GENDER DIVERSITY OF BOARDROOMS AND 
FIRM FINANCIAL PERFORMANCE

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Abstract

The impact of boardroom diversity on firm financial performance has attracted growing research interest in recent years. However, due to the lack of readily available datasets for other parts of the world, most of the evidence is based on the US data. The purpose of this study is to examine the relationship between gender diversity in the boardrooms and firm financial performance in a region, where it has never been studied before. Using a sample of 60 firms listed in Abu Dhabi and Dubai Stock Exchanges, first the impact of gender diverse boards on the accounting value of the firms is analyzed. Afterwards, stock price reactions to the announcement of the gender quotas on corporate boards in the UAE are examined. The results do not show a significant impact of female directors on the firm’s both accounting and market value. However, these results should be interpreted carefully since the presence of women in leading positions might affect different aspects of the firm practices.

Keywords: Corporate Governance, Board of Directors, Gender Diversity, UAE

1. INTRODUCTION

Boardroom diversity is a hotly debated issue in the corporate finance area. The literature has proved that diversity enhances the boardroom decision making and subsequently leads to better financial performance. Gender diversity in the boardrooms, however, is more of a controversial topic since the results of empirical evidence is mixed. While some studies have confirmed the positive relationship between female existence on boards and financial performance, some found no significant relationship. One of the reasons of the non-established evidence of the relationship between gender diversity and firm financial performance is the low number of female participation in the boardroom, while another is the lack of readily available data which would enable researchers to study the relationship. The highest percentage of female representation is seen in Scandinavian countries, Norway being the highest (22% in 2008), while the number gets exceptionally low in Arab countries (1.8% in the UAE as end of 2008). The aim of this study is to investigate the effects of female board participation on firm financial performance in the UAE. The study will contribute to the literature by providing evidence from a region where this issue had never been studied before.

Although gender diversity is generally viewed as a norm for equity and fairness, representation of women on corporate boards is very low throughout the world. As of 2009, only 15.2% of board members of the US Fortune 500 companies were females (Catalyst, 2009). Other Western countries also show a similar trend, except for Scandinavian countries where legal and political pressure enforces greater women representation on boards. However, even in Norway where the women representation is the highest, female participation in the boardroom reaches only to 36.3% by 2012. The numbers get worse when we look at the Middle East. By 2008, percentage of female board of members was only 1.5% for the whole GCC and 1.8% for the UAE. Although the numbers are still very small, the future looks more promising as the percentages increase. While in 2008 there were only 6 females sitting on the boards of the UAE listed companies, as of 2012 the number has more than doubled and reached to 18. It is very likely that this increasing trend will continue since more educated and highly qualified females join the UAE workforce every year, who are as well supported by the legislation passed in 2012, requiring female board members in every public company.

The corporate world, legislators and regulators had reached a consensus on the benefits of diversity in the boardroom. Having board members with different ethnic backgrounds, age, experience, education and gender is believed to add value to the firm, bring diverse thoughts to the boardroom, enhance the decision making and subsequently increase the firm financial performance. However, this issue still needs further empirical investigation—particularly for the Middle East region, which is traditionally shaped by conservative and patriarchal cultures. In these societies, authority from women is often perceived as inferior and actions are taken against those who are involved in female associated activities. Among the widely accepted beliefs, the most harmful is the dependency of women on men which is not only a cultural barrier to the corporate world but also a barrier in the growth of female participation in the corporate environment.

As women gain more education, have better job opportunities and hold high positions in the corporate world, they are more likely to contribute to the development of the organization. This is no different in the Middle East, where women are often expected to carry out tasks that are valued by the society. It is important to note that women are often expected to provide support to their families which leads them to accept roles that are less demanding and less challenging. However, when women are part of the decision making process, they are more likely to bring different perspectives and experiences that can lead to better financial performance.

The corporate world, legislators and regulators should create an environment where diversity is encouraged and appreciated. This can be achieved by providing training programs for board members to understand the benefits of diversity and to develop an open mind towards female managers. It is important to note that diversity is not limited to gender but includes different ethnic backgrounds, age, experience, education and gender. By embracing diversity, companies can enhance their decision making and subsequently improve their financial performance.
The remainder of the study is organized as follows. Section 2 discusses the previous evidence on the relationship between gender diversity in the boards and the firm performance. Section 3 discusses data and variables, Section 4 explains methodology and hypothesis. The results are presented in Section 5 and Section 6 concludes.

2. LITERATURE REVIEW

Literature has shown that better corporate governance practices lead to better firm performance (Iren and Bathala, 2009). Diversity in the boardrooms is one of the mostly researched attributes of good corporate governance. Diversity is perceived to increase the firm value. Proponents of diverse boardrooms argue that boardroom diversity enhances boardroom decision making by lessening the tendency to engage in groupthink (O’Connor, 2003&2006) and increasing the diversity of opinions represented in the boardroom (Ramirez, 2003 & Polden, 2005). Besides, the literature has shown that women are financially more risk averse than men (Jianakopoulos and Bernasek, 1998; Ermer, Cosmides and Tooby, 2008) which would lead them to take financially more sound decisions. More so, boardroom diversity can cut the risk of corporate fraud and significantly reduce the risk of unethical behaviour (Liebman and Posner, 2001).

Despite boardroom diversity is socially desirable and believed to enhance the corporate performance, empirical evidence on positive effects of gender diversity is inconclusive. Although many studies showed a positive relationship between female participation on boards and firm performance, some failed to present a significant relationship. Utilizing US data, Erhardt, Werbel and Shroder (2003) documented a significant positive relationship between gender diversity on boards and firm performance when return on assets (ROA) and market ratios, while Nguyen and Faff (2003) calculated the sum of total assets and market value of equity less common equity divided by total assets, Gender diversity is measured by a dummy variable which takes a value of 1 in case of the existence of a female board director, and 0 otherwise. As for robustness, percentage of female board members is used as another gender diversity measure.

Data outside the US, also presented inconclusive evidence. While a positive effect on firm value is shown by Campbell and Miguez - Vera (2008) in Spain and by Luckerath-Rovers (2013) in Denmark; Smith, Smith and Verner (2006) found no significant relationship between female representation on boards and Danish firms’ performance. In sum, the evidence on the effects of gender diverse boards on financial performance is mixed. Since the data for the Middle Eastern countries is not readily available, researchers were inclined to focus on economies where data collection is not an issue. Therefore, there is no evidence on the relationship between gender diversity and firm performance in that region. This study aims to contribute to the literature by providing evidence from a region and country, UAE, where no such a study had been conducted before.

3. DATA AND VARIABLES

The sample includes 60 firms listed on the Abu Dhabi and Dubai Stock Exchanges for the period from 2005 to 2012. Since the directors data for companies listed on the UAE exchanges is not readily available, the data about the gender of the directors is hand collected from the companies’ annual reports. To identify the gender of the board members, first, photos in the annual reports are utilized. If the photos are not published in the annual report, identifying pronouns like he/she, him/her, his/her are used. If these are not available, first name of the person is used to identify the gender. If the name is a unisex name, an internet search with the full name of the director is used. Companies whose annual reports are not available, missing or doesn’t include the relevant information are excluded from the final sample. Data needed to compute Tobin’s Q, ROA and the control variables are taken from the COMPUSTAT database.

Consistent with the past literature (Campbell and Miguez-Vera (2008); Adams and Ferreira (2009); Carter et. al. (2010), Ahern and Ditmar (2012)), Tobin’s Q is used a proxy for the firm value. Tobin's Q is calculated as the sum of total assets and market value of equity less common equity divided by total assets. Gender diversity is measured by a dummy variable which takes a value of 1 in case of the existence of a female board director, and 0 otherwise. As for robustness, percentage of female board members is used as another gender diversity measure.

Table 1 presents descriptive statistics for the sample firms. The average size of the firms in the sample is AED 358 billion. The average board is made up of 8 directors. Firms in the sample are around 20 years old and their CEOs have been serving their roles for an average of 5 years. The percentage of female directors in the boardroom is quite low. However, when the number of female directors is examined through years, an increasing trend in the female existence in the UAE boardrooms is noticed.

4. METHODOLOGY AND HYPOTHESIS

To understand the impact of female existence on the firm financial performance, first the means of

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The fundamental hypothesis tested is as follows:

\textit{H}: “All else being equal, gender diversity on corporate boards has no impact on firm financial performance”

If the fundamental hypothesis is rejected, it will be inferred that the gender diversity affects firm value. Significant negative or insignificant estimates for the gender diversity variable must be interpreted carefully, as it wont mean that female directors are hindering the financial performance of firms. Instead, these results might imply that the female board members are used simply as window-dressing (Helland and Sykuta, 2004).

When analyzing the female directors’ effect on governance, endogeneity is always a concern. While it might be true that firms which have females on their boards have better financial performance, it might also be true that firms which perform better and have better governance practices choose to include women in their boardrooms. To control for the possibility of the endogeneity, which could bias the coefficients obtained, the following system of equations is estimated using 2SLS:

\begin{align}
\text{Firm value} &= \alpha_0 + \alpha \times \text{Gender Diversity} + \sum a x + \epsilon \quad (1) \\
\text{Gender Diversity} &= \beta_0 + \beta \times \text{Firm Value} + \sum \beta x + \epsilon \quad (2)
\end{align}

Where \(x\) and \(z\) are vector of several control variables. Following the previous literature (Carter et. al, 2003; Campbell and Miguensvera, 2008), vector \(x\) consists of board size (measured by the natural logarithm of the number of directors), CEO/Chair duality dummy, CEO tenure, leverage, firm size (measured by the natural logarithm of total assets), return on assets (ROA) and industry dummies. Vector \(z\) includes board size, firm size, CEO/Chair duality dummy, CEO tenure, firm age and industry dummies.

After analyzing the impact of gender diversity on accounting measures of the performance, it is interesting to observe same impact on the market measure of the performance. Therefore, at the last stage of the study, stock price effect of the announcement of gender quotas on boards is analyzed by event study approach.

In recent years, several countries introduced gender quotas on the boardrooms; including Norway, Italy, France, Belgium, Spain, Iceland and Malaysia. Quotas have been seriously discussed in Sweden, Germany, United Kingdom and Canada. By the end of 2012, UAE cabinet has made it compulsory for all public and private sector organizations to include women on their board of directors. The announcement is made to public by Vice President and Prime Minister of the UAE Sheikh Mohammed bin Rashid Al Maktoum on December 9th, 2012. He stated that: “Women proved themselves in many workplaces & today we want them to have a strong presence in decision-making positions in our institutions. We have made a decision to make the representation of women, in all the boards of directors of companies and government entities compulsory.”

An event study is conducted to understand the stock price reaction to the initial announcement of the quota. The standard market model is used to estimate the abnormal return (AR) for stock \(i\) on day \(t\) as follows:

\[ A R_{it} = R_{it} - \hat{\alpha}_i - \hat{\beta}_i R_{mt} \quad (3) \]

Where \(R_i\) is observed return on stock \(i\) on event day \(t\); \(R_{mt}\) is return on Abu Dhabi/Dubai Stock Exchange index on event day \(t\); \(\hat{\alpha}_i\) and \(\hat{\beta}_i\) are estimated regression parameters for stock \(i\).

Market model parameters are calculated over a -201 to -2 day estimation period, where day 0 is the event date. Daily abnormal returns are then combined to form cumulative abnormal returns (CARs) over several event windows.

5. RESULTS

5.1. Comparisons of firms with female directors and no female directors

In Table 2, means of firms with female directors are compared with means of firms with no female directors on their boards, utilizing standard t-tests of differences. When the different firm characteristics are analyzed for firms with at least one female director serving in the boardroom with the firms without female directors, there is not a big and significant difference in terms of board size (on average 8 directors) or Tobin’s Q (on average 0.94-1.05).
This table presents t tests to compare the means for several variables between firms with female directors on boards and firms with no female directors on boards. The sample includes 60 firms listed on Abu Dhabi and Dubai Securities Exchanges for the period from 2005 to 2012. ***, **, * indicates 1%, 5%, 10% significance levels respectively.

| Variable                        | Tobin's Q | Female presence on board | Tobin's Q | % of females on board |
|---------------------------------|-----------|--------------------------|-----------|-----------------------|
| Firm size                       | 0.0338*   | 0.0132                   | 0.0293*   | -0.0007               |
|                                 | (0.0177)  | (0.0201)                 | (0.0168)  | (0.0014)              |
| Board size                      | 0.0866   | 0.0514                   | 0.1154    | 0.0399**              |
|                                 | (0.1166)  | (0.1708)                 | (0.1165)  | (0.0126)              |
| CEO/Chair duality               | -0.1693*  | -0.2392*                 | -0.1783*  | -0.0185*              |
|                                 | (0.1045)  | (0.1417)                 | (0.1014)  | (0.0105)              |
| CEO tenure                      | 0.0004   | 0.0007                   | 0.0007    | -0.0004               |
|                                 | (0.0033)  | (0.0032)                 | (0.0032)  | (0.0003)              |
| Leverage                        | -0.0003  | -0.0002                  | -0.0002   | -0.0004               |
|                                 | (0.00002) | (0.00002)                | (0.00002) | (0.00002)             |
| ROA                             | 0.052    | 0.0045*                  | 0.0045*   | 0.0002                |
|                                 | (0.0029)  | (0.0027)                 | (0.0027)  | (0.0002)              |
| Firm age                        | 0.0064**  | 0.0064**                 | 0.0064**  | 0.0064**              |
|                                 | (0.0027)  | (0.0027)                 | (0.0027)  | (0.0027)              |
| Tobin's Q                       | -0.1303  | -0.0145                  | -0.0145   | -0.0145               |
|                                 | (0.1355)  | (0.0101)                 | (0.0101)  | (0.0101)              |
| Female presence on board        | -0.0404  | -1.0442                  | -1.0442   | -1.0442               |
|                                 | (0.0722)  | (0.9333)                 | (0.9333)  | (0.9333)              |
| % of females on board           | 0.4746   | 0.4562                   | 0.4562    | -0.0372               |
|                                 | (0.3444)  | (0.3342)                 | (0.3342)  | (0.0361)              |
| Industry dummies                | Yes       | Yes                      | Yes       | Yes                   |
| N                               | 107       | 106                      | 111       | 109                   |
| Adjusted R                      | 0.0476   | 0.0928                   | 0.0487    | 0.0734                |

Bigger firms (average total assets of AED 59 billion) choose to have at least one female director when compared to smaller firms (average total assets of AED 49 billion) but the difference is not significant. On average, firms with female directors have lower ROAs (-0.33%) when compared to firms without female directors (2.48%). However, this difference is not statistically significant. On average, more established firms (on average 27 years old) employ more females in their boardrooms when compared to younger firms (on average 20 years old) and this difference is statistically significant. Also, firms financed with more solid equity base (AED 10 billion) choose to have female directors while firms with less equity (AED 4.5 billion) do not have a female director. And this difference is statistically significant. These comparisons suggest that firm characteristics might influence the firms’ decisions to include female directors in their boardrooms. However, difference in means test only gives a comparison. Therefore, further tests are conducted to analyze the impact of gender diversity on firm financial performance.

5.2. Regression results: gender diversity and firm value

Table 3 reports the results of the 2SLS panel data regression. In models (1) and (3), Tobin’s Q is the dependent variable, while in models (2) and (4) female presence on boards is used as the dependent variable.

In the Tobin’s Q models firm size, ROA and CEO/Chair duality dummy are found to have significant effect on the firm value. The coefficient estimates for CEO/Chair duality is negative which suggest that the firm value declines when the CEOs...
also serve as the Chair of the Board. As expected, coefficient estimate for ROA is positive, suggesting that more profitable firms have higher value. Also, the significant positive coefficient of firm size variable shows that bigger firms are able to attain higher values. These results are consistent with the literature (Carter et al., 2003). When the hypothesis variables are examined, no significant impact of women presence on board on the firm value is observed.

In the female presence on boards models, CEO/Chair duality has a negative significant effect which implies that when the CEO also serves as the Chairman of the board, it is less likely that there will be female directors on the board. When the female presence is measured by the dummy variable, firm size and ROA has a positive and significant effect, which shows that bigger and more profitable firms will be more likely to have female members on their boards. When female presence is measured by the percentage of female directors on the board, board size has a positive effect, which suggests that in larger boards there is a greater probability of having females represented on the board.

5.3. Event study results: gender quota on boards and stock price

Event study results are presented at Table 4. The sample includes 47 companies with available daily stock price data over the estimation period and at the announcement date. Sheikh Mohamed Mohammed bin Rashid Al Maktoum’s announcement on December 9th, 2012 is taken as the event date. Both the average daily abnormal returns and the cumulative abnormal returns over several different event windows were insignificant. The results suggest that the market has not reacted to this initial announcement. When stock price reactions of companies with female directors on their boards are analyzed separately, all of them showed a positive abnormal return, with only one of them being significant.

Table 4. Event study- stock price reactions to gender quota on boards announcement

| Event window | CAR  | t-statistic |
|--------------|------|-------------|
| [0,1]        | -0.238% | -0.73       |
| [0.1,1]      | -0.004% | -0.02       |
| (0,0.2)      | 0.244%  | 0.56        |
| (0.2,1)      | 0.192%  | 0.41        |

These results might mean that the market perceives this legislation as window dressing and do not expect a change in firm value with the addition of female directors, or alternatively, it might also mean that the market is indifferent to having male or female directors and do not perceive the gender diversity on corporate boards as a value-enhancing practice. Even though the quotas were announced by the end of 2012, they are not fully implemented yet. Future studies should look into the market reaction to quotas when they are fully implemented.

6. CONCLUSION

Although the whole world has been changing rapidly, empowerment of women is still a debated issue. When compared to a few decades ago, today women are more educated, highly qualified and ready to assume responsibilities for high-level, highly-impactful positions in the corporate world. However, glass ceiling, traditional views on women and social structure still prevents women to reach higher positions. Even though it applies to the whole world, in the Middle Eastern region especially, women workforce is underutilized. Although the female representation in the corporate governance is socially desirable, the empirical evidence which proves the positive impact of female directors’ existence on the firm value is still inconclusive. Especially, there are no studies covering the Middle Eastern region, partly due to the low number of female participation on the corporate boards and partly due to the lack of readily available data.

To fill this gap, this study focuses on the UAE markets and creates the first dataset regarding the boardroom diversity in the country. First, the impact of gender diverse boards on the accounting value of the firm is analyzed, followed by an event study to understand the change in the market value of the firm to the announcement of gender quotas on boards. The analysis of the results has failed to show a significant impact of female directors on the firm’s both accounting and market value. However, these results are mainly due to the extremely low number of female directors serving on the UAE firms’ boards.

Future studies should investigate and include more countries from the Middle East and compare the different trends in different countries. Besides, even after including more data to get better results, if the positive impact of female directors on the firm value cannot be proved, that doesn't necessarily imply a policy recommendation to lift or lower the gender quotas on the corporate boards. Female existence does not only bring diversity to the boardrooms but it might also affect many different aspects of the firm practices. For example, it is important to research if having females in the key positions in the firms affect hiring policies of the firms, or creating perceptions of female corporate leaders change the career paths of young women. Also, an interesting further avenue for research would be to compare the before and after the gender quota implementation in the UAE.

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