AER) showed negative correlation. But none of the correlations are statistically significant as all sig. values are above 5%. Therefore, percentage of female on board is not significantly associated with none of the measures of financial performance. The broad Hypothesis is H_{0a} and the underlying specific hypotheses H_{a1} , H_{a2} , and H_{a3} are rejected.

8.3 Regression Analysis :

Simple regression was run using BODFPRCNT as the independent variable and the five measures of financial performance as dependent variable, one at a time. So, five regression models have been developed to represent the relationships among the independent and dependent variables. But data set must satisfy four assumptions namely normality, homoscedasticity, linearity and multi-co-linearity to be fit for regression analysis. However, as simple regression is run with only one of the dependent variables at a time, multi-co-linearity is not an issue for this analysis. Other three assumptions are tested using normal p-p plot and scatter plot while running regression analysis in SPSS 16.0 (Pallant, 2016). The resulting graphs are presented in appendices I through V. The summary results of the tests of assumptions are presented in Table 4. All the assumptions are satisfied in cases of using ROA, ROE, ATO and AER as dependent variable. While using NPM as the dependent variable, the normality and homoscedasticity assumptions somewhat deviate (evident from normal p-p plot and scatter plot in appendix), hence the linearity assumption deviates (Pallant, 2016).

Table 4 : Test of the Assumptions of Regression Analysis

	ROA	ROE	ATO	AER	NPM
Normality	hold	hold	hold	hold	somewhat deviates
Homoscedasticity	hold	hold	hold	hold	somewhat deviates
Linearity	hold	hold	hold	hold	deviates

Table 5 summarizes the outputs of the regression runs. Each column presents the vital statistics of the regression output for the dependent variable presented in column head. Low R-square value and negative adjusted R-square value for the dependent variables ROE, ATO and AER indicate that the independent variable BODFPRCNT has insignificant explanatory power. In other words, negligible variance in financial performance (as measured by ROE, ATO or AER) can be explained by the variance in percentage of female on board (BODFPRCNT). In case of using ROA or NPM as dependent variable, R-square value is low but adjusted R-square value is not negative. This indicates that BODFPRCNT has better explanatory power with respect to the variance in ROA and NPM than that in case of other three dependent variables.

Table 5 : Summary of Regression results with BODFPRCNT as the Independent Variable and the Measures of Performance as Dependent Variable

	ROA	ROE	ATO	AER	NPM
R-Square	3.90%	0.1%	2.7%	1.6%	6.50%
Adjusted R-Square	0.50%	-3.5%	-0.80%	-1.90%	3.10%
F statistics	1.137	0.029	0.777	4.64	1.938
Sig. Value	0.295	0.865	0.385	0.501	0.175
Constant	0.878	10.884	4.141	1449.837	12.171
B (unstandardized coefficient)	-0.013	-0.011	0.021	-5.578	1.271
β (standardized coefficient)	-0.198	-0.032	0.164	-1.28	0.254

The following regression equations can be developed from the regression results presented in Table 5-

$$\text{ROA} = 0.878 - 0.013 \text{ BODFPRCNT} \dots\dots\dots (1)$$

$$\text{ROE} = 10.884 - 0.011 \text{ BODFPRCNT} \dots\dots\dots (2)$$

$$\text{ATO} = 4.141 + 0.021 \text{ BODFPRCNT} \dots\dots\dots (3)$$

$$\text{AER} = 1449.837 - 5.578 \text{ BODFPRCNT} \dots\dots\dots (4)$$

$$\text{NPM} = 12.171 + 1.271 \text{ BODFPRCNT} \dots\dots\dots (5)$$

The constant value in the regression equation indicates the value of dependent variable when the value of the independent variable is zero. Positive value of the constants means, even if there is no female in board there will be certain level of ROA, ROE, ATO, AER or NPM. Only ATO and NPM resulted positive value of coefficient which means only these measures of financial performance have positive association with BODFPRCNT (board gender diversity). Other three measures of performance namely ROA, ROE and AER are negatively associated with BODFPRCNT.

But very low value of the F-statistics and Sig. values higher than 5% indicate that none of the regression models presented above is statistically significant. Hence, there is no significant association between BODFPCNT and financial performance. The broad Hypothesis H_{0a} and the underlying specific hypotheses H_{a1}, H_{a2}, and H_{a3} are rejected.

9. CONCLUSION

This research has scrutinized the status of female representation in the boards of directors of banks in Bangladesh and investigated the relationship between board female representation and financial performance. Unlike previous studies on the topic, this research has incorporated other measures of financial performance e.g. ATO, AER and NPM besides the commonly used measures of profitability e.g., ROA and ROE. Thus, this research has added new edge in the literature by investigating the role of board female representation on different aspects of financial performance e.g. efficiency and risk beyond profitability. By taking all the listed commercial banks under scrutiny this research has overcome the small sample size problem of Dutta and Bose (2006) study which can be considered as the only prominent work on the topic with respect to the banking sector of the country. As all measures of the variables used in this study are ratio level data, parametric analysis (simple linear regression) is done here unlike the non-parametric Kruskal-Wallis H test only used in Dutta and Bose's (2006) work.

In terms of board gender diversity, Bangladesh has made slow but good progress. According to stock exchanges of Bangladesh in 2018, out of total 2871 directors in the companies listed with Dhaka stock exchange 507 (18%, which had increased from 17% in 2016) are female. The corresponding figures are 13% for India and 8% for Sri Lanka. Now 30 out of 40 private commercial banks have at least one female director in their boards and 74 out of 618 directors are female (11.97%) in 48 public and private local commercial banks. Female also have 15 percent seats on the boards in the fourth-generation banks that came in the market after 2013 (Bangladesh Bank, 2018). However, this study does not demonstrate any significant association between female representation in boards and the measures of profitability, asset utilization efficiency and financial leverage which is contrasting to the broadly held belief of the proponents of board female representation agenda. The results of the study therefore should entice practitioners and researchers to dig deep into the reasons of getting such contrasting results.

Bergeron, Block and Echtenkamp (2006) have explained non-significant or negative or no relationship between board female representation and firm performance by gender stereotype threat theory. According to this theory fear of being stereotyped may shunt female directors from raising their voices and thus limit their contributions in board decisions. Kanter (1977) have coined this phenomenon as tokenism in the

context of women leadership in politics. On the other hand, Solakoglu and Demir (2016); and Petrovic (2008) have argued that diverse board may result higher level of interpersonal and inter group conflicts that may lower the effectiveness and efficiency of decision-making process. As diverse people are involved in decision making, the whole process may slow down and result in value destruction rather than value creation in firms operating in sectors that require a quick response to market shocks. But none of these assertions has been established by empirical research. In order to make any concluding remark in this regard, future researchers thus should concentrate on the presence of tokenism in board composition and on the details of board decision-making process with and without female representation. Another argument behind the non-significant association may be that the female directors lacking in competencies to contribute positively in board decision process. However, such possibilities can only be validated thorough analysis of the female directors' profile, background and recruitment process. Hence, this as well can be a future research agenda.

REFERENCES

- Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*, 94, pp.291–309. <https://doi.org/10.1016/j.jfineco.2008.10.007>
- Ararat, M., Aksu, M., & Tansel, A. T. (2015). How board diversity affects firm performance in emerging markets: Evidence on channels in controlled firms. *Corporate Governance: An International Review*, 23, pp.83–103. <https://doi.org/10.1111/corg.v23.2>
- Argüden, Y. (2012). A general commentary on EU corporate governance proposals: A response to Leblanc et al, *International Journal of Disclosure and Governance*, November 2012, Volume 9, Issue 4, pp 364–365
- Babalos, V., Caporale, G. M., & Philippas, N. (2015). Gender, style diversity, and their effect on fund performance. *Research in International Business and Finance*, 35, pp.57–74. <https://doi.org/10.1016/j.ribaf.2015.02.020>
- Bangladesh Bank Report, 2018
- Bart, C., and McQueen, G. (2013). Why women make better directors. *International Journal of Business Governance and Ethics*, 8(1).
- Bergeron, D. M., C. J. Block and B. A. Echtenkamp, (2006). Disabling the able: Stereotype threat and women's work performance. *Human Performance*, 19(2): 133-158.
- Carter, D. A., Simkins B. J. and Simpson, W. G. (2003). Corporate governance, board diversity, and firm value. *The Financial Review*, 38, pp.33-53.
- Dutta, P., & Bose, S. (2006). Gender diversity in the boardroom and financial performance of commercial banks: Evidence from Bangladesh. *The Cost and Management*, 34, pp.70–74.
- Ekadah, J. W., and Mboya, J. (2012). Effect of Board Gender Diversity on the Performance of Commercial Banks in Kenya. *European Scientific Journal*, 8(7).
- Hampel, R. (1998). Report of the committee on corporate governance. Final Report. London: Gee Publish Ltd.
- Haslam, S. A., Ryan, M. K., Kulich, C., Trojanowski, G., and Atkins, C. (2010). Investing with prejudice: The relationship between women's presence on company boards and objective and subjective measures of company performance. *British Journal of Management*, 21, pp.484–497.
- Hillman, A. J., Cannella, A. A. and Harris, I. C. (2002). Women and racial minorities in boardroom: How do directors differ? *Journal of Management*, 28, pp.747-763.

- Julizaerma, M. K., and Sori, Z. M. (2012). Gender diversity in the boardroom and firm performance of Malaysian public listed companies. *Procedia - Social and Behavioral Sciences*, 65, pp.1077-1085.
- Kanter, R. M. (1977). *Men and women of the corporation*. New York : Basic Books.
- Lenard, M. J., Yu, B., York, E. A., & Wu, S. (2014). Impact of board gender diversity on firm risk. *Managerial Finance*, 40, pp.787–803. <https://doi.org/10.1108/MF-06-2013-0164>
- Marinova, J., Plantenga, J., and Remery, C. (2010). Gender diversity and firm performance: Evidence from Dutch and Danish boardrooms. Utrecht School of Economics, Tjalling C. Koopmans Research Institute, Discussion Paper Series 10-03.
- Maxfield, S., Shapiro, M., Gupta, V., & Hass, S. (2010). Gender and risk: women, risk taking and risk aversion. *Gender in Management: An International Journal*, 25(7), 586-604.
- Niessen, A., & Ruenzi, S. (2007). Sex matters: Gender differences in a professional setting (No. 06-01). CFR Working Paper.
- Pallant, J. (2016). *SPSS Survival Manual*. Berkshire, UK: McGraw Hill Education.
- Petrovic, J. (2008). Unlocking the role of a board director: A review of the literature. *Management Decision*, 46, 1373– 1392. <https://doi.org/10.1108/00251740810911993>
- Powell, M., & Ansic, D. (1997). Gender differences in risk behaviour in financial decision-making: An experimental analysis. *Journal of economic psychology*, 18(6), 605-628.
- Pugliese, A., Bezemer, P. J., Zattoni, A., Huse, M., Van den Bosch, F. and Volberta, H. (2009). Boards of director's contribution to strategy: A literature review and research agenda. *Corporate Governance: An International Review*, 17, pp.292-306.
- Rindova, V. (1999). What corporate boards have to do with strategy: A contingency perspective. *Journal of Management Studies*, 36, pp.953-975
- Selby, C. C. (2000). From male locker room to co-ed board room: A twenty-five-year perspective. In R.J. Burke and M.C. Mattis (eds) *Women on corporate boards of directors: International challenges and opportunities*. Dordrecht: Kluwer, pp: 239-251.
- Sila, V., Gonzalez, A., & Hagedorff, J. (2016). Women on board: Does boardroom gender diversity affect firm risk? *Journal of Corporate Finance*, 36, pp.26–53. <https://doi.org/10.1016/j.jcorpfin.2015.10.003>
- Simpson, W., Carter, D., & D'Souza, F. (2010). What do we know about women on boards? *Journal of Applied Finance*, 20, pp.27–39.

Singh, V., Terjesen, S. & Vinnicombe, S. (2008). Newly appointed directors in the boardroom: How do women and men differ? *European Management Journal*. 26(1), pp.48-58.

Solakoglu, M. N., & Demir, N. (2016). The role of firm characteristics on the relationship between gender diversity and firm performance. *Management Decision*, 54, pp.1407–1419. <https://doi.org/10.1108/MD-02-2015-0075>

Strøm, R. Ø., D’Espallier, B., & Mersland, R. (2014). Female leadership, performance, and governance in microfinance institutions. *Journal of Banking and Finance*, 42, pp.60–75. <https://doi.org/10.1016/j.jbankfin.2014.01.014>

Teigen, M. (2016). Gender Quotas for corporate boards in Norway. EUI Department of Law research paper No. 2015/22. Available at: <https://ssrn.com/abstract>

The Global Gender Gap Report 2018, World Economic Forum, Available at: <https://www.weforum.org>

APPENDIX

Test results of the assumptions of regression analysis



