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Do Women on Boards affect Firm's Financial Performance? Evidence from Indian IPO Firms

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Amit Kumar Singh¹, Shubham Singhania² and Varda Sardana³

Abstract

The objective of this paper is to study whether the presence of women on boards affects the financial performance of firms. This study builds upon other studies that have earlier tried to determine the impact of number of women directors in Indian corporates on their financial performances, in terms of market performance index, i.e. Tobin's Q. The new Companies Act, 2013 has mandated the appointment of at least one woman director in certain classes of listed companies in India as described in Section 149(1)(b), which could possibly bring about a change in the governance and thus the financial performance of firms. The focus of this study is on finding and analysing the impact of compliance with this provision on the financial performance of IPO firms. In order to test our hypotheses, we selected 41 Indian Companies that have made an Initial Public Offer (IPO) in the recent past and have been listed on Bombay Stock Exchange during the period 2012-2016. The performance of each of these firms has been measured in terms of Tobin's Q for 3 successive years after their listing (IPO) as well as by using two gender diversity index values- Blau Index and Shannon index. The study concluded that the proportion of women on board is insignificant and that it could not impact the financial performance of the firms. Neither has it caused any adverse impact on the performance of these firms.

JEL classification: G38, M14, J15, J16

Keywords: IPO Firms, Women Directors, Tobin's Q, Financial Performance, Gender Diversity.

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1. INTRODUCTION

The subject of women on boards is a new and developing area of research. Many researchers have been carrying out studies to find out the impact of gender diversity on the performance of companies. This area of research has gained widespread interest after the institution of legal norms regarding the appointment of women directors on board in firms across the globe, beginning with the European corporate sector. It was in 2013, when the Companies Act came into force after revamping the old Companies Act of 1956, that the representation of women on board was paid heed to in India. It mandated the appointment of at least one woman director on boards of all the Indian listed companies and those public companies in India having a paid up capital of hundred crores or more and a turnover of three hundred crores or more in any year.

The reason for introducing this legal requirement was the low average numbers of women on the boards of Indian corporations, which is quite contrary to the principles of equality that the Indian constitution emphasizes. With the reservation of board seats for women in the European counterparts, the Ministry of Corporate Affairs, realizing the need of the hour and the importance of Indian women with respect to their leadership and managerial expertise, reserved a mandatory position for women on boards in the corporate sector.

The Gender Diversity Index reveals that in the year 2017, there has been a substantial rise in the number of board seats occupied by women in Fortune 1000 companies. It has been observed that out of 801 active Fortune 1000 companies, 55% of the companies have achieved the status of 'W' Companies, with more than 20% of their board seats held by women. The 'Z' companies, that is, those with no women directors, fell to an all time low of 7% in 2017. However, a high incidence of tokenism is observed in the Indian scenario with just one seat reserved for women on boards as against 40% reservation in Norway and Germany. If we consider the representation of women in the new firms coming up with their IPO, women hold just 9.2% of the board seats in the largest 25 IPO companies in 2017, which has increased from 8.2% of board seats in 2016.

This paper looks into the impact that women on boards could have, on the financial performance of the firms. In this respect, we have chosen 41 BSE listed Indian companies that have made Initial Public Offers (IPOs) during the period 2012-2016. We calculated the proportion of female directors in these firms to analyse the impact of gender diversity on board on the firm performance, calculated in terms of Tobin's Q, which is a proxy indicator for market performance for the 3 successive years immediately after their IPOs.

Many researchers have investigated the impact that the presence of women creates on corporate returns. Previous research has actually produced mixed results, given that the link between gender diversity and financial performance in a firm is both theoretically and empirically complex. However, most existing studies have used data from western countries rather than the developing nations. The management and leadership styles develop in synchronisation with the culture, which has a long lasting influence on the firm's financial health. This paper uses evidence from India, a developing country with a male dominated culture, like most of the Asian countries.

Our investigations focus on finding out how the presence of women directors on board would change the financial health after the institutionalisation of the women reservation norms by Companies Act 2013 under Section 149(1)(b) and Securities Exchange Board of India in Revised Clause 49 of the listing agreements. We have used updated data of the firms that

have stepped into the capital market by making new issue of shares, after the provisions of Companies Act 2013 came into effect.

The paper has been divided into five sections. Section 1 and Section 2 pertains to the introduction and literature review respectively. Section 3 deals with research gap, objectives and hypotheses. Research design is covered under Section 4 wherein the methods adopted, variables chosen and sources of data have been explained. Section 5 highlights the results and analysis. We conclude our paper with Section 6, highlighting the areas and Scope for future research and limitations of the study.

2. LITERATURE REVIEW

The corporate governance mechanism is something that has been a focus of attention in many countries in recent times. Corporate governance norms play a large role in building up the financial performance of any business concern. Lately, board gender diversity has been one of the most talked about aspect of corporate governance. It has been observed that the gender composition of the board may influence the performance of the company. It is time that productive resolutions are taken at the government and company levels for board level gender equilibrium.

2.1 Performance of IPOs

Singh and Maurya (2018) in their Indian study have shown that IPOs on National Stock Exchange (NSE) posted a very small gain of 4.63%, in short run, calculated on one month basis. About 64.21% of IPOs introduced on NSE were found to be under-priced and the rest were concluded to be overpriced. Also, except 1 firm, the issue price and the listing price was also found to be the same. Jain and Kini (1994), while investigating post IPO performance, noticed that they incurred a significant level of decline in post IPO performance, causing equity retention. It can also be said that the markets usually overreact to the news of an IPO and then slowly stabilises to normal. Coakley et al. (2007) also highlighted huge underperformance of the initial public offerings in the bubble years 1998-2000, while later the IPO performances have been more or less normal. Murthy and Singh (2016) show that for IPOs listed from the year 2000 to 2003, the long run variables have no relationship with short-run variables. Moreover, in the context of Indian new issues market, Singh and Maurya (2018) in their study concluded that it is the presence of independent directors, rather than non-executive directors, that provides for relevant information with respect to the post IPO returns.

Krishnan et al. (2011) noted a positive relationship between the image and goodwill of VC-backed IPOs and their long run performance. As per them, reputable venture capitalists are more actively involved in the governance of firms, post IPO, and thus are likely to influence long run performance positively in post IPO period. It has been found that market overreacts to the initial public offers, as is proved by the findings that majority of the IPOs have significant returns on the day of listing, but beyond that they do not give much return (Murthy & Singh, 2014).

2.2 Women and Board Diversity

Diversity refers to a variety of different characteristics put together in a common place. When it comes to board of directors, diversity can be in terms of ethnicity, gender, age, or the like. In a male dominated country like India, not much has been said about women representation

on the board of directors or top management positions in a company, until the onset of Companies Act 2013. Das and Dey (2016) have mentioned in their study that the number of women present on the board is indicative of firm's ethical behaviour and a balance on the board. Indian companies should learn how to build competitive advantage by putting up women on their board, thereby ensuring good reputation amongst the stakeholders (Kaur & Singh, 2017) which will ultimately lead to better financial health of the firms. Studies prove that women empowerment is likely to be advantageous for the corporations owing to the synergies brought in by gender diversity (Paul, 2017). Sanan (2016) reveals in her study that the number of companies with no independent women directors has reduced over time, which is good news as far as efficient corporate governance is concerned. But whether or not it is likely to improve corporate performance is a question that still needs to be answered.

2.3 Gender Diversity on Board and Positive Firm Performance

Taking into consideration the all-round benefits of gender diversity on boards, many researchers have come up with the idea that women on board have a positive impact on financial performance. Luckersmith and Rovers (2013) believe that the presence of women on board will boost firm performance. Companies with women directors tend to be more ethical when it comes to dealing with their stakeholders, thus ensuring high firm value and better performance. Carter et al. (2003) also found a positive and direct relationship between firm value and fraction of women on board. In the Indian scenario, women have always faced challenges with respect to their position and appointment in the business organisations, primarily because of the glass ceiling that confronts them. Realising the importance, managerial and leadership abilities of women, there has been institutionalisation of norms across the globe with regards to appointment of women on board. These norms have forced the appointment of women on boards, and firms have given better results after such appointments. Adams and Ferreira (2008) have stated that gender diversity in top management is likely to bring a forward push in the financial health of the firms with weaker shareholder rights.

In a global study undertaken by Terjesen et al. (2016), it was found that firms having a higher proportion of female directors on board are going to have better Tobin's Q and return on assets as compared to those which have none. Another investigation that was conducted with respect to Indian context, in light of the mandated representation of women on board, also showed positive results on firm performance (Sanan, 2016). Studies have been conducted across various sectors and industries in India to find out the implications of one woman on board norm. Das and Dey (2016), while investigating large Indian corporations for the role of corporate governance in firm performance, have come across positive impact of board diversity on financial performance. However, the performance of the corporates may respond differently to board diversity in different sectors and different methodology used for analysis.

2.4 The Negative Implications of Gender Diversity on Board

While going through the available literature, we have come across some instances where gender diversity on board has worsened off the financials than before. In their study of FTSE 100 companies, Ryan and Haslam (2005) found that during periods of declining stock markets, companies who appointed women directors experienced worse performance than those with male directors. This trend has been experienced globally. McGuinness (2017), as per investigations conducted in Hong Kong, also envisages the idea of gender bias imposing a cost on stakeholders and thus affecting performance negatively. A similar study conducted in Norway by Ahern and Dittmar (2012), suggests that in companies with quota reserved for women on board, there is a decline in Tobin's Q over a period of time. Where on the one

hand, many authors have supported the idea of appointment of women on board, claiming that diversity would help in better decision making and problem solving, it has also been observed that diversity brings with it more chances of conflicts and makes decision making time consuming (Gallego et al., 2010). Wellalage and Locke (2013), in a study conducted in Sri Lankan context, have found that board heterogeneity has a negative impact due to increased chances of conflicts. In a country like India, where there are many family businesses running and operating since years, the mandate of appointing women directors has been complied with by putting the female relatives or family members on the boards.

A lot has been said about the positive and negative implications of the presence of women on board on corporate financial performance. A few authors have envisaged a direct relation between the two variables stating that gender diversity leads to more opinions and better decision making owing to different attributes of men and women. Better decision making leads to problem solving and thus, better performance. There are studies which show that the relationship between the two variables is negative, owing to more chances of conflicts and delays in working.

2.5 Women on Board and No Impact on performance

Noland et al. (2016), in a global study of 21,980 firms, found no impact of the gender quota on board on a firm's financial performance. Many studies have also been carried out in developing countries with the same results. A study conducted by Yasser (2012) in Pakistan showed no impact of gender diversity of board on the financials of the companies listed on the Karachi Stock Exchange. Gallego et al. (2010), while carrying out research in the context of Spain, have also concluded that high level of gender diversity may or may not influence performance.

However, the existing literature has raised questions on the new provision of Companies Act by calling it a mere tokenism, with just one independent woman director present on boards not making a significant difference. The number of companies with 2 or more women directors is substantially less (Sanan, 2016). In order to achieve better performance, Joshi (2017) concluded that there is a need for Indian companies to exploit the opportunity to build a strong talent pool of diverse directors.

3. RESEARCH GAP

The existing literature brings to light various instances where the presence of women brought positive results, negative results and there were instances with no impact on performance at all. The investigations conducted do not give a uniform result to throw light on the effect of gender diversity of board on the firm performance. Moreover, it is imperative to seek answer to this pertinent question whether the addition of a mandatory provision has led to any improvement or change in the performance or not. Firms coming out with an IPO in India are required to disclose their managerial board in their prospectus issued to the shareholders. Hence, it would be both essential as well as interesting to see whether having a diverse board will send a positive signal to investors so that the firms can take better informed decisions owing to access to diverse viewpoints. The impact of such perceptions would certainly be easy to measure in terms of the short term performance. In our study, we have examined 41 publicly listed IPO firms for their compliance with provision for appointment of women on board and how that impacts their performance. We seek to find answer to the question whether presence of women on board is just in letter or in spirit too, which will help firms take future decisions effectively.

4. OBJECTIVES

- To analyse the impact of the presence of women directors on boards on the short term performance of firms.
- To analyse the impact of gender diversity of boards on the short term financial performance of firms.
- To analyse the impact of return on assets and leverage on the financial health of the firms.

5. HYPOTHESES

H₀₁: The percentage of women on board has no effect on the short term firm performance.

H_{a1}: The percentage of women on board affects the short term firm performance.

H₀₂: The size of a firm has no effect on the short term firm performance.

H_{a2}: The size of a firm affects the short term firm performance.

H₀₃: Leverage in a firm has no effect on the short term firm performance.

H_{a3}: Leverage in a firm affects the short term firm performance.

H₀₄: Return on assets of a firm has no effect on the short term firm performance.

H_{a4}: Return on assets of a firm affects the short term firm performance.

6. RESEARCH DESIGN

6.1 Sample size and Data sources

The data includes a secondary sample of 41 IPO firms listed on Bombay Stock Exchange, selected on the basis of purposive sampling technique, to investigate the impact of having women directors on the board of the firms and how they affect the performance of these firms. All the selected firms have made an initial public offer (IPO) during the period 2012-2016. Their performance for 3 financial years has been taken into consideration after the IPO listing.

The above sample has been chosen since the bill relating to the mandatory provision for the appointment of one woman on board was already in place and firms had started complying with the same to protect themselves from any unnecessary penal action. Hence, the purpose of selecting such new IPO companies is that when a firm goes public, there are various factors which are taken into consideration while making initial investments and one such element is the ability of the board to take well informed decisions.

We believe that IPO firms are the best form of sample to be chosen, as they would adequately reflect the impact of such diversity on board and its implications on financial performance. Hence, we tried to analyse how the appointment of at least one woman director as per the Companies Act 2013 affects the financial performance of firms after their listings (Welbourne, 1999). Their presence is likely to give a lot of signals to the prospective investors with regards to the functioning as well as other aspects of the firms.

The data about the IPO firms i.e. issue price, opening and closing date as well as other information related to the IPOs has been retrieved from the Chittorgarh website. The corporate governance variables have been taken from the corporate governance reports of these firms and the financial variables have been retrieved from the prowess database and cross checked with the annual reports of these companies.

6.2 Variables

Dependent Variable

Financial Performance is the major element that incentivises the investors to make investments into a firm in the expectations of gaining good returns, and it is on this basis that the performance of the board of directors is also evaluated. We measured financial performance by using a market based measure rather than the accounting based measure, since the accounting based measures are based on the past results and might not reflect the changes in the governance norms immediately (Haldar et al., 2015).

Tobin's Q

Tobin's Q is considered as one of the best market based measures due to multiple reasons: Firstly, it takes into account the risk factor, unlike other accounting measures, and is not subject to distortions. Secondly, it reflects the market's expectations of future earnings and is, thus, a good proxy for a firm's competitive advantage (Montgomery & Wernerfelt, 1988). Hence, Tobin's Q was used as a proxy for measuring the performance, based on the work of Ahern and Dittmar (2012), Haldar et al. (2015), and Campbell et al. (2008) for various years. Tobin's Q is calculated using the Chung and Pruitt (1994) formula, which is, market valuation of shares plus debt divided by the total assets. A unity value for the Tobin's Q ratio acts as a significant benchmark for the measurement of firm performance. All the firms having a value greater than 1 are construed to give better returns to the investors as compared to the firms having value less than 1. It is also a sine quo nun for efficient utilization of resources.

Independent Variables

Table I provides a brief description of the independent variables used in the study.

Table I: Independent variables

S.No	Independent Variable	Definition	Symbols
1	P-Women	Percentage of women directors on board with respect to the total directors.	P-Women
2	Blau Index	A measure of gender diversity.	SHANNON
3	Shannon Index	A measure of gender diversity.	BLAU
4	Return on Asset	Percentage of profits earned against the total assets employed by a firm.	ROA
5	Leverage	Computed as the ratio of total long term debt to the total assets.	LEVER
6	Firm Size	Measured in terms of the natural log of the total assets.	F-SIZE

Percentage of women on board (P-woman)

P-woman represents percentage of women on board with respect to the total number of directors. This variable is a proxy for measuring gender diversity at the board level. Many studies in the past have confirmed the benefits of having a diverse board, in terms of a positive relationship between women on board and organizational innovation, better decision making, different perspectives etc. (Torchia et al., 2018). Diversity on board provides various opportunities in terms of strategic alliances that firms can build, based on its relationships with other groups (Halder et al., 2015). Hence, P-woman has been used based on several

studies by Campbell and Mínguez-Vera (2008), Giraldez and Berenguer (2018), Welbourne(1999), and Halder et al. (2018).

Blau Index

The Blau Index, that has been used as a proxy for women directors on boards, is a Gibbs-Martin index of sociology, psychology and management studies which is calculated using the formula $1 - \sum_{i=1}^n p_i^2$ where p denotes the proportion of board directors in each male and female category and n symbolises the total number of directors on board. The variable has been used to enhance the robustness of the study with respect to women on board (Campbell & Mínguez-Vera, 2008).

Shannon Index

The Shannon Index, a reputed diversity index found in the literature, aims to state in quantitative terms, the uncertainty in predicting the species identity of any person chosen randomly from a given set of data. It is calculated using the formula: $-\sum_{i=1}^n p_i \ln(p_i)$. This variable has also been chosen to enhance the robustness of the study in terms of gender diversity on board (Campbell & Mínguez-Vera, 2008). Here, p denotes the proportion of board directors in each male and female category and n symbolises the total number of directors on board, similar to the Blau index.

In our study, women directors on boards of companies has been selected as an independent variable, and amongst the independent variables, we have applied Blau Index and Shannon Index, which shall take into account the number of categories in terms of gender as well as the evenness in terms of the distribution of board members amongst them. These attributes can also be said to be the measure of ‘variety’ and ‘balance’ (Stirling, 1998).

Control Variables

Return on Assets (ROA)

Return on assets has been used as one of the control variables in our study, and has been measured as a percentage of profits earned against the total assets employed in a firm. Return on assets is one of the operational-based measures of financial performance and, thus, is likely to affect the market based performance of a firm (Alghifari et al., 2013; Campbell & Mínguez-Vera, 2008).

Leverage (LEVER)

The leverage of a firm is computed as the ratio of total long term debt to the total assets, indicating what percentage of total assets of a firm is financed by debt. Leverage of the firms affects the ability of the managers to take decisions, since the creditors would interfere in the working of the firm based on their own interests. (Chen & Jaggi, 2000; Hutchinson & Gul, 2004).

Firm Size

Firm size has been measured with respect to the natural log of the total assets. It has been observed in the literature that the success of women on board differs based on the size of the firm, and women achieve great success in smaller firms. This was later contradicted by Sealy et al. (2008). It is also imperative to take firm size into consideration because the firm financial performance is likely to be affected by the size of the firm, as large firms have larger abilities to influence performance (Short & Keasy, 1999). Hence, based on several

studies (Haldar et al., 2015; Campbell & Mínguez-Vera, 2008; Yasser et al., 2017), it was included as a control variable.

6.3 Empirical Model Specifications

We have used a balanced panel data in our study that provides various advantages as compared to the time series data or the cross section data. Firstly, panel data offers more flexibility in forecasting the behaviour of the cross sectional units as compared to the time series data analysis (Greene, 2008). Secondly, a panel framework allows for analysis of a larger number of observations as compared to the individual time series for comparison purposes.

Panel data is a methodology that is often used to eliminate any unobservable heterogeneity that might be present in the sample for the study. However, if any unobservable heterogeneity is found to be correlated with the explanatory variables, we undertake a conditional inference (that is, estimation by fixed effects). However, if the effects are not correlated with the independent variables, we instead carry out unconditional inference using the random effects method. We have used the Hausman test (Hausman & Taylor, 1981) to check the presence of any correlation between unobservable heterogeneity and the explanatory variables (Ahern & Dittmar, 2012). We found that the unobservable effect was not correlated with the explanatory variables; hence random effect model was used in running the OLS regression.

Three different ordinary least squares (OLS) regression analyses were run using the dependent variable as Tobin's Q and all the control variables, by changing the independent variables in each model as P-woman, Blau Index and Shannon index. Since we have used three proxy variables, i.e. P-woman, Blau Index and Shannon Index, three OLS regression models were developed and the results were obtained for each of them.

The economic model used is specified below-

$$\text{Model 1: } Q_{it} = \beta_0 + \Sigma\beta_1 P\text{-WOMAN}_{it} + \Sigma\beta_2 LEVER_{it} + \Sigma\beta_3 ROA_{it} + \Sigma\beta_4 F\text{-Size}_{it} + \epsilon_{it}$$

In Model 2, we replace P-woman with Blau Index which is another proxy variable for gender diversity on board.

$$\text{Model 2: } Q_{it} = \beta_0 + \Sigma\beta_1 BLAU_{it} + \Sigma\beta_2 LEVER_{it} + \Sigma\beta_3 ROA_{it} + \Sigma\beta_4 F\text{-Size}_{it} + \epsilon_{it}$$

Additionally, in Model 3, we replace Blau with another proxy variable i.e. Shanon Index.

$$\text{Model 3: } Q_{it} = \beta_0 + \Sigma\beta_1 SHANNON_{it} + \Sigma\beta_2 LEVER_{it} + \Sigma\beta_3 ROA_{it} + \Sigma\beta_4 F\text{-SIZE}_{it} + \epsilon_{it}$$

Where,

Q_{it} = Tobins' Q, our proxy for financial performance of firm i in period t.

$P\text{-WOMAN}_{it}$ = Percentage of women on board of firm i in period t.

$BLAU_{it}$ = Blau Index, which is a proxy for gender diversity, of firm i in period t.

$SHANNON_{it}$ = Shannon Index, which is a proxy for gender diversity, of firm i in period t.

ROA = Return on Assets of firm i in period t.

$F\text{-SIZE}$ = Firm Size of firm i in period t.

$LEVER$ = Leverage of firm i in period t.

ϵ_{it} = random disturbance term

7. RESULTS & ANALYSIS

Table II: Descriptive Statistics for all the variables.

	Mean	Median	Maximum	Minimum	Standard Deviation
BLAU	0.267942	0.244898	0.46875	0.142012	0.081204
P-Women	0.166263	0.142857	0.375	0.076923	0.068923
LEVER	0.340035	0.115122	5.78	-1.3	0.985695
SHANNON	0.434102	0.410116	0.661563	0.271189	0.097206
F-SIZE	6440.087	929.42	194679.5	18.84	27437.67
ROA	2.680766	5.88	79.1	-578.23	54.08431
TOBINS-Q	3.388572	2.336391	17.37609	-0.14	3.158144

Source: Authors' own calculations

The above table provides descriptive statistics for the independent, dependent and control variables used, in the form of mean, median, standard deviation, maxima, minima etc. by using 123 observations. If we look at the mean of Blau index and Shannon index, it is approximately 0.26 and 0.43 respectively, whereas average Tobin's Q is 3.38 (approximately). This depicts that the diversity is too less to have any impact on financial performance. The average percentage of women on board is 16.62% only, amongst 123 observations. The average assets are Rs.6440.86 crores which suggests good financial health of the firms. The lower leverage ratios are considered to be good as it suggests that less assets are financed by debt. The above table also depicts a very low mean leverage of 0.34. These statistics support the results of our regression tests as shown below.

Table III: Hausman Test to check whether Random effect or Fixed effect Model shall be used.

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	p-value
Cross-section random	5.670113	5	0.3397

Source : Authors' own calculations

We performed the Hausman test, which helps to differentiate between the fixed effects model and random effects model in the panel data, with random effects model being adopted on the non-rejection of the null hypothesis. From the test, we find the p-value to be equal to 0.3397 i.e. it is insignificant at 5% (Table III), which means that we do not reject the null hypothesis and therefore, choose the Random Effects Model to run our regression tests.

Table IV: Random Effects Model using the variable P-Woman and other control variables.

Variable	t-Statistic	p-value
C	1.275903	0.2053
P-WOMAN	0.089598	0.9288
F-SIZE	-0.669224	0.5051
LEVER	3.594660*	0.0005*
ROA	6.392905*	0.0000*

Source: Authors' own calculations (*at 5% significance level.)

The first multiple regression is run using P-WOMEN as an independent variable (Table IV) and three control variables, i.e., total assets, leverage and return on assets. On applying the test, we find that the p-value for P-WOMEN variable is 0.9288 which is statistically insignificant and therefore we do not reject the null hypothesis. This means that the proportion of women directors does not have any impact on Tobin's Q ratio. The p-value of total assets (0.5051) is also insignificant which means that the value of total assets of a firm will not impact its financial performance or Tobin's Q ratio. The p-value for leverage is 0.0005 which is significant, thus we reject the null hypothesis and conclude that the leverage ratio would impact Tobin's Q. A rise in leverage will help to increase the earnings per share for the shareholders, which would send a positive signal to the market about the financial status of the firm and thus affect the stock price and Tobin's Q. The variable ROA is also significant, and we conclude that ROA positively affects Tobin's Q. The rise in ROA would bring a rise in Tobin's Q and thus improve firm performance.

Table V: Random Effects Model using the variable Blau Index and other control variables

Variable	t-Statistic	P-Value
C	0.897421	0.3719
BLAU	0.213332	0.8316
LEVER	3.591204*	0.0005*
F-SIZE	-0.684969	0.4952
ROA	6.419894*	0.0000*

Source: Authors' own calculations (*at 5% significance level.)

The second regression model uses Blau index as an independent variable instead of P-WOMEN, rest all variables remaining the same. Table V shows the results. The p-value of Blau index is 0.8316 which indicates that it is insignificant at 5%. Thus, Blau index value, that depicts diversity, does not influence the Tobin's Q ratio. We also interpret the p-value (0.4952) of total assets in the second model to be statistically insignificant and hence do not reject the null hypothesis. Total assets do not impact the financial performance of firms in our sample. The p-value of leverage is 0.0005 which is statistically significant, thus leverage will impact the financial performance. Also, since ROA is significant, it positively impacts the Tobin's Q.

Table VI: Random Effects Model using the variable Shannon Index and other control variables

Variable	t-Statistic	P-Value
C	0.897421	0.3719
BLAU	0.213332	0.8316
LEVER	3.591204*	0.0005*
F-SIZE	-0.684969	0.4952
ROA	6.419894*	0.0000*

Source: Authors' own calculations (*at 5% significance level.)

The third regression model applied using the Shannon index (Table VI) gives us the same results as the previous one. The p-value of Shannon Index (0.8043) is insignificant; hence we cannot reject the null hypothesis. Therefore, Shannon index value depicting diversity does not have any impact on financial performance. The p-value of total assets is 0.4910, which is insignificant, thus we cannot reject null hypothesis and total assets have no effect on the Tobin's Q ratio. However, Leverage and ROA will positively impact the financial performance, as their p- values, 0.0005 and 0. 00 respectively, are statistically significant.

8. CONCLUSION

The study has made contributions to the extant literature and has supported the arguments that diversity on board will not impact the financial performance of the firm. The presence of women on boards does not influence Tobin's Q and hence the performance. The important aspect to be noted here is that most of the firms in our sample have appointed just one female director on their boards, where they could have appointed even more. Hence, we can say that the firms have appointed the women directors only to comply with the mandatory provisions of Companies Act 2013, which shows that this is practised in letter and not in spirit. The existence of women on boards is mere tokenism, as the appointment of a single woman director will not bring much change in a firm's overall decision making.

Examining the causes for no improvement in the performance of the firms, we could relate back to some of the major arguments, like poor women representation. A closed culture at board level, dominated by male directors, might have led to the negation of the diversity advantages. Also, male directors are likely to favour male directors over women due to the in-group favouritism (Hutchinson et al., 2015). Moreover, an essential theory in this regard from the psychological perspective, the similarity attraction theory, advocates the fact that directors feel more comfortable and trustworthy interacting with directors from same demographics (Chatman & O' Reilly, 2004). Another set of arguments in this regard is that there lies an empathetic concern towards facilitating advancement of those belonging to same class (Macdonald & Westphal, 2013). Finally, the argument based on the critical mass theory points out that the critical mass of women positively impacts board strategic tasks, but since in our sample firms, critical mass could not be achieved, there was little scope for improvement in the firm performance (Torchia et al., 2011).

The Firm size measured in terms of the total assets also shows no impact on financial performance. This is contrary to our expectations, as other studies have concluded that size of the firm has a positive effect on performance (Halder et al., 2018; Buallay, 2017; Torchia et al., 2011). This could be because of the short time period of 3 years that is studied. It is possible that in the long run, we are able to see the impact of firm size on firm performance. Also, a low debt to asset ratio and ROA is found to positively improve performance, consistent with Campbell and Mínguez-Vera (2008). This may be because of the operation of

signalling theory which says that favourable financial ratios send a positive signal to the investors. Higher leverage ratio is seen to positively affect the firm performance and is consistent with Yasser et al. (2017). The ROA also sends a positive signal to the general investors about good financial health of the company, as it may result in higher returns to the shareholders.

9. LIMITATIONS & FUTURE SCOPE

There are a few limitations to our study which open opportunities for future research. In our study, data for just three financial years were considered. Data for larger years would make the results much more robust.

The paper has just focussed on the short term performance; long term performance can also be tested after using data of five or more years in future. Also, only IPO firms were considered for the study. Other industries such as banking and financial companies could also be taken up for future studies.

Moreover, we have considered only the gender aspect of board diversity. Other variables such as education levels, experience of the women directors, directors coming from family firms, are also some crucial areas of research that could be considered in the future.

10. MANAGERIAL IMPLICATIONS

The results of the study do not present any improvement in the performance of the firms owing to the presence of women on board. The representation of women on board is very less and hence the benefits that could have been derived from the diversity were not available to the firms in our sample. It appears that the firms have not taken the mandatory clause in true spirits, but have affirmed the provision only as mere tokenism. Until and unless the proportion of women on board enhances, there is little room for improvement in firm performance. Based on the critical mass theory, it has already been highlighted that a minimum of three women directors are required to influence the decision making of the board. Hence, this paper urges firms to enhance the representation of women based on adequate qualification and experience to derive maximum benefits.

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