

# GENDER DIVERSITY ON CORPORATE BOARDS: DIRECTORS' PERCEPTIONS OF BOARD FUNCTIONING AND GENDER QUOTAS

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## Abstract

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This research explores how increased gender diversity on corporate boards in Iceland, driven by applying a “hard” public policy, i.e., board gender quota legislation, has affected post-quota board directors' perceptions of board functioning. This study falls into the growing literature on board diversity (Boshanna, 2021; Li et al., 2020). Directors' opinions towards board decision-making and monitoring activities are researched, as well as their effect on corporate governance practices. A survey was answered by 244 board directors in Iceland. Results show that the initial attitude towards gender quotas was more negative among male directors than female directors but became more similar and positive over time. Strong support is found for increased female board participation leading to different viewpoints being discussed at the board table in addition to better decision-making. A similar picture emerges regarding the behavior of holding chief executive officers (CEOs) accountable and being more focused on corporate governance practices. These results were significantly the view of female directors and directors chairing the assessed board. Male directors are more negative than their female counterparts about the short-term effect of increased female participation is having on board dynamics. This research indicates that a gender quota has led to increased female board participation in addition to impacting decision-making corporate norms, according to directors, as policymakers intended.

**Keywords:** Gender Quota, Board Diversity, Monitoring, Corporate Governance

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## 1. INTRODUCTION

Gender diversity on corporate boards has received increased attention from academia, regulation, business, and the general public in recent years (Benkraiem et al., 2017; Li et al., 2020; Nguyen et al., 2020; Khatib et al., 2020; Mensi-Klarbach et al., 2017; Vinnicombe et al., 2008). With the heightened public scrutiny of boards and corporate governance, the added focus has been given to antecedents and consequences of board diversity, where utility, equality, or business case arguments are put forth as arguments for or against gender diversity (Benkraiem et al., 2017; Boshanna, 2021; Torchia et al., 2011). A handful of public policymakers around the world have taken the hard measure of setting board gender quotas, to support better gender balance at the board table and improve the decision-making and monitoring roles of boards of directors (Benkraiem et al., 2017; Campbell & Minguez, 2010; Mensi-Klarbach et al., 2017).

The philosophy of policymakers using regulation as a means to increase female participation on corporate boards gained momentum following the global economic crisis of 2008-2010. Political and popular support for such regulation became widespread over the past decade. Previously, many countries had experimented with softer methods aiming to increase female ratios on corporate boards, but with limited success. Both governmental agencies and various government institutions urged companies to increase diversity and gender balance in the boardroom (Arnardottir & Sigurjonsson, 2017). In Iceland, this balance was regularly monitored by official statistics, but the results revealed only limited change (Ministry of Industry and Commerce, 2005; Arnardottir & Sigurjonsson, 2018). Norway went through a similar experience, and it wasn't until gender quota regulation was introduced that significant change occurred (Elstad & Ladegard, 2012; Mensi-Klarbach et al., 2017; Storvik & Gulbrandsen, 2016). The previous Norwegian "soft law" had been deemed ineffective or too slow to show effects.

The Icelandic parliament passed legislation in 2010 on gender quotas which took full effect in September 2013. The Icelandic law, which states that at least 40% of a board must be of either gender, went further than the Norwegian regulation and is still the strictest concerning how companies apply gender quotas. This holds for boards of directors in all state-owned firms, publicly traded firms, and private limited firms with 50 or more employees. The purpose of this research is to broaden the dialogue concerning the policy consequences of hard law on gender equality for board dynamics. It deepens the recent stream of literature on board gender diversity, by focusing on the individual level data, assessing how board directors perceive board functioning after the quota regulation was implemented, and assessing their initial view toward corporate gender quota regulation. Now a decade after regulation on gender quotas at corporate boards was passed in Iceland, the European Union (EU) has reached a political agreement on a similar gender quota for listed corporations (European Commission, 2022). The agreement was approved on

June 7, 2022, after 9 years of debate. The EU agreement ensures that the other gender has at least 40% of board seats, as in Iceland.

This study contributes to the existing research literature by, contrary to the mainstream methodology of building on archive data (Boshanna, 2021), applying a questionnaire approach among board directors, hence measuring their personal perception of how board dynamics have changed in the wake of changes in board composition. The study is one of few investigations based on the reported experience of both female and male board directors regarding group dynamics in the wake of gender quota regulation. A further contribution is that data is collected where the board quota legislation is the hardest in the world to date.

The structure of this paper is as follows. Section 2 reviews the relevant literature and the theoretical background for the research is provided. Section 3 presents the research methodology. Section 4 details the findings of the study. Section 5 presents the findings, discussions, and implications of the study. Section 6 provides the concluding remarks and limitations of the study, and directions for future research are provided.

## 2. LITERATURE REVIEW

### 2.1. Effective boards, board composition, and importance of gender diversity

The composition of corporate boards has been an important issue in recent corporate governance research (Alnodel & Azid, 2021; Marashdeh et al., 2021a). Board composition is seen as a crucial condition to attain strong board effectiveness and good governance. Academics have taken various perspectives when defining and analyzing good board effectiveness and composition of boards, with studies focusing on, among other things, the board size, board independence, and director attributes (Virtanen, 2012; Rubino et al., 2017; Saggese et al., 2021; Musviyanti & Yударuddin, 2021; Marashdeh et al., 2021b). Over the years, scholars have, for example, examined directors from the human capital, social capital, and demographics perspective (Johnson et al., 2013). Directors' gender has received increased attention within the literature, where researchers have sought to understand various issues, for example, how women access boards, what some of the unique women's characteristics or profiles are brought to the board table, and what the possible effects of women's presence can have on board dynamics and organizational outcomes (Kirsch, 2018; Mensi-Klarbach et al., 2017; Elstad & Ladegard, 2012; Virtanen, 2012; Dunn, 2012; Kusumawardani et al., 2021). The central question raised is whether the presence of women on a board contributes to the board's performance through role performance (Wan & Ong, 2005), task performance (Huse et al., 2009), or ultimately corporate performance (Adams & Ferreira, 2009; Aguinis, 2011; Marashdeh et al., 2021a; Van der Walt et al., 2006).

## 2.2. Soft to hard approaches to increase gender diversity: Iceland's hard policy

Under-representation of women on corporate boards across the world has received increased attention in recent years, with the added focus on means to increase gender balance (Mensi-Klarbach et al., 2017; Terjesen & Sealy, 2016). Countries have varied in their approach to increasing gender diversity on corporate boards, ranging from "soft" to "hard" measures (Terjesen et al., 2015; Terjesen & Sealy, 2016). The "hard" approach towards corporate board representation was initiated in Norway in 2006 for state-owned enterprises and in 2008 for principal trading firms (Seierstad & Huse, 2017; Machold et al., 2013; Terjesen et al., 2015).

In 2010, in the wake of the financial crisis, Iceland followed that path. Gender quotas for corporate boards were considered to fall in line with Iceland's pre-existing ideology regarding gender equality and egalitarianism (Arnardottir & Sigurjonsson, 2017) and to be an appropriate answer to widespread demand for improved corporate governance, monitoring, and decision-making at the board level (Special Investigation Commission [SIC], 2010). This tone is in line with the literature towards women being more risk averse than men, although there is recent research contradicting that argument (Bruna et al., 2019).

Law 13/2010 was passed in 2010, taking full effect in September 2013. The Icelandic law stated that 40 per cent of each gender must be represented on corporate boards of directors in state-owned enterprises, publicly traded firms and private limited companies with 50 or more employees. No other public policy has been legalized with such extensive gender quota requirements for firms. The stated aim of Law 13/2010 was to work towards a more equal proportion of women and men in influential positions in limited and private limited companies by increasing transparency and facilitating access to information (Parliamentary Document No. 71/2009–2010). Further arguments used for this legislative change were that gender equality was thought to increase the population from which corporate boards recruit their directors, and hence contribute to improved board competence. In other words, this would counter decreased homogeneity of boards, where homogeneity is a risk factor in boards' decision-making (Ministry of Industry and Innovation, 2013; Arnardottir & Sigurjonsson, 2017).

## 2.3. Theoretical underpinning, research questions, and hypothesis

This study is based on two theories: *resource dependency theory* (Pfeffer & Salancik, 1978) and *agency theory* (Jensen & Meckling, 1976; Ross, 1973; Fama & Jensen, 1983). Each of them discusses the roles and practices of boards in a different way, and the theories thus cast a different light on the work of boards (Hillman et al., 2000; Hillman & Dalziel, 2003). Resource dependency theory offers the rationale for the board's function of providing critical resources to the firm including advice, counsel, legitimacy, and links to other organizations (Hillman & Dalziel, 2003). These are necessary resources to help corporations both understand and

respond to an ever-changing environment (Boyd, 1990). The rationale for the board's critical function of monitoring management on behalf of various shareholders is provided in the agency theory of Fama and Jensen (1983). The board needs the appropriate mix of capabilities and experience to exercise the board's monitoring function of evaluating management and the business strategy (Hillman & Dalziel, 2003).

Advice, counsel, and links to other organizations are vital for effective board functioning (Hillman & Dalziel, 2003) and boards are therefore heavily reliant on the cumulative and collective human capital and social capital of their members (Bear et al., 2010). Diversity of experience is an important board asset, as studies have shown. For example, Joshi and Roh (2009) showed that functional diversity can enhance team innovation through generations of alternative solutions. The greater the diversity of board resources, the greater the potential for understanding the complicated and often contradicting data leading to more effective problem-solving and decision-making. Board resource diversity may also entail a greater variety of network connections, within and outside the firm, and can aid the corporation in understanding and then responding to the environment (Bear et al., 2010). International studies have shown some differences in the director profile of male and female board members. Where female directors tend to have on average higher education than male directors (Hillman et al., 2002; Machold et al., 2013), female directors often gain experience with smaller firms and more often come from an expert background outside of the business (Hillman et al., 2002; Johnson et al., 2013). Studies have also shown that female directors are also less likely to have prior chief operating officer (COO) or chief executive officer (CEO) experience (Singh et al., 2008). Therefore, having more female directors may provide boards with different perspectives that can prove helpful in addressing internal and external environmental concerns. Building on this argumentation, the authors proposed the following research question:

*RQ1: With increased female participation on boards, in the wake of gender quotas, are different viewpoints more thoroughly discussed, and is improved decision-making detected within the board according to board directors?*

Monitoring of management is also vital for effective board functioning, where the board's monitoring role includes functions like the implementation of strategy or CEO assessment and compensation decisions (Benkraiem et al., 2017; Hillman & Dalziel, 2003). To effectively monitor management and strategy implementation the board needs the appropriate knowledge, skills, and abilities. Many academics have argued that diversity of director resources can help provide crucial knowledge, skills, and abilities (Johnson et al., 2013; Hillman et al., 2000). Having more gender-diverse boards can enhance the board's expertise through females' range of professional experience and more advanced degrees (Bear et al., 2010). These added qualities provided by female board directors can enable the board to monitor management (Hillman & Dalziel, 2003) more effectively. In addition, previous studies have shown that CEOs historically attempt to

select board members who are demographically similar, partially to affect support and compensation (Westphal & Zajac, 1995). Gender diversity on the board can therefore help ensure more demographic differences from the CEO, which is needed for effective monitoring.

Our second related research question reads:

*RQ2: With increased female participation on boards, in the wake of gender quotas, is more monitoring behavior detected within the board, and better attention given to corporate governance practices according to board directors?*

The research questions presented refer to the attitudes of board members as a whole but based on the literature, it can be concluded that there may be significant differences in the attitudes of board members based on gender. For example, research by Einarsdottir et al. (2020) showed that female managers in the country's largest companies are significantly more positive about gender quota laws than male managers. In addition, studies have shown that attitudes toward gender quotas have met with skepticism in Iceland (Rafnsdóttir et al., 2014). In this study, four non-directional hypotheses are therefore presented that refer to gender differences in the attitude of board members. Hypotheses 1 and 2 (hereinafter *H1* and *H2*) refer to an earlier research question that looks at discussions about different attitudes and improved decision-making, while Hypotheses 3 and 4 (hereinafter *H3* and *H4*) refer to a later research question that looks at increased control of boards and improved governance.

*H1: There is a gender difference in the attitudes of board members if the discussion about different viewpoints has increased within the board with the increase in the number of women on boards.*

*H2: There is a gender difference in the attitudes of board members as to whether improved decision-making has occurred within the board with the increase in the number of women on boards.*

*H3: There is a gender difference in the attitudes of board members as to whether an increase in the number of women on boards leads to increased monitoring.*

*H4: There is a gender difference in the attitudes of board members about whether improved governance can be seen with the increase in the number of women on boards.*

Studies show there may be a difference in attitude towards gender quotas and their consequences between those who are board members and those who play the role of board chairman. Board chairmen generally have long experience on the board and often have great influence within the board vis-a-vis shareholders, CEOs, and nomination committees (Iceland Chamber of Commerce, 2021). Board chairmen may therefore have a different perspective on the work of boards than ordinary board members. Therefore, four hypotheses are presented that refer to differences in attitudes between groups in different positions within the board. Hypotheses 5 and 6 (hereinafter *H5* and *H6*) refer to the first research question that looks at discussions about different attitudes and improved decision-making, while Hypotheses 7 and 8 (hereinafter *H7* and *H8*) refer to a later research question that looks at increased control of boards and improved governance.

*H5: Board chairmen believe, rather than ordinary board members, that discussions about different viewpoints have increased within the board with the increase in the number of women on boards.*

*H6: Board chairpersons believe, rather than ordinary board members, that improved decision-making has occurred within the board with the increase in the number of women on boards.*

*H7: Board chairmen believe, rather than ordinary board members, that an increase in the number of women on boards led to increased monitoring.*

*H8: Board chairpersons believe, rather than ordinary board members, that governance improved by increasing the number of women on boards.*

### 3. RESEARCH METHODOLOGY

#### 3.1. Participants

Of a total of 244 board directors, 41% were female with a mean age of 49 years old (standard deviation (SD) = 9 years) compared to 52 years old of age the male respondents (SD = 10 years) (Table 1). Most directors have a Master's degree, most often in business, and a little higher % of female directors had completed a Ph.D. degree (13%) than male directors (9%).

**Table 1.** Board directors' age and education

Parameters	Female	Male	Total
Number (%)	101 (41%)	143 (59%)	244
<i>Age</i>			
≤ 39 years old	14%	11%	12%
40-49 years old	44%	28%	35%
50-59 years old	30%	39%	35%
60 ≥ years old	12%	22%	18%
Mean age in years old (SD)	49(9)	52(10)	50(10)
<i>Education</i>			
Without university degree	5%	11%	9%
BA/BS	17%	15%	16%
MA/MS/MBA	65%	66%	66%
Ph.D.	13%	9%	10%

On average, male-directors report serving on average on 3.4 boards and female-directors on 2.9; however, this difference is not statistically significant (Table 2). One-third (33%) of female board members serve on one board, and 26% of the women are members of four or more boards; comparatively, 27% of male respondents are members of one board, and 32% serve on four or more boards.

**Table 2.** Descriptive statistics for board directors

Parameters	Female	Male	Total
<i>Number of board seats</i>			
1	33%	27%	30%
2	22%	22%	22%
3	19%	19%	19%
4+	26%	32%	29%
<i>Board experience in years</i>			
0-3 year	21%	11%	16%
4-9 year	40%	24%	31%
10-15 year	20%	25%	24%
16 years+	19%	40%	29%
Mean board experience (SD)	9(7)	15(11)	13(10)
<i>Tenure on the board</i>			
1 year or less	26%	16%	20%
1-3 years	32%	18%	23%
3-6 years	25%	27%	27%
6 years or more	17%	39%	30%
Board chairman	21%	34%	28%
Independent director	58%	41%	48%
Only the director of the gender on the board	18%	4%	9%

Of the total sample, 28% of all directors were in the role of chairman of the board; independent board status is most common among female directors (58%) compared to male directors (41%). A large proportion of male directors (89%) have served for four years or longer on boards, with a mean service length of 15 years (SD = 11 years). Comparatively, a female director's average years of board experience is 9 years (SD = 7 years) which is a significantly shorter board tenure ( $t(236) = -4.910$ ,  $p < 0.000$ ). A little over one-fifth of female directors have less than three years of experience on boards (21%), while 77% of the female directors were already board members when the quota law was passed in 2010. Of the 101 female directors answering the survey, 18% were sitting on a board as the only female director, compared with 4% of male directors.

### 3.2. Survey among board directors

An online survey was sent to board members of the 300 largest Icelandic companies, which were all subject to the new gender quota Law 13/2010. The authors e-mailed the CEOs of the identified companies, introduced the study and provided a link to an online questionnaire available in both Icelandic and English. As Iceland has neither a comprehensive list of which companies are subject to the quota nor a country database of names, personal numbers, and other details, the authors assembled a list of 300 companies that were subject to the quota based on the Icelandic business magazine *Free Trade* (Frjáls Verslun, *Iceland Review* sister publication), information from the Ministry of Industry and Innovation, and information provided by *Credit Info*, a credit reporting company. A total of 260 responses were received, of those 16 were deemed unusable due to the number of questions left unanswered. Based on Iceland's typical small board size of five directors and that most directors serve on average on three boards, authors believe that the response rate is roughly 30% which compares favorably to other surveys of C-suite executives and board directors.

### 3.3. Measurement

A survey was developed based on the author's review of the existing literature on board gender quotas as well as director selection, where key group dynamics and outcome variables were identified, and single measures were co-constructed for each researched theme.

#### 3.3.1. Dependent variables

In the survey, directors were asked to keep one specific current board in mind when answering questions related to the board's key functioning and dynamics. The 23 questions were worded as full statements, and directors were asked to respond on a 7-point Likert continuous scale how much they disagreed or agreed with each statement, where 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neutral, 5 = somewhat agree, 6 = agree, and 7 = strongly agree. Four questions from this list were used as dependent variables in this study. They were as follows:

*With increased female participation on boards, in the wake of a gender quota, ...:*

- *different viewpoints are more thoroughly discussed in board meetings;*
- *decision-making has improved;*
- *board holds CEO more accountable;*
- *more attention is given to corporate governance practices.*

#### 3.3.2. Independent variables

Gender was assessed as a dummy variable where female directors were coded as 1 (N = 101) and male directors were coded as 0 (N = 143). Role on board was assessed as a dummy variable where directors who were serving as board chairman were coded as 1 (N = 69) and general board directors were coded as 0 (N = 191).

#### 3.3.3. Control variables

*Length of board experience on the assessed board (board tenure):* Length of board experience on the assessed board was measured on a continuous scale, and regrouped as follows: 1 = year or less, 2 = 1-3 years, 3 = 3-6 years, 4 = 6 years or more.

*Attitude towards gender regulation in 2010 when the law was passed:* Questions regarding directors' view toward gender quota regulation were twofold and worded as follows "What was your stance in 2010 towards Law 13/2010 on gender quota?" and "What is your stance now (in 2014) towards Law 13/2010 on gender quota?" and both questions were rated on a 7-point Likert scale ranging from 1 = very negative or 7 = very positive, with 4 = neutral.

*Female critical mass effects:* The influence and effectiveness of women on boards may increase with the addition of female directors. Empirical evidence suggests that when a critical mass of women (i.e., at least three in larger boards abroad) is represented on a board, female directors can ask challenging questions and work together to demonstrate collaboration in decision-making (Konrad et al., 2008), and monitoring. This study hence controls for the ratio of women directors on the corporate board. The ratio was measured as the percentage of female total board representation.

To answer the proposed research questions and hypothesis, descriptive statistics, and hierarchical multiple regression were applied.

## 4. RESULTS

### 4.1. Simple correlation between the main variable and descriptive statistics

Table 3 shows descriptive statistics and a simple correlation between the independent, dependent, and control variables of this study. In Table 3, a strong correlational significance between the gender of directors and all four dependent variables can be seen. With females reporting more different viewpoints emerging at the board table (0.342,  $p < 0.01$ ), better decision-making (0.385,  $p < 0.01$ ), more monitoring behavior (0.310,  $p < 0.01$ ), and better corporate governance practices (0.302,  $p < 0.01$ ) than male directors. Table 3 further

shows that board chairs (male and female) are significantly more of the opinion that with increased female board participation in the wake of gender quota regulation the monitoring of CEOs has increased (0.144,  $p < 0.05$ ). Attitudes towards board quota regulation in 2010 are also significantly correlated to all four dependent variables, with those who were more positive towards

the regulation (male and female) are significantly more the opinion that different viewpoints emerge at board meetings (0.390,  $p < 0.01$ ), decision-making is better (0.395,  $p < 0.01$ ), more monitoring behavior can be detected (0.340,  $p < 0.01$ ) and better corporate governance practices are applied (0.271,  $p < 0.01$ ) than those who were more negative towards the board regulation change.

**Table 3.** Descriptive statistics and correlation between variables in the study

No.	Variables	N	M	SD	1	2	3	4	5	6	7	8	9
1	Gender	244	0.41	0.49	-								
2	Board position	244	0.28	0.45	-0.140*	-							
3	Board tenure	243	2.66	1.10	-0.245**	0.205**	-						
4	Proportion % of females within the board	227	0.38	0.16	0.346**	-0.076	-0.280**	-					
5	Attitude before legislation	238	4.23	1.78	0.199**	-0.130*	-0.019	0.219**	-				
6	Attitude after legislation	237	4.67	1.84	0.342**	-0.067	-0.138*	0.220**	0.798**	-			
7	Different viewpoints discussed	237	4.73	1.51	0.343**	0.064	-0.178**	0.131*	0.390**	0.570**	-		
8	Decision-making	236	4.35	1.49	0.385**	0.096	-0.177**	0.263**	0.395**	0.582**	0.861**	-	
9	Monitoring	234	3.89	1.47	0.310**	0.144*	-0.111	0.216**	0.340**	0.476**	0.694**	0.764**	-
10	Corporate governance	236	4.25	1.50	0.302**	0.115	-0.192**	0.225**	0.271**	0.482**	0.796**	0.848**	0.794**

Note: Correlation \*\* =  $p < 0.01$ , \* =  $p < 0.05$ . Gender (0 = male, 1 = female), Board position (0 = director, 1 = chair of the board), Board tenure (1 = year or less, 2 = 1-3 years, 3 = 3-6 years, 4 = 6 years or longer). Attitude before legislation, attitude after legislation, Different views discussed, decision-making, control, and corporate governance were all measured on a 7-point Likert scale.

#### 4.2. Board director's attitude change toward gender quota regulation

A paired samples t-test calculations show that board directors, both male directors, and female directors, attitudes towards gender quotas as a policy approach to gain diversity on boards have become more positive since the law was first introduced until it took effect (Table 4). The mean attitude of directors was 4.22 (SD = 1.78) in 2010 compared to 4.67 (SD = 1.84) four years later. This difference of 0.45 is statistically significant,  $t(235) = 6.096$ ,  $p < 0.001$ , with effect size  $d = 0.397$ . Both female and male directors became significantly more positive towards the board gender quota regulation over time. The female average increased by 0.73 on a 7-point scale which is a significant increase,  $t(98) = 5.859$ ,  $p < 0.001$ , with an effect size of  $d = 0.589$ . The male directors' average increased by 0.24 on a 7-point scale which is a significant increase,  $t(136) = 2.829$ ,  $p < 0.005$ , with an effect size of  $d = 0.242$ . If the directors' age group is considered it can be seen in Table 4 that 50-59 years old female directors were most positive towards the board gender quota regulation change (M = 5.53, SD = 1.59) in the year 2010 and again the most positive age group after the regulation had taken effect (M = 5.90, SD = 1.40). A significant positive increase in attitude appears in the female director age group of 40-49 years old,  $t(42) = -3.985$ ,  $p < 0.001$ , with effect size  $d = 0.608$ . Also, in the male director age group of 50-59 years old,  $t(53) = -2.180$ ,  $p < 0.034$ , with effect size  $d = 0.297$ . The only age group that did show attitude change across time towards the gender quota regulation were the youngest male directors, 39 years old and younger. The mean of 3.60 on a 7-point scale remained negative and unchanged over time.

In addition, independent t-tests showed that female directors were significantly more positive towards the gender quota regulation than male

directors, when the regulation was first introduced in 2010,  $t(236) = 3.126$ ,  $p = 0.002$ , with effect size  $d = 0.411$ , and again in 2014,  $t(234) = 5.573$ ,  $p < 0.001$ , with effect size  $d = 0.735$ .

**Table 4.** The attitude of board directors toward quota legislation before and after it took effect

Parameters	Mean (SD)		Change in attitude 2014-2010	t-test
	2010	2014		
Participants	4.22 (1.78)	4.67 (1.84)	+0.45	$p < 0.001$
Females	4.66 (1.79)	5.41 (1.58)	+0.73	$p < 0.001$
≤ 39 years old	4.07 (1.98)	5.07 (1.54)	+1.00	
40-49 years old	4.44 (1.79)	5.23 (1.70)	+0.79	$p < 0.001$
50-59 years old	5.53 (1.59)	5.90 (1.40)	+0.37	
≥ 60 years old	4.09 (1.14)	5.18 (1.60)	+1.10	
Males	3.94 (1.73)	4.14 (1.84)	+0.24	$p = 0.005$
≤ 39 years old	3.60 (1.88)	3.60 (1.88)	0.00	
40-49 years old	4.13 (1.79)	4.29 (1.83)	+0.24	
50-59 years old	4.00 (1.71)	4.33 (1.86)	+0.37	$p = 0.034$
≥ 60 years old	3.73 (1.66)	3.87 (1.78)	+0.13	

#### 4.3. Board directors' assessment of short-term effects of increased female board representation on board dynamics

##### 4.3.1. Research question 1 and corresponding hypothesis

To assess RQ1 two hierarchical three-step multiple regressions were calculated. These hierarchical multiple linear regressions were performed to investigate the effects of board directors' gender

(e.g., *H1*) and if the role within the board (e.g., *H2*) in predicting the attitude of board directors towards, on one hand, the statement “*With increased female board participation, in the wake of gender quota regulation, different viewpoints are now more thoroughly discussed in board meetings*”, on the other hand to the statement “*With increased female board participation, in the wake of gender quota regulation, board decision-making is improved*” after controlling for length of board membership on assessed board, the previous attitude toward gender quota regulation, and female representation (%) on the board. Three control variables were entered in Step 1: 1) *Attitude towards legislation*, 2) *Board tenure*, and 3) *Female ratio on the board*. In Step 2, the directors’ gender (0 = male, 1 = female) was entered in the regression (e.g., *H1*), and finally in Step 3, the directors’ role on the board (0 = member, 1 = chair) was entered in

the regression (e.g., *H2*). Intercor relations between the multiple regression variables were reported in Table 3 and the regression statistics in Table 5. None of the variance inflation factor (VIF) indicators move under 1, so we can assume that there is no correlation between a given predictor variable and any other predictor variables in the model.

A preliminary analysis was performed to ensure there was no violation of the assumptions. A sample size of 244 directors was deemed adequate, giving two independent variables and three control variables to be included in the analysis (Tabachnick & Fidell, 2018). The assumption of singularity was met, as well as the assumption of multicollinearity as tolerance and VIF were all within acceptable limits. Residual and scatter plots indicated that the assumptions of normality, linearity, and homoscedasticity were all satisfied.

**Table 5.** Hierarchical multiple regression for viewpoints and decision-making

	<i>Different viewpoints discussed</i>			<i>Improved decision-making</i>		
	<i>B</i>	$\beta$	VIF	<i>B</i>	$\beta$	VIF
<b>Step 1: Controlled for</b>						
Constant		4.169			3.169	
<i>Attitude towards legislation</i>	0.318	0.382***	1.05	0.305	0.368***	1.05
<i>Board tenure</i>	-0.264	0.199**	1.08	-0.213	-0.160**	1.07
<i>Female ratio on the board</i>	-0.199	-0.022	1.13	1.211	0.133*	1.12
R <sup>2</sup>		0.179***			0.209***	
F		15.676***			18.856***	
<b>Step 2: Gender</b>						
Constant		4.099			3.104	
<i>Attitude towards legislation</i>	0.288	0.346***	1.07	0.275	0.332***	1.07
<i>Board tenure</i>	-0.214	-0.162**	1.10	-0.164	-0.124*	1.10
<i>Female ratio on the board</i>	-0.909	-0.100	1.22	0.584	0.055	1.21
<i>Gender</i>	0.843	0.283***	1.17	0.285	0.285***	1.16
R <sup>2</sup>		0.248***			0.279***	
$\Delta R^2$		0.068***			0.070***	
$\Delta F$		19.453***			20.607***	
<b>Step 3: Board position</b>						
Constant		3.986			2.955	
<i>Attitude towards legislation</i>	0.302	0.364***	1.10	0.294	0.355***	1.08
<i>Board tenure</i>	-0.252	-0.190**	1.22	-0.209	-0.157**	1.21
<i>Female ratio on the board</i>	-0.942	-0.104	1.13	0.456	0.050	1.21
<i>Gender</i>	0.879	0.295***	1.17	0.899	0.300***	1.16
<i>Board position</i>	0.516	0.160**	1.05	0.640	0.199***	1.05
R <sup>2</sup>		0.272			0.317	
$\Delta R^2$		0.024***			0.038***	
$\Delta F$		7.104***			11.694***	
F		15.926***			19.637***	
N		219			218	

Note: \* = 0.05, \*\* = 0.01, \*\*\* = 0.001.

As can be seen in Table 5, the control variables contributed significantly to the regression model of *Different viewpoints*,  $F(3.215) = 15.676$ ,  $p < 0.001$ , and accounted for 17.9% of the variation. The control variables further contributed significantly to the regression model for *Improved decision-making*,  $F(3.214) = 18.856$ ,  $p < 0.001$ , and accounted for 20.9% of the variation. Introducing the *Gender* variable in Step 2 explained 24.8% of the variation in *Different viewpoints* and this change in  $R^2$  for 6.8% was significant,  $F(1.214) = 19.453$ ,  $p < 0.001$ . The same applies to the *Gender* variable entered in Step 2 for *Improved decision-making* where an  $R^2$  increase of 7.0% was significant,  $F(1.213) = 20.607$ ,  $p < 0.001$ . Finally adding the *Board position* variable into the *Different viewpoint* regression model explained an additional 2.4% of the variance, and this change in an  $R^2$  was also significant  $F(1.213) = 7.104$ ,  $p < 0.001$ . When all five variables were included in Step 3 of the regression

model for *Different viewpoints*, the control variable *Female ratio on the board* was no longer a significant predictor for the dependent variable. The most important predictors for *Different viewpoints* were previous positive attitude (0.364,  $p < 0.001$ ), being of female gender (0.295,  $p < 0.001$ ), being in the role of board chair (0.160,  $p < 0.01$ ), and having served a shorter time on the board (-0.190,  $p < 0.01$ ). Together all five variables accounted for 27.2% of the total variance in *Different viewpoints*. To conclude the analysis for the dependent variable *Improved decision-making*, the *Board position* variable was added into the regression model which explained an additional 3.8% of the variance, and this change in  $R^2$  was significant  $F(1.212) = 11.694$ ,  $p < 0.001$ . When all five variables were included in Step 3 of the regression model for *Improved decision-making*, the control variable *Female ratio on the board* was no longer a significant predictor for the dependent variable. The most

important predictors for *Improved decision-making* were previous positive attitude (0.355,  $p < 0.001$ ), being of female gender (0.300,  $p < 0.001$ ), being in the role of board chair (0.199,  $p < 0.001$ ), and having served shorter time on the board (-0.157,  $p < 0.01$ ). Together all five variables accounted for 31.7% of the total variance in *Improved decision-making*.

4.3.2. Research question 2 and corresponding hypothesis

To test RQ2 two three-step hierarchical multiple regressions were conducted, in which: on one hand

*Increased monitoring through holding CEO accountable* and on the other hand, *Improved corporate governance practices* as the dependent variables. Three control variables were entered in Step 1, *Attitude towards legislation*, *Board tenure*, and *Female ratio on the board*. In Step 2, the directors' gender (0 = male, 1 = female) was entered in the regression and finally, in Step 3, the directors' role on the board (0 = member, 1 = chair) was entered in the regression. Intero relations between the multiple regression variables are reported in Table 3 and the regression statistics are in Table 6.

Table 6. Hierarchical multiple regression for monitoring and corporate governance

	Increased monitoring			Improved corporate governance		
	B	$\beta$	VIF	B	$\beta$	VIF
<b>Step 1: Controlled for</b>						
Constant	2.837			3.647		
Attitude towards legislation	0.252	0.306***	1.05	0.190	0.231***	1.05
Board tenure	-0.136	-0.104	1.13	-0.231	-0.176**	1.13
Female ratio on the board	0.955	0.107	1.08	1.055	0.117*	1.08
R <sup>2</sup>	0.135***			0.120***		
F	11.098***			9.723***		
<b>Step 2: Gender</b>						
Constant	2.771			3.602		
Attitude towards legislation	0.231	0.280***	1.06	0.169	0.206**	1.07
Board tenure	-0.097	-0.074	1.10	-0.196	-0.149**	1.10
Female ratio on the board	0.403	0.045	1.22	0.541	-0.060	1.22
Gender	0.658	0.223***	1.16	0.596	0.201*	1.17
R <sup>2</sup>	0.178***			0.154**		
$\Delta R^2$	0.043***			0.034		
$\Delta F$	10.963***			8.677**		
<b>Step 3: Board position</b>						
Constant	2.634			3.452		
Attitude towards legislation	0.250	0.304***	1.07	0.189	0.230***	1.08
Board tenure	-0.154	-0.117	1.22	-0.241	-0.184**	1.22
Female ratio on the board	0.352	0.039	1.14	0.484	0.054	1.13
Gender	0.703	0.238***	1.17	0.646	0.218***	1.18
Board position	0.729	0.228***	1.06	0.651	0.205***	1.06
R <sup>2</sup>	0.227			0.194***		
$\Delta R^2$	0.049**			0.040		
$\Delta F$	13.401***			10.448***		
F	20.547***			10.213***		
N	219			218		

Note: \* = 0.05, \*\* = 0.01, \*\*\* = 0.001.

As can be seen in Table 6, the control variables contributed significantly to the regression model of monitoring,  $F(3.213) = 11.098$ ,  $p < 0.001$ , and accounted for 13.5% of the variation. The control variables further contributed significantly to the regression model for *Improved corporate governance practices*,  $F(3.214) = 9.723$ ,  $p < 0.001$ , and accounted for 12% of the variation. Introducing the *Gender* variable in Step 2 explained 17.8% of the variation in *Increased monitoring* and this change in an  $R^2$  for 4.3% was significant,  $F(1.212) = 10.963$ ,  $p < 0.001$ . The same applies to the *Gender* variable entered in at Step 2 for *Improved corporate governance practices* where an  $R^2$  increase of 3.4% was significant,  $F(1.213) = 8.677$ ,  $p < 0.005$ . Finally adding the *Board position* variable into the *Increased monitoring* regression model explained an additional 4.9% of the variance, and this change in an  $R^2$  was also significant  $F(1.211) = 13.401$ ,  $p < 0.001$ . When all five variables were included in Step 3 of the regression model for *Increased monitoring*, the control variables *Female ratio on the board* and *Board tenure* were no longer significant predictors for the dependent variable. The most important predictors for *Increased monitoring* were

previous positive attitude (0.304,  $p < 0.001$ ), being of the female gender (0.238,  $p < 0.001$ ), and being in the role of board chair (0.228,  $p < 0.001$ ). Together all five variables accounted for 22.7% of the total variance in *Increased monitoring*. To conclude the analysis for the dependent variable *Improved corporate governance practices*, the *Board position* variable was added into the regression model, which explained an additional 4.0% of the variance, and this change in an  $R^2$  was significant  $F(1.212) = 10.448$ ,  $p < 0.001$ . When all five variables were included in step 3 of the regression model for *Improved corporate governance practices*, the control variable *Female ratio on the board* was no longer a significant predictor for the dependent variable. The most important predictors for *Improved corporate governance practices* were previous positive attitude (0.230,  $p < 0.001$ ), being of female gender (0.218,  $p < 0.001$ ), being in the role of board chair (0.205,  $p < 0.001$ ), and having served shorter time on the board (-0.184,  $p < 0.01$ ). Together all five variables accounted for 19.4% of the total variance in *Improved corporate governance practices*.



## 5. DISCUSSION

The importance of gender diversity for effective board functioning has gained research momentum in recent years. The gender diversity issue has further been discussed and debated in politics, business, and general media, where there now seems to be a consensus that diversity of the board can prove beneficial for utility, equality, and business case reasons (Jonty & Mokoaleli-Mokoteli, 2015; Mensi-Klarbach et al., 2017; Campbell & Minguez 2010; Lückerrath-Rovers, 2011; Saggese et al., 2021). Underrepresentation of women on corporate boards worldwide has therefore ignited discussions about the various means to close the gender gap in the boardroom. Ranging from the more frequent soft measures approach, such as a “comply-or-explain” approach to the less frequent hard approach of corporate gender quotas (Mensi-Klarbach et al., 2017; Terjesen & Sealy, 2016).

This study addressed the challenge of directly assessing directors’ perception of the effects on board key functioning and dynamics the forced gender quotas are having on their perspective boards. The study is therefore one of few investigations of the reported experience of both female and male board directors regarding group dynamics in the wake of gender quota regulation. By gathering data directly from directors through multiple means, the authors seek to open the ‘black box’ of the board.

The research’s findings indicate that post-gender quota regulation has led to more discussions on different perspectives around the board table and improved decision-making, hence supporting research question one, and this was significantly more reported by board chairs and female directors. Another reported consequence is that the boards are engaged in more thorough monitoring and are holding the CEO more accountable and using improved corporate governance practices, hence supporting research question two. The quotas’ major benefit, reported by both female and male participants, is increased awareness and discussion about the importance of board diversity and how diversity needs to be explored beyond the gender definition.

The empirical data presents a favorable reaction from business leaders, many of whom have changed their perception towards the gender quota when realizing its positive impact on board dynamics and the benefits of greater diversity. The twofold role of the board (strategic and monitoring) has in the opinion of the interviewees been strengthened after the post-2013 influx of women onto boards. The long-term effect remains to be seen. The short-term effect has been increased discussion of the role of the board and board effectiveness. That type of increased attention to sound governance practices should impact the firm’s performance in a positive way as well as generate a positive reaction at the societal level.

By implementing the gender quota, boards have been forced to re-think and re-assess their norms and processes, and increase diversity, which hopefully will lead at the end to firm culture change, improved decision making and company performance, as several experts and proponents of corporate governance reform have argued (Saggese et al., 2021; Lückerrath-Rovers, 2013; Campbell &

Minguez, 2010; Benkraiem et al., 2017; Adams & Ferreira, 2009; Forbes & Milliken, 1999) and which this study supports.

## 6. CONCLUSION

This study aimed to research the attitudes of board members, that recently experienced drastic changes in board composition due to board gender quota legislation, to board dynamics. In the study, a total of 244 board directors pondered if increased female participation on the board had led to changes in different viewpoints more thoroughly discussed in board meetings, decision-making had improved, if the board holds the CEO more accountable than before, and if more attention is given to corporate governance practices. This study extends the board diversity literature by exploring the extreme case of Iceland hence answering the call for single-country studies (Boshanna, 2021), and by applying a richer data collection method of a questionnaire (Mun & Jung, 2018) among board directors.

The findings show that the initial attitude towards gender quotas was more negative among male directors than female directors but became more similar and positive over time. Strong support is found for increased female board participation leading to different viewpoints being discussed at the board table in addition to better decision-making. A similar picture emerges regarding the behavior of holding CEOs accountable and being more focused on corporate governance practices.

These results were significantly the view of female directors and directors chairing the assessed board. Male directors are more negative than their female counterparts about the short-term effect of increased female participation is having on board dynamics. The policy implication is that an aggressive regulation such as Law 13/2010 on gender quotas requires political consensus, as well as support at the societal level. The economic crisis that Iceland went through led to much more than discussion and soft initiatives toward greater gender diversity at corporate boards, despite Iceland being a country that has valued gender equality at the societal level. Other countries that didn’t feel the urgency of implementing new business practices using hard public policy measures such as gender quotas have not seen any change in gender balance at the corporate board level.

This study has several limitations, for example, it is a single county study and measurement conducted at one point in time. Hence it is important to measure both if perceptions have changed over time and if findings can be generalized to other counties. Taken together, the role of boards for supervision and policymaking has been strengthened with the introduction of gender quotas at corporate boards. However, in the run-up to the regulation, there were voices of doubt that this could be the result. The EU seems to have concluded that a gender quota can be of various positive use and has put forward the same arguments as mentioned above in the case of Iceland. It will be interesting to observe whether the experience of other EU countries will be comparable to that of Iceland, although the intervention there will not be as strong as it was in Iceland.

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