

ERASMUS UNIVERSITY ROTTERDAM

Erasmus School of Economics

***BOARDROOM DIVERSITY QUOTA:
EFFECT ON GENDER PAY GAP***

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MSc Accounting and Finance (Full-Time)

Year: 2022-23

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Contents

- Abstract 1
- Introduction 1
- 1. Literature Review..... 3
 - 1.1. Board Diversity..... 3
 - 1.2. Gender Pay Gap..... 4
 - 1.3. Gender Diversity Quotas around the world..... 4
 - 1.4. Gender Diversity Quota in California 5
 - 1.5. Effect of Gender Diversity Quota on Gender Pay Gap 6
- 2. Hypothesis..... 7
- 3. Data Collection and Methodology 8
 - 3.1. Data Collection 8
 - 3.2. Dependent Variable 9
 - 3.3. Independent Variable..... 9
 - 3.4. Methodology..... 9
- 4. Results and Discussion 11
- 5. Conclusion 14
- 6. References..... 14

Abstract

This paper examines the effect of gender diversity quota on the gender pay gap in California domiciled companies for the period between 2014 and 2021. The data in the study relates to all the publicly listed companies headquartered in California that are affected by the introduction of boardroom gender diversity quota SB-826. The data set used for the analysis in the study is sorted and created manually as a ready-to-use dataset was not available for the Californian companies. The empirical results obtained in the study indicate that mandatory boardroom diversity quota has increased the gender pay gap in the boardroom.

Introduction

The diversity on the Board of Directors (BoDs) and gender pay-gap have been long discussed topics and have been addressed in various academic literature over time. These topics have gained further importance in the last decade. Having diversity on the Board of Directors improves the scope and discussions in the boardroom (Hillman et al., 2007). Further, diversity on the board improves the financial performance of the company (Carter et al., 2003), and has a positive impact on ESG score of a company (Manita et al., 2018).

Even though diversity entails various facets like age, gender, culture, race, religious beliefs, etc, this thesis focuses on gender diversity in specific as in 2018 California introduced a new gender diversity quota in the boardroom. Having women on the board improves the earning quality by improving monitoring (SRINIDHI et al., 2011). Further, Kim & Starks (2015) in their studies find that having women on the board diversifies the expertise more as compared to men. Adams and Ferreira (2009) find that having more women on the board improved the attendance of male directors in the board meeting. Terjesen et al. (2016) finds that firms with more diverse Board of Directors perform better by both market and accounting measures.

To increase board gender diversity, laws are being implemented by governments all over the world. In 2003 Norway was the first country to introduce a law regarding gender diversity on the Board of Directors, with the law requiring all public firms to have at least 40% of women on their Board of Directors (Ahern & Dittmar, 2012). In September 2018, California became the first state in the United States to mandate a law, Senate Bill 826, regarding gender quota on the Board of Directors (Greene et al., 2020). The law is focused on increasing diversity on the Board of Directors, requiring publicly held companies headquartered in California to have at least one woman on the board by the end of 2019. This bill was introduced to incentivize and promote gender diversity on the Board of Directors. Senate Bill 826 (2018) claims that the implementation of the bill will “boost the California economy and improve opportunities for women in the workplace”. However, previous studies conducted on the stock market reaction on the date of signing the law SB-826 find that firms headquartered in California experienced a large negative stock market reaction at the signing of the law. These studies also find that this reaction is stronger for firms that were required to add a female member to the Board of

Directors (i.e., firms headquartered in California) compared to the firms headquartered in other States in the US (Greene et al., 2020).

The main purpose of the law was to increase gender diversity on the board and to reduce the gender pay gap within the board, by increasing the demand for female board members (Xu, J. 2018). This is a big issue that regulators and government institutions across the world have been trying to solve for a while. Women contribute to nearly half of the world's population but there is still a significant gender pay gap between men and women (Homroy & Mukherjee, 2021). Further, Homroy & Mukherjee (2021b) in their studies find that there is a significant raw gender pay gap present in France, the US, Canada, Hong Kong, and Malaysia. This gap widens as we move up the corporate ladder. The gender pay gap is insignificant in entry positions and managerial positions but increases drastically as we move up to the board members (Geiler & Renneboog, 2015). The quotas introduced by the government are intended to break this ceiling and employ more women in board positions, thereby increasing women representation on the boards. However, another important question arises here: Do these quotas also help to decrease the gender pay gap at the board level? Reberioux, A. and Roudaut, G. (2019) find that the gender pay gap increased in France after the quota. Marisetty and Prasad (2022) also find similar results in India. However, Schoonveld, R.G. (2020) in their research on Norway find that the quota helped to decrease the gender pay gap at the corporate executive level.

As stated earlier, a considerable amount of literature on the effect of boardroom diversity quota on gender pay gap has been written in the past. However, most of this literature relates to the study of this phenomenon in different countries in Europe. No paper has been written which studies the effect of implementation of boardroom diversity quota on the California headquartered companies. This paper aims to fill this gap by addressing the same.

In this thesis, I use the Blinder-Oaxaca decomposition test to examine the hypothesis that the boardroom diversity quota widens the gender pay gap. The method developed by Blinder (1973) and Oaxaca (1973) allows me to divide the gender pay gap into two parts. First, the explained part, caused due to observable differences such as education and experience. Second, the unexplained part, which is generally considered discrimination against minority groups due to bias or preference. In this study, I only use firms headquartered in California for the test as the quota law only affected these companies. This gives me a total of 4,809 observations. The study finds that before the quota was introduced, the gender pay gap of 0.37 log points existed in these firms. However, this gender pay gap increases to 0.44 log points after the quota is introduced in California.

This paper contributes to the current debate on effectiveness of quotas to promote women. There are studies on the effectiveness of boardroom quotas, but they focus more on the firm's performance and stock market reaction because of the quota. This paper also contributes to the current literature on the gender pay gap by studying the effect of mandatory boardroom diversity quota.

The remainder of the paper is organized as follows: Part 1 provides the literature review for the various academic papers written on impact of board diversity on company performance, existence of gender pay gap in corporations and the impact of boardroom diversity quota on the gender pay gap. Part 2 provides details about the data and methodology used in the study. Part 3 describes the results of the analysis and Part 4 is the conclusion.

1. Literature Review

In this chapter, I will provide existing literature related to the effect of boardroom diversity quota on gender pay gap in California domiciled companies. I first start by explaining the general impact of board diversity on various facets of a company's operation. In the next section, I stipulate the previous studies done on the existence of gender pay gap in corporations. Thereafter, I enlist the various gender diversity quotas implemented by different countries around the world and the studies done to evaluate their impacts on the business performance. In the fourth section, I introduce the law related to the boardroom diversity quota in California. Finally, in the last section, I state the previous studies which have evaluated the impact of boardroom diversity quota on the gender pay gap in other countries.

1.1. Board Diversity

The diversity on Board of Directors has been a long-discussed topic in corporate governance. The Board of Directors has a crucial role in the success or failure of the company as all the major decisions are taken by them which affects the performance of the company. As per agency theory, the Board of Directors are agents of the shareholders and work to maximise the wealth of the shareholders (Jensen & Meckling, 1976). Previous studies find that increasing diversity on the board has a positive correlation with firm performance and shareholder wealth (Carter et al., 2003) (Krishnan & Park, 2005) (Campbell & Mínguez-Vera, 2007). Bernile et al., (2018b) find that firms with high board diversity have high research and development expenditure and are more innovative. Cumming et al., (2015) finds that increasing number of women on the board decreases frequency of fraud and decreases the severity of frauds. Bernile et al., (2018b) find that diversity on the board reduces the risk profile by bringing more conflicts in decision-making. SRINIDHI et al., (2011) find that diversity on the board increases monitoring, which results in better earning quality and decreases earning management.

Increasing gender diversity on the board has a positive effect on the ESG score of the companies, which helps investors in decision-making (Manita et al., 2018). Their study on the effect of diversity on ESG scores finds that companies that have high diversity are also high on ESG scores as it leads to better ESG disclosures. ESG scores have a positive impact on the cost of capital - companies with high ESG scores can get debt at a lower rate and the risk for future fines with regards to ESG factors decreases for investors (Gupta, 2015).

1.2. Gender Pay Gap

The gender pay gap refers to the difference in remuneration between men and women keeping all the other factors constant (Blau & Kahn, 2007). The gender pay gap has been discussed quite extensively and a lot of measures are taken to decrease this gap. Historically the gender pay gap existed as women had lower human capital than men - human capital refers to “knowledge, skills, and experience” (Manning & Swaffield, 2008). Lower human capital resulted in lower productivity at work which resulted in lower wages for women. However, with development in society and government policies, this has now changed (Blau and Khan, 2016). Töpfer et al., (2023) find that the gender pay gap is not due to educational qualification, as in their findings they find that women are more qualified than men but lack the professional experience due to lack of opportunities. In their research, they find that women are paid significantly less than men for the same educational level.

However, when it comes to senior positions, Bertrand et al., (2018) find that there is a “glass ceiling” for females in the corporate ladder which is the main reason for the gender pay gap among senior positions. Leibbrandt et al., (2015) in their study find that women tend to bargain less than men for the same job, and with qualifications, women negotiate less than men for the position which is another problem for the gender pay gap. Reshi et al., (2023) in their research find that in the countries where women’s education has more importance, acceptance of women working in more and more culturally diverse have significantly decreased the gender pay gap as women receive the same opportunities in these countries as men.

1.3. Gender Diversity Quotas around the world

Women constitute around half of the world's population but only represent 31.3 percent in the boardroom (MSCI, 2022). There is a “glass ceiling” when it comes to the boardroom position for women (Matsa and Miller, 2013). To decrease this gap, one measure that governments all around the world are undertaking is to introduce gender diversity among the board members to appoint more women to the top management (Bertrand et al., 2018).

To understand the effect of a gender diversity quota, it is important to have a clear understanding of this quota. A gender diversity quota on the Board of Directors means that there is a certain percentage of seats reserved for women candidates (Kogut et al., 2013). This percentage changes as per the quota in the respective countries. Norway was the first country to introduce diversity law in 2003, where they implemented a quota on the Board of Directors to have at least 40% women on the board (Adams, R. B., & Ferreira, D. 2009). This was followed by different European countries like Spain, Germany, France, Italy, Belgium, the Netherlands, and some Asian countries such as India and United Arab Emirates (MSCI, 2022). California was the first state in the United States to introduce a gender diversity quota on board members in 2018 (Greene et al., 2020). The main aim of the gender diversity law is to increase women’s representation on the board and to decrease the gender pay gap on the corporate Board of Directors by increasing the demand for female board members (Xu, J. 2018).

Table 1

Gender diversity regulation on Board of Directors

Country	Mandatory Quota	Year Passed	Quota
Norway	40%	2003	
Spain	40%	2007	
Finland	1 female director	2010	
Iceland	40%	2010	
France	40%	2011	
Belgium	33%	2011	
Portugal	20%/33.3%	2017	
India	1 female director	2013	
Germany	30%	2016	
Sweden	40%	2016	
U.S., California	Depends on board size	2018	
Greece	25%	2020	
Italy	40%	2020	
Netherlands	33%	2021	
UAE	At least 1	2021	

This table summarises the different gender diversity quotas introduced in different countries to increase women representation in the boardroom

In the research conducted by Adams, R. B., & Ferreira, D. (2009), they find that the quota significantly improved the performance of firms with weak corporate governance, as an increase in women representation on the board increased monitoring. However, the firms with strong corporate governance had a negative effect on the performance after the quota was implemented. In their research, they also find that this negative firm performance was caused due to over monitoring. Further, the research conducted by Schoonveld, R.G. (2020) on Norway and France finds that the participation of women in boardrooms increased significantly in both countries after the quota was implemented. The result is more pronounced for non-CEO Board of Directors.

1.4. Gender Diversity Quota in California

In 2018, California was the first state in the United States to mandate a gender diversity quota on Board of Directors of companies headquartered in California (Greene et al., 2020). On 30 September 2018, Governor Brown signed the law Senate Bill 826, and it came into effect. The law mandated every public company headquartered in California to have at least 1 woman on the Board of Directors by 2019 and by 2021 to meet the following conditions (Senate Bill 826, 2018)

- Board of more than six to have at least 3 women on the Board of Directors
- Board of five to have 2 women on the Board of Directors
- Board of four or fewer to have at least 1 woman on the Board of Directors

This means that all the companies in that country must follow this law and employ a minimum number of women on the Board of Directors, failing to which will result in a fine (Senate Bill, 826). The law regarding board diversity was challenged in court by plaintiffs, Robin Crest, Earl De Vries, and Judy De Vries against defendant Alex Padilla – Secretary of the state of the State of California in 2019 (Crest v. Padilla I) for the first board diversity law SB 826. The plaintiffs filed the case as they wanted to stop the State from using taxpayers' money to ensure law regarding board diversity was followed by the companies headquartered in California. The plaintiffs in their motion argued that these laws violated the equal protection clause, Article I, Section 7(a), of the California Constitution. On May 13, 2022, SB 826 was also struck down (Crest v. Padilla II, 2022) by the court as the motion was ruled in favour of the plaintiffs as the state was unable to provide evidence to support their motion.

There are other laws that have been introduced regarding board diversity but the difference between those laws and SB 826 is that those laws are introduced to increase transparency on board diversity and does not provide any quota for certain group on the Board of Directors. SB 826 enforced companies to have quotas on the Board of Directors or else they must pay a fine. The major law, Nasdaq's Board Diversity Rule, to increase transparency on the Board of Directors was introduced in August 2021 in the United States, requires all the companies listed on the US stock exchange to publicly disclose board diversity data in the template provided. If they do not reach the quota of board diversity, they must explain the reason (Nasdaq Rule 5605, 2021).

1.5. Effect of Gender Diversity Quota on Gender Pay Gap

Previous studies on the effect of gender board diversity quotas on gender pay gap do not come to a common conclusion. Marisetty and Prasad (2022) conducted their research on the Indian market. India introduced a law on Board gender diversity in 2013, the Companies Act 2013, which required all companies to have at least one woman on the board. In their research, they find that there is a significant increase in the gender pay gap after the implementation of the quota. Rebérioux, A. and Roudaut, G. (2019) in their research on French market found similar results as India - there is a significant increase in the gender pay gap after introduction of the quota in France. However, Schoonveld, R.G. (2020) conducted research on the Norwegian market and find that after the quota was introduced for boardroom gender diversity, there is no significant gender pay gap (i.e., the quota helped reduce the raw gender pay gap). This makes it difficult to conclude whether implementing a quota on board members is beneficial to decrease the gender pay gap.

Overall, from the various papers written, it can be concluded that having diversity on the Board of Directors of a company is generally beneficial for the overall operations and governance of the organisation. Further, having higher female representation on the Board of Directors helps to increase monitoring, effectiveness, financial performance and ESG performance of the company. The previous studies also clearly show the existence of gender pay gap in organisations and the impact of boardroom diversity quota on the gender pay gap in different countries. However, no papers have been written on the impact of the boardroom diversity quota

passed by Californian government in 2018 on the companies domiciled in the state. Hence, the aim of this study is thus to try and fill this gap and provide an answer for the impact the boardroom diversity law had on the Californian companies.

2. Hypothesis

Governments all around the world are trying to increase gender diversity by introducing boardroom laws. This leads to a natural question about the efficiency of introducing a quota to increase diversity. Previous researchers focus on the effect of the quota on company's financial performance and shareholder's reaction to this quota (Greene et al., 2020). In this thesis, I study how the quota affects compensation of women in the boardroom by studying the effect of the diversity quota on gender pay gap.

In this thesis, I study whether the law led to an increase in the gender pay gap for companies headquartered in California. Due to the implementation of Senate Bill 826, the companies headquartered in California were presented with two options - either to meet the requirements of the law or to pay a monetary fine for non-compliance. The non-compliance with the law not only has a financial loss in fine but also results in a reputational loss which leads to a negative stock market reaction.

Companies can meet the requirements of this quota through different strategies. They can either replace the current male board member with a new female board member, or they can hire a new female board member to the current board. As can be seen from the studies done in different European countries, the cost to replace the current a board member with a new board member is very high (Greene et al., 2020). Further, due to the implementation of the mandatory quota, there is a sudden increase in demand for female board members in the market and the supply of qualified candidate is limited (Greene et al., 2020).

The implementation of the Board quota law can have two effects on the labour market in California. First, it can lead to a situation of excess demand for qualified women, resulting in an increase in the pay for women, thereby leading to a decrease in the gender pay gap. The second effect could be the hiring of more unqualified female board members with less experience and expertise. Marisetty and Prasad (2022), Rebérioux, A. and Roudaut, G. (2019) and Schoonveld, R.G. (2020) conducted a study in India and France and find that the quota led to an increase in gender pay gap. Based on the mechanism explained and the results found by previous studies, this paper argues that the mandatory boardroom quota will increase the gender pay gap:

H1: *The introduction of a mandatory boardroom gender quota leads to an increase in gender pay gap.*

3. Data Collection and Methodology

3.1. Data Collection

In this section, I will give more details on the data collected for this thesis. For this thesis, the sample is limited to companies that are headquartered in California and must comply with all the requirements of SB-826. The period selected for this thesis is 8 years from 2014 -2021. As the law was passed in 2018, I have taken the data for 4 years prior to the quota implementation and for 4 years post quota implementation. The sample data studied in this paper is collected from BoardEX using the Wharton Research Data Service. The data collected using BoardEX include board member’s qualifications, salary, total compensation, time in the company, and board member’s age but does not have the gender information in the data set. For this, the Director ID is matched with another dataset to get the gender of the board member. Further, the firms with missing values for total compensation are dropped from the sample data. This criterion leads to a total of 4,808 observations – 2,297 before the boardroom quota was introduced (consisting of 1,846 male board members and 451 female board members) and 2,511 after the boardroom quota was introduced (consisting of 1,819 male board members and 692 female board members).

Table 2
Description of regression variables

Variable	Definition	Source
Male	Dummy variable equal to 0 if board member is male	Own calculation
Female	Dummy variable equal to 1 if board member is female	Own calculation
NoQuals	Number of qualifications earned by a board member such as degrees, professional qualifications, etc.	BoardEx
LnAge	Natural Logarithm of Age of the board members	Own calculation
TimeInCo	Tenure of board member in the company	BoardEx
LnTotalComp	Natural logarithm of total compensation earned by the board member	Own calculation
%WOB	Percentage of Women on the board, this is calculated by dividing total number of women on board by total number of board members.	Own Calculation
Time in Role	Number of years in the current role as board member	BoardEX

3.2. Dependent Variable

Following Reberiou, A. and Roudaut, G. (2019) and Marisetty and Prasad (2022) I use natural logarithm of total compensation earned by a board member as the outcome variable. As a major part of the remuneration earned by board members is in stocks, the total compensation is taken to include the salaries and remuneration earned in stocks. This allows me to study the gender pay gap by comparing total compensation earned by male board members and female board members. In this thesis, I use the natural logarithm of total compensation as the dependent variable. LnTotalComp represents the natural logarithm of total compensation in the results.

3.3. Independent Variable

Following previous studies on gender pay gap by Marisetty and Prasad (2022), Reberiou, A. and Roudaut, G. (2019) and Blau and Khan (2016), I use the Directors gender, Natural logarithm of director's Age, Time in company and Number of qualifications as independent variables. These individual board member characteristics show the knowledge and experience of the board member and hence allow to study the difference due to human capital (Blau and Khan 2016). A dummy variable for Gender is created that takes a value of 1 if the board member is a female and 0 if the board member is a male. LnAge is the natural logarithm of board member age. NoQuals represents the number of qualifications a board member has attained. TimeInCo is the number of years the board member has been a part of the company.

3.4. Methodology

In this section, I will explain the methodology used to test the hypothesis defined in the earlier section. The study uses the Blinder Oaxaca decomposition test to study the effect of quota on the gender pay gap. This test allows me to divide the gender pay gap into two parts, one that is caused due to observable differences such as based by qualification, experience, etc. and the balance is the unexplained part, which also includes all the omitted observable variables. The unexplained part is generally considered as discrimination between the two groups in remuneration (Blinder 1973, Oaxaca 1973).

Blinder Oaxaca is a widely used methodology to study the gender pay gap and is used extensively in previous research to study the difference between two groups of people (Blau & Kahn, 2017) (Marisetty and Prasad, 2022) (Reberiou and Roudaut, 2019) (Töpfer et al., 2023). This method is used to understand the difference in the gender pay gap. To study the effect of boardroom quota on the gender pay gap, this study converts the dataset into two parts – pre 2018, to study if there is a significant gender pay gap before the boardroom diversity quota is introduced and post 2018, to study if there is a significant gender pay gap after the boardroom quota is introduced.

To measure the gender pay gap, Blinder Oaxaca first requires two linear regressions to calculate total compensation for males and females.

$$S_{male} = \beta_{male} X_{male} + E_{male} \quad (1)$$

$$S_{Female} = \beta_{female} X_{female} + E_{female} \quad (2)$$

In the above equation, S refers to the average salary of the board member. In my thesis, I use the logarithm of total compensation in this equation for both males and females. X_{Male} and X_{Female} refers to the individual observable characteristics of the board members that affect their salaries. β_{Male} and β_{Female} refer to the coefficients of these observable characteristics, this will show the effect of these observable characteristics on the board member's salary.

The next step is to calculate, the gender pay gap based on equation 1 and equation 2. The Blinder Oaxaca decompose method defines the model to calculate gender pay as

$$S_{Male} - S_{female} = (X_{male} - X_{female}) \beta_{male} + X_{female} (\beta_{male} - \beta_{female}) \quad (3)$$

The above equation (3) can be divided into two parts, part one $(X_{male} - X_{female}) \beta_{male}$ which shows the explained part of the gender pay gap, and part two $X_{female} (\beta_{male} - \beta_{female})$ which shows the unexplained part of the gender pay gap. Blinder Oaxaca defines the explained part as $(X_{male} - X_{female}) \beta_{male}$, this means that there is no discrimination based on gender and the gender pay gap is the result of the observable characteristics of the board members. In the first part of the equation (3), the difference of observable characteristics is multiplied by β_{male} , this will show the increase in salary for female board members if they have the same characteristics as male board members.

The second part of equation (3) $X_{female} (\beta_{male} - \beta_{female})$ is defined as the unexplained part of the gender pay gap (Blinder 1973, Oaxaca,1973). This means that there is discrimination based on the gender of the board member that is not explained by the individual board member characteristics. In this equation, the difference of coefficients is multiplied by X_{female} which is characteristic of female board members to calculate the change in the compensation of female board members if the coefficient of male board members is applied to them. However, it is important to know that there is a limitation of this method that the unexplained part also includes the effect due to omitted variables. This means that if there are other variables that cause the gender pay gap that are not taken into consideration of board member characteristics and firm characteristics they will be included in unexplained positions.

4. Results and Discussion

In this section, I will show my results for the effect of boardroom diversity on the gender pay gap. As discussed in the methodology, the data is divided into 2 parts, the pre-quota period (2014 – 2017) and the post-quota period (2018 – 2021).

Table 3 presents the descriptive statistics of all the board member characteristics used in this thesis. There is no change in the total compensation of female board member in in the pre-quota period and post-quota period, whereas total compensation for male board members increased in the post-quota period from 298.32 to 371.37. This means that the quota further increased the gender pay gap by increasing the compensation earned by male board members. In the pre-quota period, women's representation on the board is 19.67 %. This increased to 27.56 % in the post-quota period. This result is in line with Rebérioux, A. and Roudaut, G. (2019), Marisetty and Prasad (2022) and Greene et al., (2020) that the quota led to an increase in women's representation in the boardroom. Number of qualifications for male board members did not change in the pre-quota period and post-quota period but for female board members, it decreased from 2.26 in the pre-quota period to 2.20 in the post-quota period. This shows that less qualified women were hired in the post-quota period to meet the requirement of the law. This result is the same as found by Rebérioux, A. and Roudaut, G. (2019) in their research.

Table 3
Descriptive Statistics

VARIABLES	Pre-Quota		Post-Quota	
	Male	Female	Male	Female
Observations	1846	451	1819	692
%WOB		19.67		27.56
Total Compensation	298.32	197.12	371.37	198.23
Age	69.89	66.72	65.88	63.00
Number of Qualification	2.26	2.27	2.26	2.20
Time in Company	10.96	6.25	10.19	5.35
Time in Role	7.26	5.49	6.37	4.61

This table presents the summary statistics of board member characteristics in the pre-quota and post-quota period for male and female board members. Pre-Quota period is from 2014-2017. Post-Quota period is from 2018-2021. %WOB refers to the percentage of women in boardroom. Age is average board member age. Total compensation is the average total compensation earned by a board member. Number of qualifications is the average of number of qualifications a board member holds. Time in company is the average tenure of board member with the company. Time in role is the average tenure as board member. Total compensation is measured in thousands of dollars.

Table 4 shows the result of the Blinder-Oaxaca decomposition test for the pre-quota period with natural logarithm of total compensation as dependent variable. There is a significant gender pay gap of 0.37 log points, this corresponds to $\{\exp(0.37)-1\} \times 100 = 45\%$. This means that female board members in the companies headquartered in California earn 45% less than male board members. This 45% can be further decomposed into explained and unexplained parts of the gender pay gap. Explained part contributes to 0.17 log points, this corresponds to 46% of the gender pay gap i.e., 20.7%. This means that 20.7% of the gender pay gap is due to observable differences such as board member age and time in the company. The unexplained part contributes to 0.20 log points, which corresponds to 54% of the gender pay gap i.e., 24.3%. This means that female board members are paid 24.3% less in California when compared to male board members with the same individual characteristics.

Table 4
Blinder-Oaxaca Decomposition Analysis: Pre-Quota Period

VARIABLES	LnTotalComp	Explained	Unexplained
Males	4.94 *** (0.02)		
Females	4.57** * (0.04)		
Difference	0.37*** (0.05)	0.17*** (0.02)	0.20*** (0.05)
lnAge		-0.10*** (0.01)	-6.42*** (2.22)
NoQuals		0.00 (0.00)	0.16 (0.11)
TimeInCo		0.27*** (0.02)	0.02 (0.05)
Constant			6.44*** (2.22)
Observations	2297		
Male	1846		
Female	451		

This table provides the result of the Blinder Oaxaca decomposition test conducted for the pre-quota period i.e., 2014 – 2017 for the companies headquartered in California with dependent variable as LnTotalComp. Gender pay gap is presented by “Difference”. LnTotalComp is natural logarithm of total compensation. LnAge is natural logarithm of board member age. NoQuals is the number of qualifications of a board member. TimeInCo is the number of years a board member has served the company. *** p < 0.01, 1% significance value. ** p < 0.05, 5% significance value. * p < 0.10, 10% significance value.

Table 5 presents the results of the Blinder Oaxaca decomposition test for the post-quota period with natural logarithm, of total compensation as dependent variable, the results are similar to the pre-quota period, but the gender pay gap in the post-quota period has increased to 0.44 log points, which corresponds to $\{\exp(0.44)-1\} \times 100 = 55\%$. This means that in the post-quota period there is a gender pay gap of 55% in the boardroom. This can be further divided into

explained part and unexplained part of the gender pay gap. Explained parts contribute to 0.20 log points, which corresponds to 45% of the gender pay gap i.e., 24.75%. This means that in the post-quota period, 24.75% of the gender pay gap is due to observable differences. The unexplained part in the post-quota period has increased to 0.24 log points, which corresponds to 55% of the gender pay gap i.e., 30.25%. This means that in the post-quota period, female board member earns 30.25% less than male board members with same observable characteristics, this difference is due to gender-based discrimination.

However, it is important to note that the unexplained part can also include the other characteristics that can be the reason for the gender pay gap but were not included as independent variable in this thesis.

Table 5

Blinder-Oaxaca Decomposition Analysis: Post-Quota Period

VARIABLES	LnTotalComp	Explained	Unexplained
Males	5.00 *** (0.03)		
Females	4.56** * (0.03)		
Difference	0.44*** (0.04)	0.20*** (0.02)	0.24*** (0.04)
lnAge		-0.07*** (-0.01)	-8.85*** (1.63)
NoQuals		0.00 (0.00)	-0.04 (0.08)
TimeInCo		0.27*** (0.02)	0.20*** (0.05)
Constant			8.93*** (1.64)
Observations	2511		
Male	1819		
Female	692		

This table provides the result of the Blinder Oaxaca decomposition test conducted for the post-quota period i.e., 2018 – 2021 for the companies headquartered in California with dependent variable as LnTotalComp. Gender pay gap is presented by “Difference”. LnTotalComp is natural logarithm of total compensation. LnAge is natural logarithm of board member age. NoQuals is the number of qualifications of a board member. TimeInCo in the number of years a board member has served the company. *** p < 0.01, 1% significance value. ** p < 0.05, 5% significance value. * p < 0.10, 10% significance value.

These results from table 4 and table 5 conclude that in the post-quota period, the gender pay gap increased from 45% to 55% due to the introduction of the mandatory boardroom gender diversity quota. Number of qualifications does not have a significant effect on the gender pay gap both in pre-quota and post-quota period, which is consistent with the finding of Blau and Khan (2016). The results from these tests are in line with my hypothesis, that boardroom gender diversity quota leads to an increase in the gender pay gap. This result is the same as found by

Marisetty and Prasad (2022) Reberieux and Roudaut (2019) in their research on the effect of quota on gender pay gap in India and France.

5. Conclusion

In the past 20 years, several countries around the world have adopted a mandatory gender-based boardroom quota. In this thesis, I study the effect of boardroom diversity quota on gender pay gap in companies headquartered in California for the period between 2014 and 2021. Contrary to the findings of Schoonveld, R.G. (2020) on the effect of quota on gender pay gap in Norway, I find that the boardroom diversity quota leads to an increase in the gender pay gap on the board. However, my findings are consistent with the findings of the research done by Marisetty and Prasad (2022) on the Indian companies and with Reberieux, A. and Roudaut, G. (2019) with their research on the French companies.

The results obtained in my research have a few limitations and drawbacks. One shortcoming of the paper is the limited number of companies used in the study. This is because of the limited publicly available board compensation data for California domiciled companies. If more companies could be added to the data set in the future studies, it could provide a more in-depth view on the effect of boardroom diversity quota on gender pay gap in California. Another limitation of this thesis is that I only include the human capital theory for computing the explained part of the gender pay gap. However, there can be other factors as well that cause the gender pay gap. For future research, this thesis can be expanded by including other individual board member characteristics such as political connection of the board member, individual network of the board member, ethnicity, etc. to the explanatory variable to have more understanding of the explained and unexplained gender pay gap. Further, as the law in California was redacted in 2021, the timespan available to study the effect of the law is limited from 2018 to 2021.

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