

BOARD DIVERSITY & FINANCIAL PERFORMANCE – EVIDENCE FROM LISTED INDIAN COMPANIES

Vijaylakshmi^{*5}

Abstract

The essence of board diversity has been imbibed in the legislature with the advent of new Companies Act, 2013 and revised clause 49 of the SEBI listing agreement of stock exchange in India, mandating to include at least one women director and specifying the minimum number of independent directors in the board of companies listed in India. The outcome of increasing research from developed economies have indicated the benefits of having a diversity balanced board in the company, which includes better comprehension of the market, business growth, increased innovation among few. Rather than restricting to gender diversity this study has examined the statutory aspect of the diversity also that is, board independence. The present study undertakes a sample of NIFTY 500 index companies listed in India in the National stock exchange belonging to different sectors – information technology, healthcare, pharmaceutical, and consumer goods. This finds that gender diversity is positively related with Tobin's Q (proxy for company performance) and board independence is not related with Tobin's Q.

Keywords: Corporate governance, Board of directors, Gender diversity, Companies act 2013, Companyperformance

JEL: G34, K22, L25, M14, G30

Introduction

Diversity allows to hire from a huge pond of talent which is essential for business growth. It brings abundant and diverse viewpoints and expertise which will become a boon for the organisation as well as for stakeholders at large. Diversity has become a value in itself, an expression of parity, autonomy and integrity. Shin & Gulati (2011) suggest that diversity is a means to another end which enables increased employee morale and efficiency, increase customer satisfaction, higher shareholder value. Increased diversity enables creation, inventiveness, enabling board to select from a wider spectrum of perspectives and opportunities, this in turn improves the performance level and will uplift organisational image. Governance is about possessing prudent directors' who will monitor and administer the management, thereby bringing heterogeneity in the boardroom decisions. Kreitz (2008) finds that many researchers

⁵ Research Scholar, Department of Commerce, Delhi School of Economics, University of Delhi. Email id – vijaylakshmi801@gmail.com

define diversity as “any significant difference that distinguishes one individual from another - a description that covers a broad range of obvious and hidden qualities.” As per Dutta & Bose (2006), gender diversity is about having women on the board of the company, a relevant facet of diversity in the board. Carter et al. (2003) says that diversity enhances the board independence as women have the propensity to raise their query and concerns on the company issues than male directors’. Diversity in decisions and solutions to queries enables to provide more analytical and ample of aspects to deal with the issues. Doldor et al. (2012) found that there are four points to be looked to represent the case of increase in the number of female directors’. Various evidences and reports were published in order to encourage diversity on the basis of gender in the company boards. Matsa and Miller (2011) says that women have expertise that are being valued more by certain environments, like that of marketing of packaged consumer goods. The women underrepresentation in board is also due to the glass ceiling factor. Niederle et al. (2007) found that some people even says that women diminishes due to competition for promotions either they require to be away from stress or unable to bring balance in work-life and executive office case due to which is ultimately leads to supply concerns (Matsa and Miller, 2011). The findings of Julizaerma et al. (2012) shows a positive relation between female directors’ and company performance saying that women representation can give an increased financial performance of the company. Female representation increase the governance aspect of organisation as well apart from being positively impacting the performance, as they are being more vigilant in constantly attending board meeting, voluntarily in joining board committes and to oversee performance. Adams & Ferreria, 2009 says that find new proofs that female have heterogeneity in their behaviour compared with the males and found that females positively impact the measures of board efficiency. And further they observe in their positive relationship of diversity with performance. Board of directors’ diversity consists of people from heterogeneous environment, race, ethnicity, skill, expertise, experiences, gender which will enhance company value and performance through novel insights, perspective, creativity, innovation to name a few and ultimately leads to effectively solving the issues. Diversity ensures a dedication for the upliftment of people from diverse backgrounds and a responsibility towards a non-discrimination policy of minority directors, investors. Although societal norms and cultural factors about the suitability of the job between women and men is a hindrance among other factors and also there are industries that even stereotype women, limited opportunities available to women to further in the race of development. Researchers of diversity finds that as per resource dependency theory in order to cope up with uncertain and complicated environment, leadership from diverse backgrounds of people will help to deal with the ever changing scenario effectively and efficiently. Peterson & Philpot (2007) observe the probability between the female and male directors’ to be a member of standing committee wherein female through their connections with the resource provider which will provide support to organisation will enable them more to be appointed in various committees. Terjesen & Singh (2008) examines different environmental systems that affects the organisation in respect to women’s representation in the board, where they study 43 countries and found that greater female on corporate boards have positive

correlation with women in senior role as well as greater parity in male and female pay, whereas countries with lesser women political representation have increased representation of female on corporate boards. Talmud & Izraeli (1999) says that the aspect of gender is not a specific equity only but more of a system engrained within the work area, occupational climate by seeking support from official protocols, regulations and habit of mental architecture where people think about their social society and all these things cannot be phased out easily. Adams & Flynn (2005) undertakes a novel and diverse structure of critical theory wherein they have developed process that can hinder the change in relation to female representation on the board of the company. The factors that are posing restraint are at individual, organisational, group and outside the company environment and then with the help of structural, relational and intellectual spectrum the board creates an actionable knowledge. Konrad et al. (2008) finds that females are more inclined to raise questions in a way that decisions are not finalised without discussing relevant aspects and it is also observed that CEOs are tend to be more verbal and participating in case of greater female representation on the board of the company. Erkut et al. (2008) says that true change happens when more women are on the board and they feel that the environment is more agreeable, accepting, less restricting in relation to thinking of others (especially of male directors') and resulting in positive interrelationship.

Significance of the study

Carter et al. (2010) says the outcome of the fixed effect regression finds a positive relation between both on number of women, ethnic minorities and the return on assets. In contrast found no relationship when Tobin Q is used as performance measure. The results also finds a positive link between number of women in majority of board committee and return on assets and no relation when Tobin Q is used. Their outcome suggests that there is no link between gender, ethnic minority diversity and company performance. Further it is being observed that there is negative association between board diversity and performance which is consistent with the organisation's case of board of diversity. And also there are no evidence that suggests that there is no link either positive or negative in relation to board diversity and performance. Although they found positive relation between board diversity and performance but no proof of causation. Resource dependency and human capital theory finds a positive link of gender, ethnic diversity and performance. However, other theories says there is incompatibility to provide resources through women, ethnic directors that are being offset by societal cognitive influence of the board. In a way creation and originality in the decisions can be nullified due to differences in the group. However these results are in line with the contingency theory as women, ethnic minority directors can be positive, negative or neutral relation on performance as per the specific situations. The results of this study does not confirm any specific theory as the investigation was unstructured and not intending to focus any sole theory. The evidence do not favour any policy initiative that governs in favour of gender diversity and company performance. At the same time diversity in director behaviour is also welcomed to add to the board of director effectiveness. Grosvold et al. (2007) found that there are many reasons why board of directors' diversity

attained greater strategic prominence in the company. Part of investors have used diversity as an instrument while making investment in the stocks of the companies' and a pledge to include diversity in the employment work of socially responsible stock indices. It is also being preferred by the customers, supplier, employees of the company and other stakeholders which will act as an evidence of the organisation's management sincerity towards their stakeholders' liking, a sign of responsible towards them. And it is also a subject dialogue for the corporate governance best practices. Rose (2007) found that greater diversity leads to positive sign to prospective job candidates thereby drawing talented people outside the sphere in order to do recruitment. Diversity ensures that women and ethnic groups are included in the top positions in the organisation on the basis of their talent and qualification and creates greater internal competition within organisation. It improves the company reputation in the eyes of stakeholders' and also serve as positive sign to organisation environment. Also creates symmetry by matching organisations' internal policy with the environment. Terjesen & Singh (2008) indicates that there are many environmental factors related with the presence of female directors on the board of the company – percentage of female directors in the senior position, female pay disparity and ancient pattern of female representation. Even they found that there are greater female on board on those companies with greater number of female leaders on top position. They also found evidence regarding pay gap association with gender diversity, women are more in board positions and equal ground in those countries where there is no pay gap between male and female. They also found a climate of myth about female having directorship with public companies' and they found that historically greater directorship of female are not related with political factor. Also contemporary female political empowerment is related with higher women directors' which may be due to the fact that women pursue career more in politics than in business. There is evidence of having historically women in public figure of government in Norway, Sweden, but have less in number at senior positions in private and public listed companies. In the year 1992 countries like Slovenia, Czech Republic and Croatia which have elected 22%, 12% and 12% respectively female on board. They even found that demographic account of workforce is changing in Asia, Europe and America leading to greater female on board. The scandals of corporate governance in Parmalat, Enron have led to the way of novel regulations and rules related to structures and systems in the board of the company like Sarbanes-Oxley Act, etc. Adler (1997) says the need to search for next generation leaders globally arises from the global pool of men and women and so the importance of diversity in global pool is emphasized. Prudent global leaders says the leaders of other cultures should work sensitively and with full communication and interaction skills. The author also says some female global leaders that make use of influence and insight than control and direction to fulfil their aims. As per the organisational case of diversity it gives a competitive advantage in facing global challenges which diversity can bring in, also cross-cultural experience and transformational style of leadership expertise in the board. Powell (1999) cites in the review of glass ceiling says that in the past women were being looked as lacking the necessary skills like ambitious, courage in respect of men having authoritative and influential behaviour. And it is also observed that women were viewed to lack relevant expertise and educational qualities

necessary for leadership. Beasley (1996) says that the prospects of misleading the financial statements and indulging into the practices of earning management can be reduced due to increased diversity in the boards in relation to background and foundation of the member.

Objective

Board diversity promotes the efficiency of the board actions the performance and effectiveness of the organisation resulting in improved shareholder value and overall performance (Walt & Ingley 2003, Robinson & Dechant 1997). However, conclusive empirical evidences which are comprehensive needs to be submitted in this area. Hence, the paper examines the following objectives:

1. To review the past studies and surveys relating to the board diversity and company financial performance.
2. To examine whether diversity in the board of the directors of the companies listed in India will have any relation with company financial performance.

Review of literature

Simons et al. (1999) found that both cognitive and educational diversity were positively related with the performance of the organisation. But they found negative effect of experience diversity on the return on the investment and performance of the organisation in overall terms and the reason of this could be informal communication in the top teams and management. Elron (1997) studied the relation of member diversity and multiplicity of cultural diversity with the group cohesion where they do not found any relationship as such. But the results were positive in the case of cultural heterogeneity and issue based level of conflict. In the performance context, cohesion and issue based conflict both are positively related to the performance of the team and also the performance of the organisation. Maznevski (1994) studied the literature and work related to group diversity and questioned past research results about the decisions made by homogeneous groups are better than that of heterogeneous that is having diversity. And therefore argued in favour of diversity which has probable advantage when there is group and heterogeneous decision making. As per review of literature greater amalgamation and communication is helpful to estimate diverse group performance. Shrader et al. (1997) studied the financial performance of the firm and gender of the middle level and upper level management and in case of large firms at the board level. And they found generally acceptable organisational effects, where some effect of diversity at the top level with the performance, though found a positive association overall between gender diversity and financial performance of the organisation. They even justified their findings by giving reasons that those firms might be doing their recruitment from a vast talent of personnel reservoir and also from qualified candidates anyway of the gender. Bilimoria (2000) and Mattis (2000) had supported that women directors helped to stimulate competitive advantage through efficiently dealing with diversity in the product and labour markets. Bilimoria (2000) found women directors as leaders in bringing change as they are comparatively young in relation to their male counterparts, also more

welcoming to novice ideas and opportunities for doing business. Mattis (2000) found that the company's customer pool and labour force should be reflected by its diversity and this statement found to be applicable in the case of racial and gender diversity. Richard (2000) in a study conducted to show the association among company wide diversity, financial performance and business strategy in banking sector industry where equity return used as proxy for performance and market based performance measures of 64 banks in 3 states, found that diversity add the value and anticipated as having competitive edge for banks. Berghe & Baelden (2005) studied independence issue as a vital feature in establishing effectiveness of the board by way of monitoring, overseeing and in the directors' strategic roles. The eventual feature to ensure independence of the board is by recruiting sufficient independent directors on the board of the company. They found that the independent attitude of each and every board of director can be observed through their ability, board environment and willingness. Leung et al. (2014) examined in case of non-family firms there was a positive association in relation to board of director's independence and firm financial performance and the possible reason could be the independent directors in minority in case of family firms in comparison to non-family firms. Also recommendations by the Hong Kong based regulators in relation to board composition regarding board independence is on the voluntary basis. So in case organisation do not comply then the possible remedy for such thing is giving explanation for such non-compliance. Abdulla (2004) in a study measuring the association of independent directors with the firm performance of 412 companies of the KLSE in the Malaysian board found a significant positive correlation in relation to return on assets, earnings per share and profit margin. It is argued that board independence had a significant role in the performance of the company and also increased independent directors had an influence on the performance of the company. Fauzi & Locke (2012) conducted a study of New Zealand based stock exchange listed companies for period of 2007-2011 and found a negative relationship between non-executive directors and financial performance. It can be observed that with the increased number of non-executive there is a decline in the financial performance of the company. The reason for negative relation might be increased block holders share due to which the authority and influence of the non-executive directors diluted in boardroom discussion. But they found a positive association in case of one variable performance that is return on assets with the non-executive directors thereby ensuring that the company's assets are effectively and efficiently utilised which helps in income generation by the management under the supervision of non-executive directors. Garg (2007) in a study of Indian companies did not give any assurance to improve performance of the company on having independent directors on the board of company and the possible reason could be lacking on the part of the independent directors to play the assigned role of monitoring. Bathala & Rao (1995) found mixed evidence on the correlation of board composition with performance of the firm and the possible reason could be attributed due to the lacking on the part of inclusion of other variables that could have effect on the performance. And then they introduced other covariates like firm age, company size, dividend payout, block holder ownership, size of the board, past performance, leverage in the study to control for the influence of confounding

variable in the analysis. Coles et al. (2001) posed that the power to oversee and put surveillance on the investments made by them and have an edge on account of the investments which could probably affect the managerial behaviour. In case if the company failed to provide an optimum return could be a significant thing on part of managers because of the possible threat and danger that these block holders could sell of their huge share block.

Benefits of board diversity

Robinson & Dechant (1997) and Carter et al. (2003) list several benefits of increased boardroom diversity as given below:

1. Increased innovation and novice ideas: Diverse groups' enables creativity and novelty by pondering over a higher range of prospects of solving the problems. Groupthink problem is reduced in diverse board.
2. Greater market penetration capability: Diversity enables to comprehend the market in a better way which is a potential source of customers of the firma and to understand suppliers in a better manner.
3. Efficiency in problem-solving and corporate leadership: Diversity gives a heterogeneous perspectives which upon valuation of results in overall efficient solving of the problem in decision process and also improved in leadership effectiveness of the corporate.
4. Efficient global relationships: Diversity in the culture enables cross cultural responsiveness for the firm globally and results in building global relationships.

Costs of board diversity

Literature enumerates some costs of board diversity as well.

1. Lesser capability to start strategic change in downturn: During critical time of environment, proposals for change in strategic terms intensify and diverse groups less likely to start change like that of divestitures, service additions and reorganisation than in case of homogenous group (Goodstein et al. 1994).
2. Adverse effect of factional demographic fault lines: it creates factions of demographic lines which can be faulty and cannot curb the reflection on board functioning by impacting performance (Veltrop et al. 2015).

Hypothesis

H1: There is a positive relationship between board gender diversity and financial performance of the company.

H2: There is a positive relationship between board independence and financial performance of the company.

Sample selection

The sample selection begins with the companies comprising NIFTY 500, Indian capital market's broad-based benchmark representing about 96% of free float market capitalization of the stocks

listed on National Stock Exchange (NSE) for period between 2009 and 2015. Companies belonging to the banking and financial sector have been removed from the sample owing to their different set of regulations and capital structure requirements in line with prior work in literature. In total, companies in the following sectors – information technology, pharmaceuticals, healthcare, and consumer goods have been selected. And companies with incomplete data have been excluded. This left finally with a sample of 98 companies for the analysis. The data is collected from secondary sources. The board-level diversity (gender) data has been arranged from annual reports of the companies from their respective official websites and other board level (independent directors), company level data has been obtained from Prowess which is maintained by Center for monitoring Indian economy (CMIE). Prowess in Indian context is analogous to Compustat in the USA context. And for the variable gender of the board of directors, it is hand collected by going through the corporate governance report of companies for seven years from their websites as Prowess does not provide full information on gender of directors. The annual reports of the companies for all the years have also been downloaded and the data was also checked in case of any names that have left out in the process to ensure that all directors which had the standard prefix of Ms., Mrs., Smt., Mr., Shri are included. Sufficient care has been taken to make sure that we had covered all the women in the data set. This study captures both demographic as well as statutory diversity variable. Demographic diversity of board members has been captured through attribute like gender of the board of directors of the company. Statutory diversity has been captured based on the independence status of the board members as reported by each company.

The following are the variables used for studying the relationship between board diversity and company performance.

Dependent variable

Financial performance is captured using proxy performance by Tobin's Q. Computing Tobin's Q is difficult in Indian context, primarily because a large proportion of the corporate debt is institutional debt that is not actively traded in the debt market. Further, most companies report asset values to historical costs rather than at replacement costs. So the Tobin's Q in this paper is measured by computing a sum of market capitalization of equity plus debt divided by total assets.

Table A1 (Independent variables)

Women(female) directors	This variable captures the percentage of women directors on the board of directors	Wd
Independent directors	This variable captures the percentage of independent directors on the board of directors	id

Table B2 (Control variables)

Company size(Total Assets)	This variable captures the total assets which is natural logarithm of total assets	Logsize
Company size(Total Sales)	This variable captures the total sales which is natural Logarithm of total sales	logsizesales
Total age	This variable captures the natural logarithm of number of years between incorporation and observation	Logage

Model specification

Panel models provide a number of improvements over the separate analysis of time series by cross-section. First, panel data allow for considerably more flexibility in the modelling of the behaviour of cross-sectional units than conventional time series analysis (Greene, 2003). Second, the panel framework allows for the analytical incorporation of significantly more observations (and more degrees of freedom) than would a comparable analysis of individual time series. In panel data, the same cross-sectional unit is surveyed over time. In short, panel data have space as well as time dimensions (Gujarati et al. 2011).

The following is the regression model for studying the relationship of board diversity and company financial performance:-

$$CP_{i,t} = \alpha_i + \beta_1 wd_{it} + \beta_2 id_{it} + \beta_3 logsize_{it} + \beta_4 logsizesales_{it} + \beta_5 logage_{it} + \mu_{it}$$

Where,

CP_{it} = Financial performance measured by Tobin's Q for company i in period t

wd_{it} = Percentage of womendirectors for company i in period t

id_{it} = Percentage of independent directors for company i in period t

$logsize_{it}$ = The size of company as measured through natural logarithm of total assets for company i in period t

$logsizesales_{it}$ = The size of company as measured through natural logarithm of total sales for company i in period t

$logage_{it}$ = The age of the company i in period t

μ = Disturbance term

Empirical evidences

Descriptive statistics of all the variables, namely, independent, dependent and control have been shown in Table C3 and D4 for 686 observations corresponding to 98 sampled companies for seven years.

Table C3 (Dependent and Independent variable)

Variable	Obs	Mean	Std. Dev.	Min	Max
tq	686	2.74076	3.64085	0	69.6429
wd	686	7.20162	7.56527	0	28.5714
id	686	53.6392	11.5698	0	90.9091

Source – Research outcome

The minimum number of women directors for all the observation is 0 while the maximum number goes up to 28 with the average number of 7 and the variation in women directors is 7.5. And the minimum number of independent directors is 0 with maximum value and variation of 90 and 11 respectively, the average number is 53. Tobin's Q varies from a minimum value of 0 to a maximum value of 69 with an average value of 2.7 and variation of 3.6.

Table D4 (Control variable)

Variable	Obs	Mean	Std. Dev.	Min	Max
logsize	686	1.31857	0.1421863	0.60206	1.43421
logsizesales	686	4.18736	0.6019984	2.41313	5.86679
logage	686	1.5025	0.2757547	0.47712	2.18184

Source – Research outcome

The Hausman test is invoked to find the preferred model from (Random or Fixed) the two panel data models (Gujarati & Porter, 2009). The following Table E5 indicates the results of Hausman Test.

The test statistic developed by Hausman has an asymptotic χ^2 distribution. If the null hypothesis is rejected, the conclusion is that ECM (error components model) or REM (random effects model) is not appropriate and that we may be better off using FEM, in which case statistical inferences will be conditional on the ϵ_i in the sample (Gujarati, pg. 651). Based on the present analysis given in Table E5, it can be inferred from the results that null hypothesis may not be accepted (pvalue= 0.000), which means that the fixed effect model is appropriate.

Table E5 (Hausman Test)

	—Coefficients—			sqrt(diag(V _b -V _B)) S.E.
	(b) fixed	(B) random	(b-B) Difference	
wd	0.05176	0.071999	-0.0202	0.01269
id	0.0078	0.004117	0.00368	0.00492
logsize	0.42535	0.247824	0.17753	.
logsizesales	0.65112	1.272634	-0.6215	0.83811
logage	13.6855	-0.14691	13.8324	3.47617
b = consistent under Ho and Ha; obtained from xtreg				
B = inconsistent under Ha, efficient under Ho; obtained from xtreg				
Test : Ho: difference in coefficients not systematic				
chi 2(5) = (b-B)' [V _b -V _B] ⁽⁻¹⁾ (b-B)				
=41.47				
Prob>chi2 = 0.0000				
(V _b -V _B is not positive definite)				

Source – Research outcome

Based on the results of the hausman test (given in Table C5), fixed effect estimation model has been applied to study the relationship between board diversity and company performance and the result of which is given in Table F6.

Table F6 (Fixed effect model)

Fixed-effects (within) regression				Number of obs = 686		
Group variable : cname				Number of groups = 98		
R-sq:				Obs per group:		
within = 0.1981				min = 7		
between = 0.4519				avg = 7.0		
overall = 0.3501				max = 7		
				F(5,583) = 12.69		
corr(u _i ,Xb) = -0.8283				Prob > F = 0.0000		
tq	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
wd	0.0517	0.0245	2.11	0.035	0.0035	0.0999
id	0.0077	0.0136	0.57	0.568	-0.0189	0.0345
logsize	0.4253	0.68	0.63	0.532	-0.9102	1.7609
logsizesales	0.6511	0.939	0.69	0.488	-1.1932	2.4954
logage	13.685	3.6278	3.77	0	6.5601	20.81
_cons	-21.899	3.893	-5.63	3.4	-29.546	-14.253

sigma_u	5.0974					
sigma_e	2.4489					
rho	0.8124	(fraction of variance due to u_i)				
F test that all u_i=0: F(97, 583) = 9.22					Prob > F = 0.0000	

Source – Research outcome

The software STATA follows a suggestion by Wooldridge (2002) and provides three different versions of R^2 with every fixed effect estimation output: - R^2 within, R^2 between, R^2 overall, R^2 within describes the goodness of fit for the observations that have been adjusted for their individual means, here our R^2 within is 0.1981. The R^2 between describes the goodness of fit for the N different individual means and in our model R^2 between is 0.4519. And finally, the R^2 overall corresponds to the usual R^2 of OLS regression, our R^2 is 0.3501. If the p value for the F-test of overall significance test is less than your significance level, you can reject the null-hypothesis and conclude that your model provides a better fit than the intercept-only model. Here in our model p-value of F statistic is 0.000, it means that the estimated coefficients are jointly significantly different from zero. Table F6 shows the results of fixedeffect model estimates where women director value is statistically and positively related with financial performance and we do not find the statistical significant relation between the independent directors and performance of the companies under study. Even we do not find statistical significant relation for all the company size proxies and total age with the financial performance.

Implications

1. As hypothesized and in accordance with few previous researches (Bonn et al. 2004; Carter et al. 2003) we found a statistically significant and positive relationship between gender diversity measured in terms of percentage of women directors to total number of directors and company financial performance measured by Tobin's Q at 90% significance level. This could possibly mean that companies with women directors are rewarded more by investors and female board members will bring diverse and different viewpoints, values and ways to express to the boardroom, initiate lively boardroom discussions. And also leads to better board dynamics and decision making.
2. We do not find a statistically significant relationship between board independence measured in terms of percentage of independent directors to total board of directors and company financial performance measured by Tobin's Q at 90% significance level consistent with some previous researches (Wallison, 2006; Garg, 2007). This possibly implies that board independence do not guarantee to improve firm performance due to improper monitoring roles of independent directors. And mere compliance with the recommendations is not enough if the independent directors fail to exercise their functions effectively.

Conclusions

The main objective of the present study is to analyse the relationship between board of directors diversity and financial performance of the companies listed in India. The study adopted the use of both descriptive and inferential statistics in ascertaining this relationship. The descriptive statistics include mean and standard deviation while inferential statistics include regression analysis. The study has contributed by providing important information relating to the effect of board of directors diversity (i.e. female directors and board independence) on financial performance. Board diversity would provide a variety of independent thinking and majority of them could reduce the dangers of group think. The panel data has helped to study the same company over a period of seven years. The study provides the basis for bringing a more effective board diversity representation at the strategic level of corporate world which builds the business case for having more diversity on the board room as there is positive relation between gender diversity (as measured by women director) and financial performance of the company (measured by Tobin's Q) indicating that when company has more of gender diversity it will result in having diverse viewpoints, fair and unbiased decision making in relation to the affairs of the company and the stakeholders. Even Indian Companies act 2013, has specified the limit of one women director in the board of directors for every companies listed in India and one-third board independence for the Indian listed companies.

Bibliography

1. Abdullah, S. N. (2004). Board composition, CEO duality and performance among Malaysian listed companies. *Corporate Governance: The international journal of business in society*, 4(4), 47-61.
2. Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*, 94(2), 290-309.
3. Adams, S. M., & Flynn, P. M. (2005). Local knowledge advances women's access to corporate boards. *Corporate Governance: An International Review*, 13(6), 836-846.
4. Adler, N. J. (1997). Global Leadership: Women Leaders. *Management International Review*, 37(1), 171-196.
5. Bathala, C. T., & Rao, R. P. (1995). The Determinants of Board Composition: An Agency Theory Perspective. *Managerial and Decision Economics*, 16(1), 59-69.
6. Beasley, M. S. (1996). An Empirical Analysis of the Relation Between the Board of Direct Composition and Financial Statement Fraud. *The Accounting Review*, 71(4), 443-465.
7. Berghe, L. V., & Baelden, T. (2005). The complex relation between director independence and board effectiveness. *Corporate Governance - the international journal of business in society*, 5(5), 61-83.

8. Bilimoria, D. (2000). Building the Business Case for Women Corporate Directors. In R. J. Burke, & M. C. Mattis, *Women on Corporate Boards of Directors* (Vol. 14, pp. 25-40). Netherlands: Springer.
9. Bonn, I., Yoshikawa, T., & Phan, P. H. (2004). Effects of Board Structure on Firm Performance: A Comparison Between Japan and Australia. *Asian Business & Management*, 3(1), 105–125.
10. Carter, D. A., Souza, F. D., Simkins, B. J., & Simpson, W. G. (2010). The Gender and Ethnic Diversity of US Boards and Board Committees and Firm Financial Performance. *Corporate Governance: An International Review*, 396–414.
11. Carter, D., Simkins, B. J., & Simpson, W. G. (2003). Corporate Governance, Board Diversity, and Firm Value. *The Financial Review*, 38(1), 33-53.
12. Coles, J. W., McWilliams, V. B., & Sen, N. (2001). An examination of relationship of governance mechanisms to performance. *Journal of Management*, 27(1), 23-50.
13. Doldor, E., Vinnicombe, S., Gaughan, M., & Sealy, R. H. (2012). Gender Diversity on Boards: The Appointment Process and the Role of Executive Search Firms. *Equality and human rights commission*, 85.
14. Dutta, P., & Bose, S. (2006). Gender Diversity in the Boardroom and Financial Performance of Commercial Banks: Evidence from Bangladesh. *The Cost & Management*, 34(6), 70-74.
15. Elron, E. (1997). Top management teams within multinational companies: Effects of cultural heterogeneity. *The Leadership Quarterly*, 8(4), 393-412.
16. Erkut, S., Kramer, V. W., & Konrad, A. M. (2008). Critical Mass: Does the Number of Women on a Corporate Board Make a Difference? In S. Vinnicombe, V. Singh, R. J. Burke, D. Bilimoria, & M. Huse, *Women on Corporate Boards of Directors: International Research and Practice* (pp. 222-232). Edward Elgar Publishing Limited.
17. Fauzi, F., & Locke, S. (2012). Board structure, ownership structure and firm performance: A study of New Zealand listed-firms. *Asian Academy of Management Journal of Accounting of Finance*, 8(2), 43-67.
18. Garg, A. K. (2007). Influence of Board Size and Independence on Firm Performance: A Study of Indian Companies. *Vikalpa: The Journal for Decision Makers*, 32(3), 39-60.
19. Goodstein, J., Gautam, K., & Boeker, W. (1994). The effects of board size and diversity on strategic change. *Strategic Management Journal*, 15(3), 241-250.
20. Greene, W. H. (2003). *Econometric Analysis*. Pearson Education.
21. Grosvold, J., Brammer, S., & Rayton, B. (2007). Board diversity in the United Kingdom and Norway: an exploratory analysis. *Business Ethics: A European Review*, 16(4), 344-357.
22. Julizaerma, M. K., & Sori, Z. M. (2012). Gender Diversity in the Boardroom and Firm Performance of Malaysian Public Listed Companies. *Procedia - Social and Behavioral Sciences*, 65, 1077-1085.

23. Kreitz, P. A. (2008). Best practices for managing organizational diversity. *The Journal of Academic Librarianship*, 34(2), 101-120.
24. Leung, S., Richardson, G., & Jaggi, B. (2014). Corporate board and board committee independence, firm performance, and family ownership concentration: An analysis based on Hong Kong firms. *Journal of Contemporary Accounting & Economics*, 10(1), 16-31.
25. Matsa, D. A., & Miller, A. R. (2011). Chipping away at the Glass Ceiling: Gender Spillovers in Corporate Leadership. *The American Economic Review*, 101(3), 635-639.
26. Mattis, M. C. (2000). Women Corporate Directors in the United States. In R. J. Burke, & M. C. Mattis, *Women on Corporate Boards of Directors* (Vol. 14, pp. 43-56). Netherlands: Springer.
27. Maznevski, M. L. (1994). Understanding our differences: Performance in decision-making groups with diverse members. *Human relations*, 47(5), 531-552.
28. Niederle, M., & Vesterlund, L. (2007). Do Women Shy Away From Competition? Do Men Compete Too Much? *The Quarterly Journal of Economics*, 122(3), 1067-1101.
29. Peterson, C. A., & Philpo, J. (2007). Women's roles on US Fortune 500 boards: Director expertise and committee membership. *Journal of Business Ethics*, 72, 177-196.
30. Porter, D. C., Gujarati, D. N., & Gunasekar, S. (2011). *Basic Econometrics*. Mc Graw Hill.
31. Powell, G. N. (1999). *Handbook of Gender and Work*. London UK: Sage .
32. Richard, O. C. (2000). Racial Diversity, Business Strategy, and Firm Performance: A Resource-Based View. *The Academy of Management Journal*, 43(2), 164-177.
33. Robinson, G., & Dechant, K. (1997). Building a Business Case for Diversity. *The Academy of Management Executive*, 11(3), 21-31.
34. Rose, C. (2007). Does female board representation influence firm performance?, The Danish evidence. *Corporate Governance: An International Review*, 15(2), 404-413.
35. Shin, P. S., & Gulati, M. (2011). Showcasing Diversity. *North Carolina Law Review*, 1017-1053.
36. Shrader, C. B., Blackburn, V., & Iles, P. (1997). Women in management and firm value: An exploratory study. *Journal of Managerial Issues*, 9(3), 355-372.
37. Simons, T., Pelled, L. H., & Smith, K. A. (1999). Making use of difference: Diversity, debate, and decision comprehensiveness in top management teams. *Academy of management journal*, 42(6), 662-673.
38. Talmud, I., & Izraeli, D. N. (1999).) The relationship between gender and performance issues of concern to directors: correlates of institution? *Journal of Organizational Behavior*, 459-474.
39. Terjesen, S., & Singh, V. (2008). Female Presence on Corporate Boards: A Multi-Country Study of Environmental Context. *Journal of Business Ethics*, 83(1), 55-63.
40. Veltrop, D. B., Hermes, N., Postma, T. J., & Haan, J. d. (2015). A Tale of Two Factions: Why and When Factional Demographic Faultlines Hurt Board Performance. *Corporate Governance: An International Review*, 23(2), 145-160.

41. Wallison , P. J. (2006). All the Rage: Will Independent Directors Produce Good Corporate Governance? *American Enterprise Institute for Public Policy Research*.
42. Walt, N. v., & Ingley, C. (2003). Board Dynamics and the Influence of Professional Background, Gender and Ethnic Diversity of Directors. *Corporate Governance: An International Review*, 11(3), 218-234.
43. Wooldridge, J. M. (2002). *Econometric Analysis of Cross Section and Panel Data*. United States of America: MIT press.