Chapter-6

Impact of Corporate Governance on Financial Performance and Social Performance of Companies

Corporate governance practices followed by companies can impact the companies' strategic decision-making, which influences companies' financial and operating performance. Good governance practices can also make companies follow more sustainable practices and focus on fulfilling the social responsibility of business. Companies that contribute to society have better goodwill and positive stakeholder's perception, leading to higher market value.

This chapter analyses the impact of corporate governance on the financial performance and social performance of companies. The chapter is divided into four sections, i.e., Methodology, Results and Discussions, Analysis of CG Variables, and Conclusion.

6.1 Methodology

The study's main objective is to analyze the impact of CG on the financial performance of companies. To fulfil this objective, data has been compiled for CG total score using a scoresheet and social performance score using another score sheet for a sample of 100 companies. The corporate governance total score (CG) has been classified into four categories, i.e. leadership, good, fair, and basic practices. The social performance score thus calculated has also been categorized into two subgroups: high social performance and low social performance. The data relating to 16 financial performance variables have been

collected from PROWESS for 2015 to 2019. Compound annual growth rate (CAGR) has been calculated for all the financial variables to analyze the long term impact of CG and social performance practices followed by companies. Exploratory Factor Analysis (EFA) has also been carried out to simplify the financial data and summarize these financial performance variables, which have been further classified into five factors extracted from EFA. Additionally, a detailed analysis of CG characteristics has been carried concerning ten variables, including board size, board independence, gender diversity, CEO duality, board meetings, audit committee members, and transparency of financial statements.

Hypotheses:

The following hypotheses have been framed for testing:

H_{010}: There is no significant impact of corporate governance on the financial performance of companies.

H_{011}: There is no significant impact of other firm characteristics on the financial performance of companies.

H_{012}: There is no significant impact social performance score on the financial performance of companies.

H_{013}: There is no significant difference in financial performance variables and corporate governance practices followed by companies

H_{014}: Change in the five-year financial performance of companies is not impacted by corporate governance score.

H_{015}: Change in the five-year financial performance of companies is not impacted by other firm characteristics.

H_{016}: Change in the five-year financial performance of companies is not impacted by the social performance of companies.

H_{017}: There is no significant difference in the five financial factors extracted and corporate governance practices followed by companies.

H_{018}: There is no significant difference in the five financial factors extracted and the social performance score of companies.

H_{019}: There is no significant difference in social performance score and corporate governance practices of companies

H_{020}: There is no significant difference in financial performance variables and social performance scores of companies

H_{021}: There is no significant difference in Board size of companies based on demographic characteristics.

H_{022}: Board size is not significantly related to different corporate governance practices.

H_{023}: Board size does not differ with social performance scores.

H_{024}: Board size does not impact firm performance.

H_{025}: There is no significant difference in board independence of companies based on demographic characteristics.

H_{026}: Board independence is not significantly related to different corporate governance practices.

H_{027}: Board independence does not differ with social performance scores.

H_{028}: Board independence does not impact firm performance.

H_{029}: There is no significant difference in the gender diversity of companies based on demographic characteristics.

H_{030}: Gender diversity is not significantly related to different corporate governance practices.

H_{031}: Gender diversity in board does not differ with social performance scores.

H_{032}: Gender diversity in board does not impact firm performance.

H_{033}: There is no significant difference in CEO duality of companies based on demographic characteristics.

H_{034}: CEO duality is not significantly related to different corporate governance practices.

H_{035}: CEO duality does not differ with social performance scores.

H_{036}: CEO duality does not impact firm performance.

H_{037}: CEO duality does not impact corporate governance characteristics

H_{038}: CEO duality does not impact financial performance variables

H_{039}: There is no significant difference in board meetings of companies based on demographic characteristics.

H_{040}: Board meetings are not significantly related to different corporate governance practices.

H_{041}: Board meetings do not differ with social performance scores.

H_{042}: Board meetings do not impact firm performance.

H_{043}: There is no significant difference in audit committee members of companies based on demographic characteristics.

H_{044}: Audit committee members are not significantly related to different corporate governance practices.

H_{045}: Audit committee members do not differ with social performance scores.

H_{046}: Audit committee members does not impact firm performance.

H_{047}: There is no significant difference in the audit firm category of companies based on demographic characteristics.

H_{048}: The audit firm category is not significantly related to different corporate governance practices.

H_{049}: The audit firm category does not differ from social performance scores.

H_{050}: Audit firm category does not impact firm performance.

H_{051}: Audit firm category does not impact corporate governance characteristics

H_{052}: Audit firm category does not impact financial performance variables

H_{053}: There is no significant difference in transparency in the financial statements of companies based on demographic characteristics.

H_{054}: Transparency in the disclosure of financial statements is not significantly related to different corporate governance practices.

H_{055}: Transparency in disclosure of financial statements does not differ with social performance scores.

H_{056}: Transparency in disclosure of financial statements does not impact firm performance.

H_{057a}: Audit concerns on financial statements does not impact corporate governance characteristics

H_{057b}: Concerns of secretarial audit does not impact corporate governance characteristics

H_{058a}: Audit concerns on financial statements do not impact financial performance variables

H_{058b}: Concerns of secretarial audit does not impact financial performance variables

H_{059}: There is no significant impact of financial variables on the firm performance of companies.

6.2 Results and Discussions

The analysis of results has been carried out in four sub-sections. Sub-section one covers correlation analysis of all variables used for the study, sub-section two analyses the impact of CG on the financial performance of companies, sub-section three analyses impact of firm characteristics on change in financial performance using CAGR data, and sub-section four explains the relationship of social performance with financial performance variables.

6.2.1 Correlation Analysis of Variables

The correlation analysis aims to determine the relationship between CG score and 16 financial performance variables. It helps to know the direction and the degree of the relationship. This also helps to identify variables that need to be dropped due to multi-co linearity.

Table 6.1- Correlation Between Variables

	CG Score	Beta	Closing Price	Market Cap	Enterprise Value	EPS	P/E ratio	P/B ratio	Total Debt ratio	Tobin's Q	ROE ratio	EBIT	ROCE	ROA ratio	Return on Sales ratio	Dividend Yield
CG Score	1															
Beta	-.040	1														
Closing Price	-.076	-.001	1													
Market Cap	.434**	-.079	-.049	1												
Enterprise Value	.397**	.021	-.052	**.947****	1											
EPS	-.043	.026	**.930****	-.051	-.048	1										
P/E ratio	-.049	.042	**.049**	-.034	-.087	-.045	1									
P/B ratio	-.097	-.220*	.101	.123	.086	-.017	.339**	1								
Total Debt ratio	.042	.077	-.089	.251*	.336**	-.071	-.156	-.219*	1							
Tobin'sQ	-.111	-.359**	.108	.056	.001	-.017	**.419****	**.896****	-.211*	1						
ROE ratio	-.062	-.337**	.015	.095	.003	.022	-.054	**.627****	-.201	**.517****	1					
EBIT	**.461****	-.066	-.070	**.789****	**.722****	-.031	-.166	-.085	.230*	-.091	.179	1				
ROCE	-.046	**-.412****	.055	.123	.010	.066	-.036	**.651****	-.281**	**.572****	**.922****	.162	1			
ROA ratio	-.052	**-.419****	.018	.125	.019	.040	-.049	**.515****	-.270**	**.524****	**.905****	.179	**.921****	1		
Return on Sales ratio	-.017	-.131	-.034	.072	.045	-.021	.078	.204*	-.298**	**.346****	.434**	.227*	**.413****	**.563****	1	
Dividend Yield	.136	.086	-.126	.092	.081	-.091	-.193	-.177	.347**	-.139	.133	**.426****	.047	.123	.195	1
CSR Spend	.030	.254*	-.106	-.088	-.122	-.090	.017	-.092	.029	-.061	.058	.018	-.016	.082	.078	.168

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 6.1 shows that closing price is positively and highly correlated with Earnings per share (0.930). Market capitalization is positively and significantly related to Enterprise value (0.947) and Earnings Before Interest and Tax (EBIT) (0.789). CG score is significantly positively associated with Earnings Before Interest and Tax (EBIT), i.e. 0.461. Enterprise value is positively and highly correlated with EBIT (0.722).

Price to earnings ratio is positively correlated with Tobin's Q (0.419). The price to book ratio is positively correlated with Tobin's Q (0.896), Return on equity (0.627), return on capital employed (0.651) and return on assets ratio (0.515). This shows that the Price to book ratio might have multicollinearity as it is highly correlated with other variables. Thus, it can be dropped for regression analysis.

Similarly, Tobin's Q also has a high degree of positive correlation with Return on equity (0.517), Return on capital employed (.572), Return on assets (.542) and Return on sales (.346). All these variables are statistically significantly related at a significance level of 0.05. Return on equity is significantly positively associated with return on capital employed (0.922) and return on assets (0.905). This implies that one of these variables need to be dropped for further regression analysis.

EBIT has a strong degree of correlation with Dividend yield (0.426). Return on capital employed is also statistically significantly related with a high degree of positive relationship with Return on assets (0.921) and Return on sales ratio (0.413). Return on asset is again highly correlated with Return on sales (0.563), which is statistically significantly related at 0.05 level of significance. This indicates that Return on sales variable should be dropped for further analysis.

It is seen that many variables are highly correlated with each other, and data is suitable for further analysis.

6.2.2 Impact of Corporate Governance on Financial Performance

This sub-section is divided into two parts. Part one is regression analysis, where the financial performance variable is taken as the dependent variable with a CG score as the independent variable. Part two interpret the outcome of ANOVA, w.r.t. association between CG practices and 16 financial performance variables.

6.2.2.1 Regression Analysis

This study tries to determine which variables have a significant impact on the financial performance of companies. For this purpose, multiple regression analysis has been chosen. The initial regression model includes all potentially important variables from Table – 3.7 (Table defining financial performance variables). After this backward method of eliminating variables, the optimum regression model covering the ten independent variables has arrived at.

Table 6.2- Multiple-Regression Model for Impact of Corporate Governance on Financial Performance

	Unstandardied Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-1413386.096	625589.706		-2.259	.027
Corporate Governance Score	18635.598	8345.293	.082	2.233	.028
Ownership	-106835.233	88096.568	-.043	-1.213	.229
Industry Sector	50684.692	23582.757	.077	2.149	.035
Beta Measure of volatility	-267049.006	140693.556	-.074	-1.898	.061
Enterprise Value	.878	.034	.975	25.748	.000
Price to Earning ratio	1796.483	778.416	.084	2.308	.024
Total Debt ratio	-.333	.164	-.070	-2.026	.046

Tobin's Q	-15648.683	12085.450	-.056	-1.295	.199
CSR Spend	3061387.722	2708415.446	.036	1.130	.262
Return on Equity ratio	893582.973	413475.575	.089	2.161	.034
Dependent Variable: Market Capitalization					
Explanation of the model:			**Significance of the Model:**		
R Square	.932		F	104.088	
Adjusted R Square (R^2)	.923		Sig.	.000[i]	
Durbin-Watson test = 1.826					

Table 6.2 shows the multiple regression model to analyze the impact of CG on FP. After correlation analysis, few of the variables were dropped, and for this analysis, only 10 variables were put in the regression model. This helps understand the relationship between CG and FP by studying the impact on firm's performance. Since financial performance is not just affected by CG but also has other contributing factors, 12 financial performance variables are used in the model and the CG score. Descriptive variables like ownership; industry; MNC versus nationally-located, private versus public, ownership were also independent variables in this model.

All the variables in the final model follow a normal distribution. This is as tested by the Kolmogorov-Smirnov test. The evaluated regression model is highly significant as the F ratio is 104.088 at a 0 percent significance level. The autocorrelation of residuals in SPSS 22 is tested with the use of the "Durbin-Watson test". Because of the calculated value of 1.826 and the Table of critical values, there is no problem in the auto correlation of residuals in the evaluated model. Residuals are also tested out for normality using the "Kolmogorov-Smirnov test", which shows that residual follows the normal distribution. The problem of heteroscedasticity does not exist. So, the data is fit for the application of regression analysis.

The primary regression equation followed is presented below.

Financial Performance = a + Demographic Characteristics + CG score + social performance score + firm characteristics

The degree of explanation of the model is very high as the adjusted R^2 is 92.3 percent. This also tells us about the robustness of the model, as it tries to explain the maximum variables.

The dependent variable in the model is market capitalization. Market capitalization is calculated by the market price of the share X Number of outstanding shares. This is an accurate indicator for understanding the wealth maximization principle because it depicts the actual (market-accepted) value of a 100 percent equity stake of a company, i.e. Price that a buyer may have to pay to acquire a company without considering the premium completely. Any increase or decrease in the market capitalization indicates improvement/ decline in the operating performance of a company that results from the efficiency of the top management. Price of a share in the stock market is a true reflector of the performance not only from an operational perspective but also based on the qualitative growth factors. Shares whose prices are rising indicate that the company's overall performance is good, and with this premise, for this study, market capitalization was chosen as an indicator of the company's financial performance.

If we look at the significance level of all the ten variables loaded significantly, the CG score is highly significant. It has a coefficient value(B) of 18635.598, which shows a high explanation and contribution of CG in the final model. Thus, indicating that it is an important variable contributing to the company's financial performance. So, *the null hypothesis (H_{010})* that there is no significant impact of CG on the financial performance of

companies is not supported. If the CG score improves, then market capitalization also enhances. CG score and market capitalization have a positive relationship.

Similarly, the industry sector has a positive relationship (coefficient value is 50684.692). Beta shows an inverse relationship (-267049.066), if volatility is high, then its market price will tend to fall or will have an inverse effect on the market capitalization ratio. Total debt also has an inverse relationship, but the coefficient value is very low (-0.333), more debt leads to lower market capitalization. CSR spend also shows a positive correlation (3061387.722) to financial performance or market capitalization, and the degree is also positive. Return on equities also has a positive coefficient (893582.973), which is very high. Ownership (promoter, institutional and widely held) has an inverse relationship (-106835.233), but it has a low degree of significance in the model. Thus, the *null hypothesis* (H_{011}) that there is no significant impact of other firm characteristics on the financial performance of companies is partially supported as the model is significant for the price to earnings ratio, CSR spends, Industry sector, Enterprise Value, and ROE. The null hypothesis (H_{012}) that there is no significant impact social performance score on the financial performance of companies is supported as the social performance score was eliminated by the model.

The final computed model for the study is given hereunder.

Market capitalisation = -1413386.096 +50684.692 (industry sector) -106835.233 (Ownership) + 18635.598 (Corporate Governance score) -267049.006 (Beta) + .878 (Enterprise value) + 1796.483 (Price to earnings ratio) - 0.333 (Total debt ratio) - 15648.683 (Tobin's Q) + 3061387.722 (CSR Spend) + 893582.973 (Return on Equity ratio)

From the above analysis, it can be concluded that CG score, industry sector, enterprise value, Price to earnings ratio, CSR spend and return on equity positively correlate with market capitalization. Ownership, Tobin's Q, Beta and Total debt ratio are inversely loaded on the model. So, market capitalization is influenced by CG score, Price to earnings ratio, CSR spend, industry sector, Enterprise value and Return on equity. Thus, $H_{010}$is not supported,$H_{011}$is partially supported, and $H_{012}$is supported.

6.2.2.2 Relationship of Corporate Governance Practices with Financial Performance Variables

The impact of corporate governance practices on FP variables has also been identified by analyzing the financial performance variables for different companies following different corporate governance practices. The corporate governance practices have been classified based on CG score as leadership practices, good practices, fair practices and basic practices. Table 6.3 shows ANOVA results for differences in CG practices of companies and their financial performance variables.

Table 6.3 - ANOVA Results of Differences in Corporate Governance Practices and Financial Performance Variables

		Sum of Squares	df	Mean Square	F	Sig.
Return on Equity ratio	Between Groups	.168	3	.056	2.716	**.049**
	Within Groups	1.859	90	.021		
	Total	2.027	93			
CSR Spend	Between Groups	.000	3	.000	.050	.985
	Within Groups	.026	83	.000		
	Total	.026	86			
Dividend Yield ratio	Between Groups	52100.683	3	17366.894	1.061	.370
	Within	1472812.502	90	16364.583		

	Groups					
	Total	1524913.184	93			
Return on Sales ratio	Between Groups	.051	3	.017	.542	.655
	Within Groups	2.801	90	.031		
	Total	2.851	93			
Return on Assets ratio	Between Groups	.043	3	.014	1.803	.152
	Within Groups	.723	90	.008		
	Total	.767	93			
Return on Capital Employed	Between Groups	.148	3	.049	2.046	.113
	Within Groups	2.175	90	.024		
	Total	2.324	93			
Earnings Before Interest and Tax (EBIT)	Between Groups	131502647220.082	3	43834215740.027	6.312	**.001**
	Within Groups	625054889287.924	90	6945054325.421		
	Total	756557536508.006	93			
Tobin'sQ	Between Groups	143.554	3	47.851	1.933	.130
	Within Groups	2228.455	90	24.761		
	Total	2372.009	93			
Total Debt ratio	Between Groups	254335630206.292	3	84778543402.097	.827	.483
	Within Groups	9231704489383.580	90	102574494326.484		
	Total	9486040119589.870	93			
Price by book ratio	Between Groups	337.445	3	112.482	1.661	.181
	Within Groups	6500.076	96	67.709		
	Total	6837.521	99			
Price to Earning ratio	Between Groups	19391.834	3	6463.945	1.541	.209
	Within Groups	402674.943	96	4194.531		
	Total	422066.777	99			
Earning Per	Between	106051.785	3	35350.595	.436	.727

share	Groups					
	Within Groups	7777148.804	96	81011.967		
	Total	7883200.589	99			
Enterprise Value	Between Groups	31374099508570.200	3	10458033169523.400	4.790	**.004**
	Within Groups	209615238126062.000	96	2183492063813.140		
	Total	240989337634632.000	99			
Market Capitalization	Between Groups	30788531446115.000	3	10262843815371.700	6.204	**.001**
	Within Groups	158817380805622.000	96	1654347716725.230		
	Total	189605912251737.000	99			
Closing Price	Between Groups	150683340.486	3	50227780.162	1.253	.295
	Within Groups	3846885977.774	96	40071728.935		
	Total	3997569318.261	99			
Beta-Measure of volatility	Between Groups	.366	3	.122	.531	.662
	Within Groups	22.072	96	.230		
	Total	22.438	99			

ANOVA test (Table- 6.3) was carried out, where Return on equity ratio has F value of 2.716, which is statistically significant at 0.049 level of significance, indicating that Return on equity significantly impacts the CG practices of the companies. It also shows that the null hypothesis (H_{013}) that there is no significant difference in the CG practices of companies based on Return on equity is rejected. CSR spending and its relationship with the CG practices of companies has a low F value of 0.050, which is not significant at a 5 percent level of significance. This indicates that CSR spend does not influence or does not impact the CG practices followed by the companies. There is no significant impact of CSR spends on CG practices are supported by the null hypothesis. Earnings before interest and tax (EBIT) has an F value of 6.312, which is statistically significant at a 0.001 level of

significance, indicating a significant difference in the CG practices of companies with different levels of earnings before interest and tax (EBIT). Profitability has a direct relationship with the CG practices of companies.

More profitable companies have better CG as compared to less profitable companies. Enterprise value has an F value of 4.790, which is a statistically significant 0.04 level of significance. This indicates that the null hypothesis is not supported, and there is a difference in the CG practices having different enterprise values. Similarly, market capitalization has an F value of 6.204, which is significant at a 0.001 significance, showing that the null hypothesis is not supported. Thus null hypothesis (H_{013}) is partially supported.

Table 6.4- Duncan Post Hoc Test on Differences in Corporate Governance Practices and Return on Equity

Corporate Governance Practices	N	Subset for alpha = 0.05
		1
Basic	7	.041592493628534
Leadership	4	.096993013896994
Good	39	.130835897534364
Fair	44	.187106214293970
Sig.		.050

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 9.066.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

To analyze the significant relationship between a few of the financial performance variables which significantly impact the corporate governance practices, the Duncan Table 6.5 shows the findings of a post-hoc test to see if there are any changes in CG policies regarding return on equity.

The results indicate that companies with fair corporate governance practices have their Return on equity levels different from those with basic corporate governance practices. Thus *null hypothesis* H_{013} is not supported for Return on equity and corporate governance practices.

Table 6.5- Duncan Post-Hoc Test on Differences in Corporate Governance Practices and Earnings Before Interest and Tax

Corporate Governance Practices	N	Subset for alpha = 0.05		
		1	2	3
Basic	7	-839.357		
Fair	44	29422.598	29422.598	
Good	39		87471.182	87471.182
Leadership	4			155013.200
Sig.		.441	.142	.088

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 9.066.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Table 6.5 shows the results of the Duncan Post-hoc test on differences in the CG practices and Earnings before Interest and Tax (EBIT). It was found that companies in the leadership and basic category have significantly different Earnings before interest and Tax (EBIT). However, leadership category companies have higher Earnings before interest and Tax (EBIT) than companies following basic CG practices. The result also indicates that if a company has higher Earnings before interest and Tax (EBIT), it can make the CG practices better for the company. So, *null hypothesis* H_{013} is not supported for EBIT and CG practices.

Table 6.6- Duncan Post Hoc Test on Differences in Corporate Governance Practices and Enterprise Value

Corporate Governance Practices	N	Subset for alpha = 0.05	
		1	2
Fair	47	699533.3543	
Basic	7	805448.1329	
Good	42	1536897.4164	
Leadership	4		3068334.2625
Sig.		.258	1.000

Table 6.6 indicates the results of the Duncan Post-hoc test on differences in corporate governance practices and Enterprise value. It shows that the companies under leadership category practices have their enterprise value standout significantly high with a value of 3068334.265 compared to other groups. This indicates that enterprise value is very high for leadership category companies compared to the rest of the three groups of CG practices. It also conveys that Enterprise value does get influenced by the CG practices of companies. So, *null hypothesis* H_{013} is not supported for Enterprise value and CG practices.

Table 6.7- Duncan Post Hoc Test on Differences in Corporate Governance Practices and Market Capitalization

Corporate Governance Practices	N	Subset for alpha = 0.05	
		1	2
Basic	7	530501.4186	
Fair	47	669554.9123	
Good	42	1386777.3445	
Leadership	4		3132199.2625
Sig.		.184	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 9.134.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Duncan Post-hoc test results, as shown in Table 6.7, analyse the differences in the CG practices based on the market capitalization of companies. The companies that follow leadership CG practices have significantly different or very high market capitalization than those following basic, fair and good practices.

This reveals that companies with higher market capitalization have better CG practices, and these companies might improve their CG practices with time. This also implies that having well CG practices may impact the market capitalization of the firm positively. Thus, *null hypothesis* H_{013} is not supported for market capitalization and CG practices.

Overall, it can be summarized that companies' level of CG practices has a significant influence on some of the financial variables like Return on Equity ratio, Enterprise value, Earnings before Interest and Tax (EBIT) and Market capitalization. This indicates that if companies start performing better in their CG practices, they will do well in terms of these ratios, which are very important financial performance indicators. The *null hypothesis*H_{013}that there is no significant difference in financial performance variables and CG practices followed by companies is partially supported as the values are significant for Return on Equity ratio, Enterprise value, Earnings before Interest and Tax (EBIT) and Market capitalization.

6.2.3 Impact of Firm Characteristics on Change in Financial Performance (CAGR Analysis)

This sub-section has been divided into three sub-parts. Part one carries out regression analysis with CAGR values of financial performance variables and CG score. Part two conducts Exploratory Factor Analysis (EFA) for summarizing financial performance

variables into factors. And part three analyses differences in CG practices of companies for five financial factors extracted by EFA.

6.2.3.1 Regression Analysis (CAGR)

For this analysis, five-year data of financial performance variable was used (2015-2019) to calculate the CAGR values (compound annual growth rate of companies). The basic premises that CG practices were made compulsory after the Companies Act, 2013, and the companies had adopted CG practices after this time. Since companies were using these practices for a more extended period and CG being a strategic decision is not revised daily. An analysis of CAGR values of five years performance of the company would give a true insight on the effectiveness of CG practices followed by companies. It will also depict that whether CG practices have a long term impact on financial performance or not. The five-year CAGR values of these variables were taken along with CG score, social performance score, demographic characteristics like age of the company, industry sector, ownership, public-private, MNC versus National located status were inserted in the model, and backward method of regression analysis was carried out.

Table 6.8- Multiple-Regression Model of Impact of Firm Characteristics on Change in Financial Performance (CAGR)

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.363	.265		-1.370	.175
Ownership	-.055	.040	-.141	-1.363	.177
Industry Sector	-.021	.010	-.206	-2.213	.030
Dividend Yield ratio (CAGR)	.000	.000	-.250	-2.743	.008
Return on Equity ratio (CAGR)	-.144	.131	-.104	-1.101	.274
Tobin'sQ (CAGR)	.008	.004	.188	1.884	.063
Earning Per share (CAGR)	.000	.000	-.556	-2.279	.025
Enterprise Value (CAGR)	4.713E-08	.000	.335	3.559	.001

Corporate Governance Score	.007	.004	.211	2.038	.045
Closing Price (CAGR)	1.666E-05	.000	.498	2.036	.045
Dependent Variable: Change In Market Capitalization (CAGR)					
Explanation of the model:			**Significance of the model:**		
R Square	.467		**F**	7.503	
Adjusted R Square (R^2)	.405		**Sig.**	.000[i]	

Table 6.8 shows an analysis of the regression model to analyze the impact of firm characteristics on changes in financial performance.By the backward method of elimination of variables, only nine variables could load in the final model. The final regression model is significant with the F value of 7.503, which is highly significant at 0.001 level of significance and the adjusted R square of the model is 0.405, which indicates that the model explains 40.5 percent of the total explanation of the change in the financial performance of the company. Market capitalization (CAGR) was used as the dependent variable because it is a true indicator of companies' financial performance and reflects the top management performance as well, as it captures the perception of investors about the actual performance of the companies through the stock market prices. Five-year CAGR values of change in market capitalization were taken as the dependent variable. The level of significance for the variables which are independently impacting the change in the financial performance of the companies over 5 years period, indicate that industry sector, dividend yield ratio, Tobin's Q, Earning per share, Enterprise value, CG score, Return on equity and Closing price of the company have a significant impact on the changes in the financial performance over a period of five years.

Financial Performance = a + Demographic Characteristics + corporate governance score + social performance score + firm characteristics

The final significant computed model for the study is given hereunder.

Change in Market capitalisation = -0.363- 0.021 (industry sector)-0.055(Ownership) + 0.007(Corporate Governance score)+ 0.000(Earnings per share CAGR) + 4.713E-08(Enterprise value CAGR)+1.666E-05(Closing price CAGR) + 0.000(Dividend yield ratio CAGR)+0.008(Tobin's Q CAGR) - 0.144(Return on Equity ratio CAGR)

The industry sector has an inverse relationship. Return on equity CAGR has an inverse relationship. However, the Return on equity is not highly significant, and also the value of the coefficient is very low -0.144. All other variables load positively on the model. The CG score is significant at a 5 percent level, but the coefficient value is low (0.007). However, it significantly contributes to the change in the market capitalization of companies. The *null hypothesis* (H_{014}) that the difference in the five-year financial performance of companies is not impacted by CG score is not supported. Enterprise value (CAGR) and closing price (CAGR) are also loading in the model significantly, but their coefficient values are very low.

It can be interpreted that this model has an explanatory power of 40.5 percent, and it reconfirms the previous model of Table 6.2.Changes in market capitalization over five years depending upon the company's dividend yield, Return on equity, Tobin's Q, Earnings per share, CG total score, Closing price, Enterprise value, ownership, and Industry sector. Thus *null hypothesis* (H_{015}) that other firm characteristics do not impact change in the five-year financial performance of companies is partially supported. *The null hypothesis* (H_{016}) that the social performance of companies does not influence change in the five-year financial performance of companies is supported as the model eliminated social performance. Thus H_{014} is not supported,$H_{015}$is partially supported, and $H_{016}$is supported.

It can be concluded from the above analysis that the current year performance of the company is dependent on the variables which have been discussed in Table 6.2. However, these variables are also relevant and impact changes in the financial performance of companies over five years. Variables that have held their place in the regression model explained in Tables 6.2, and 6.8 indicate that these variables are significant and impact the company's financial performance. These variables are of strategic importance and should be studied and analyzed while taking any decisions related to how to improve the financial performance of companies as they can have a significant impact on the strategic decision making by the company. As a result, ownership, industrial sector, enterprise value, return on equity ratio, Tobin's Q, and CG total score have emerged as major characteristics that influence a company's market cap in both the short (annual) and long term (five-year).

6.2.3.2 Exploratory Factor Analysis (EFA) of Financial Performance Variables

Bartlett's test of sphericity (Table –6.9) shows the chi-square value (1277.372) is high and makes data fit for factor analysis. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is 0.585, indicating that data is appropriate for factor analysis.

Table 6.9- KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.585
Bartlett's Test of Sphericity	**Approx. Chi-Square**	1277.372
	df	120
	Sig.	.000

Table – 6.10 shows Varimax rotated factor matrix results for all 16 financial variables. Five factors have been extracted, which account for 76.996 percent of cumulative variance. It shows that 76.996 percent of the total variance is explained by the information in the varimax rotated matrix. The principal component analysis yielded five factors with Eigen values greater than 1.

Table 6.10- Rotated Component Matrix and Factor Naming

Component Variables	Resultant Factor Names				
	F1: Return on Assets Ratios	**F2: Valuation-related factor**	**F3: Long term market growth factor**	**F4: Replacement Value factor**	**F5: Stakeholder-related factor**
Return on Assets ratio	.960				
Return on Capital Employed	.947				
Return on Equity ratio	.935				
Return on Sales ratio	.523				
Market Capitalization		.943			
Enterprise Value		.941			
EBIT		.891			
Total Debt ratio		.539			
Earnings Per share			.980		
Closing Price			.977		
Price by book ratio				.615	
Price to Earnings ratio				.853	
Tobin's Q				.696	
CSR Spend					.757
Dividend Yield ratio					.596
Beta					.528
Eigen values	4.359	3.132	1.976	1.685	1.167
percentage of Variance	27.246	19.574	12.351	10.532	7.293
Cumulative percentage	27.246	46.821	59.171	69.703	76.996

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations.

Factor loadings represent the coefficient of correlation between a variable and its factors. The factor loading below 0.40 has been left. The name of factors and factor loading are summarised in Table – 6.10.

The principal component analysis technique was used to generate the rotated component matrix. Results show that all the 16 component variables were clubbed into five factors. The names of these factors have been defined based on the component variables, which are included in a particular factor. These are discussed hereunder:

F1: Return on Assets Ratios- Factor one has been named on return ratios. In this, almost all the Return related ratios like Return on assets ratio, which has a factor loading of

0.960, return on capital employed has a factor loading of.947, return on equity which also has a very high factor loading of 0.35 and return on sales which load significantly on this factor, has a factor loading of 0.523, are incorporated. So factor one, which comes out, is the principal component for this analysis and explains 27.2 46 percent of the total variance.

F2: Valuation-Related Factor- The second factor, which is named after the valuation-related factor, includes four variables, market capitalization, which has a very high factor loading of 0.93, enterprise value, EBIT and total debt ratio. These four variables reflect the company's valuation and other vital ratios used at the time of valuation. This particular factor explains 19.574 percent of the total variance.

F3: Long-term market growth factor - The third factor, which explains 12.351 percent of the total variance, is the long-term market growth factor. It includes two crucial variables that are essentially seen when the long-term market growth of a company is checked: earnings per share and the company's closing price.

F4: Replacement Value factor- The fourth factor which explains 10.532 percent of the total variance includes three variables: Price to book ratio; Price to earnings ratio, and Tobin's Q. These ratios are important when a company wants to check its replacement value or when a company has to replace certain assets.

F5: Stakeholder-related factor- The fifth factor explains 7.293 percent of the total variance associated with stakeholders' related factors. It loads three significant variables: CSR spending (how companies giving back to the society); dividend yield ratio (how much shareholders returns in the form of dividend), and Beta, which talks about the

volatility of the stock in the market (affect the risk and return relationship of the stakeholder). This factor has been named as a stakeholder-related factor.

The exploratory factor analysis (EFA) summarized 16 financial performance variables into five factors: Return on assets ratio, Valuation-related factor; long-term market growth factor; replacement value factor and stakeholder-related factor.

The standardized regression scores of these five factors were saved in SPSS 22 and used to analyze the relationship of five factors extracted with CG practices and social performance scores.

6.2.3.3 Extracted Financial Factors and Corporate Governance Practices

The five factors computed from EFA, i.e. Return on assets ratio; valuation-related factor; long-term market growth factor; replacement value factor and stakeholder-related factor, have been used to analyze their relationship with companies' corporate governance practices. Table 6.11 discusses ANOVA results to identify the differences in CG practices of companies and these five financial factors which have been extracted.

Table 6.11- ANOVA Results for Difference in Corporate Governance Practices of Companies and Extracted Financial Factors

		Sum of Squares	df	Mean Square	F	Sig.
Return on Assets Ratio	**Between Groups**	2.742	3	.914	.911	.439
	Within Groups	83.258	83	1.003		
	Total	86.000	86			
Valuation-related factors	**Between Groups**	12.913	3	4.304	4.888	**.004**
	Within Groups	73.087	83	.881		
	Total	86.000	86			
Long term market growth	**Between Groups**	2.124	3	.708	.701	.554
	Within Groups	83.876	83	1.011		
	Total	86.000	86			
Replacement	**Between Groups**	3.448	3	1.149	1.156	.332

Value	**Within Groups**	82.552	83	.995		
	Total	86.000	86			
Stakeholder-related factor	**Between Groups**	1.240	3	.413	.405	.750
	Within Groups	84.760	83	1.021		
	Total	86.000	86			

To understand the significant differences between CG practices followed by companies and the financial factors identified, ANOVA results show that the valuation-related factor F value is 4.888, which is statistically significant at the 0.05 level of significance. This indicates that CG practices vary for companies for valuation-related factors. The valuation-related factor has variables like market capitalization, Enterprise value, EBIT and Total debt ratio.

So it is an important variable that will impact the CG practices followed by companies, or we can say that CG practices will impact their valuation-related factor. However, the ANOVA results are insignificant for the rest of the four factors, i.e. Return on assets ratio, Long term market growth factor, Replacement value factor and Stakeholder-related factor.

Table 6.12- Duncan Post Hoc Results for Differences in Valuation-Related Ratios and Corporate Governance Practices Categories

Corporate Governance Practices	**N**	**Subset for alpha = 0.05**	
		1	**2**
Basic	5	-.3806456	
Fair	42	-.3174238	
Good	36	.3035263	.3035263
Leadership	4		1.0770202
Sig.		.174	.104

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 7.975.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

From Duncan Post-hoc results, Table 6.12, wherein the corporate governance practices have been classified into four groups- basic, fair, good and leadership practices, it is found

that company' leadership practices and basic practices significantly differ for valuation-related factors. So, the null hypothesis (H_{017}), that there is no significant difference in five financial factors extracted and corporate governance practices followed by companies, is partially supported only for valuation-related factors.

6.2.4 Relationship of Social Performance with Financial Performance Variables

This sub-part of the analysis discusses the relationship of social performance with financial performance variables. Here, research has been carried out with three different perspectives; CSP relationship with financial factors which has been extracted is studied; then the association of social performance with CG practices has been analyzed, and in third, the relationship of CG CSP with financial performance variable has been investigated.

The company's social performance score was categorized into two categories- high social performance score and low social performance score.

Table 6.13 discusses ANOVA results for differences in the social performance of companies and financial factors extracted by PFA.

Table 6.13- ANOVA Results for Difference in Social Performance of Companies and Extracted Financial Factors

		Sum of Squares	df	Mean Square	F	Sig.
Return on Assets ratio	Between Groups	.182	1	.182	.180	.673
	Within Groups	85.818	85	1.010		
	Total	86.000	86			
Valuation-related factor	Between Groups	.143	1	.143	.141	.708
	Within Groups	85.857	85	1.010		
	Total	86.000	86			
Long term	Between Groups	.817	1	.817	.815	.369

market growth	Within Groups	85.183	85	1.002		
	Total	86.000	86			
Replacement Value	Between Groups	.067	1	.067	.067	.797
	Within Groups	85.933	85	1.011		
	Total	86.000	86			
Stakeholder-related factor	Between Groups	9.849	1	9.849	10.994	**.001**
	Within Groups	76.151	85	.896		
	Total	86.000	86			

Analysis of the results shows that stakeholder-related factors are significantly different with the F value of 10.994, which is statistically significant at the 0.01 level of significance. This indicates that the social performance of companies is statistically significantly different for stakeholder-related factor.

Stakeholder-related factors (including values like CSR spending of the company, dividend yield ratio and Beta) were significantly different for different levels of social performance. Shareholders and society look at how much company are spending on CSR-related activities, how companies are giving back to society; and how companies perform on social aspects and fulfil the SDG.

For the rest of the variables like Return on asset ratio, valuation-related factor, long-term growth factors, and replacement value factor, the ANOVA results were insignificant, indicating that these factors are not significantly different for a high or low degree of social performance followed by the companies. The null hypothesis (H_{018}) that there is no significant difference in the five financial factors extracted and social performance score of the companies is partially supported for stakeholder-related factors. The CG practices were further analyzed for understanding the differences in the Corporate Governance (CG) practices followed by companies and the social performance of the companies.

Table 6.14- ANOVA Results for Difference in Social Performance of Companies and Corporate Governance Practices

Corporate Governance Practices		CSP Score category		Total
		Low	High	
Leadership	N	2	2	4
	percent	50.0%	50.0%	100.0%
Good	N	15	27	42
	percent	35.7%	64.3%	100.0%
Fair	N	13	34	47
	percent	27.7%	72.3%	100.0%
Basic	N	4	3	7
	percent	57.1%	42.9%	100.0%
Total	N	34	66	100
	percent	34.0%	66.0%	100.0%
ANOVA		F	Sig.	
		0.014	0.908	

The results of the ANOVA, as shown in Table 6.14, show insignificant results with an F value of 0.014, which is not statistically significant at 0.05 level of significance. This indicates that corporate governance practices do not vary or are not statistically significantly different for different companies' social performance levels. This means that it will not affect their social performance if they follow good corporate governance practices, fair practices, or basic practices. This also indicates that the social performance of companies is dependent on financial performance more than the corporate governance of the company. So, the null hypothesis (H_{019}) that there is no significant difference in companies' social performance scores and corporate governance practices is supported.

Finally, to analyze the relationship between the social performance of companies and the 16 financial performance variables taken for the study, results are compiled in Table 6.15. As discussed earlier, the social performance score of the company's was divided into two categories- high social performance score and low social performance score.

Table 6.15- ANOVA Results for Difference in Social Performance of Companies and Financial Performance Variables

		Sum of Squares	df	Mean Square	F	Sig.
Beta-Measure of volatility	Between Groups	.693	1	.693	3.124	**.080**
	Within Groups	21.745	98	.222		
	Total	22.438	99			
Closing Price	Between Groups	37155961.914	1	37155961.914	.919	.340
	Within Groups	3960413356.346	98	40412381.187		
	Total	3997569318.261	99			
Market Capitalization	Between Groups	953655823849.700	1	953655823849.700	.495	.483
	Within Groups	188652256427888.000	98	1925023024774.360		
	Total	189605912251737.000	99			
Enterprise Value	Between Groups	727500926960.214	1	727500926960.214	.297	.587
	Within Groups	240261836707672.000	98	2451651394976.240		
	Total	240989337634632.000	99			
Earnings Per share	Between Groups	86350.375	1	86350.375	1.085	.300
	Within Groups	7796850.214	98	79559.696		
	Total	7883200.589	99			
Price to Earnings ratio	Between Groups	7579.052	1	7579.052	1.792	.184
	Within Groups	414487.725	98	4229.467		
	Total	422066.777	99			
Price by book ratio	Between Groups	18.691	1	18.691	.269	.605
	Within Groups	6818.829	98	69.580		
	Total	6837.521	99			
Total Debt ratio 2019	Between Groups	35539580549.480	1	35539580549.480	.346	.558
	Within Groups	9450500539040.390	92	102722831946.091		
	Total	9486040119589.870	93			
Tobin's Q	Between Groups	8.327	1	8.327	.324	.571
	Within Groups	2363.682	92	25.692		
	Total	2372.009	93			
Return on Equity ratio	Between Groups	.062	1	.062	2.906	**.092**
	Within Groups	1.965	92	.021		
	Total	2.027	93			
Earnings	Between	3223067836.308	1	3223067836.308	.394	.532

Before Interest and Tax (EBIT)	Groups					
	Within Groups	753334468671.698	92	8188418137.736		
	Total	756557536508.006	93			
Return on Capital Employed	Between Groups	.015	1	.015	.617	.434
	Within Groups	2.308	92	.025		
	Total	2.324	93			
Return on Assets ratio	Between Groups	.010	1	.010	1.182	.280
	Within Groups	.757	92	.008		
	Total	.767	93			
Return on Sales ratio	Between Groups	.103	1	.103	3.463	**.066**
	Within Groups	2.748	92	.030		
	Total	2.851	93			
Dividend Yield ratio	Between Groups	75584.532	1	75584.532	4.798	**.031**
	Within Groups	1449328.653	92	15753.572		
	Total	1524913.184	93			
CSR Spend	Between Groups	.001	1	.001	4.686	**.033**
	Within Groups	.024	85	.000		
	Total	.026	86			

Beta, a measure of volatility, shows a significant F value of 3.124,indicating statistical significance at a 0.05 level. This shows that companies having different levels of Beta have different social performance scores. Similarly, the results are significant for the Return on equity ratio with the F value of 4.906 which is statistically significant at a 10 percent level of significance. The return on equity ratio was also found to be statistically significantly different for different levels of social performance. Return on sales ratio was also found to be statistically significantly different with an F value of 3.463, which is significant at a 5 percent level of significance. This indicates that different social performance companies have different Return on sales ratio. The dividend yield ratio was also statistically significantly different with the F value of 4.798, meaning that high social performance companies and low social performance companies have different dividend

yields .Finally, the CSR spends ratio shows a significant F value of 4.686, implying that the results are statistically significantly different at a 0.5 percent level of significance. This means that high-performance companies will have high CSR spending, and low-performance companies will have low CSR spending in their financial reports.

Thus, the null hypothesis (H_{020}) is partially supported for Beta, ROE, ROS ratio, Dividend yield ratio, and CSR spend ratio. However, the rest of the variables were found to be insignificant.

The overall analysis reveals that the social performance score of companies impacts the stakeholder-related factor. Social performance is not significantly associated with the corporate governance practices of companies. Social performance may impact Beta, Return on equity, Return on sales ratio, Dividend yield ratio, and CSR spend ratio.

6.3 Analysis of Corporate Governance Variables

This analysis explains the main CG variables that influence its performance. These variables have been extensively researched and significantly impact firm's performance. These include ten main corporate governance variables, namely board size, board independence, gender diversity in the board, CEO duality, number of board meetings, audit committee members, audit firm category from Big four(KPMG, Deloitte, EY and PWC) or non-big four, (Transparency of financial statements) audit concerns on financial statements, and concerns of secretarial audits. This sub-section is divided into nine sub-sections. The relationship of corporate governance variables has been analysed concerning corporate governance total score, corporate governance score categories, corporate governance practices, social performance score, demographic variables, sixteen financial

variables, five financial factors extracted, and finally suggesting a best-fit regression model explain firm performance.

6.3.1 Descriptive Analysis of Corporate Governance Variables

This part includes two sub-parts. Part one covers the descriptive analysis of ten corporate governance variables, and part two discusses their correlation analysis with all variables.

6.3.1.1 Descriptive Statistics

The descriptive analysis of main corporate governance variables has been carried out in Tables 6.16 to 6.18. These include ten characteristics: board size, independent directors, number of board meetings, number of members in audit committee, number of independent directors in audit committee, percentage of women directors, Common CEO and Chairman, audit firm category, and audit concern on financial statements and concern of secretarial audit. This data has been collected for 100 companies. The ten variables have been studied for differences in Private vs PSU firms and Industry sector-wise differences.

Table 6.16 - Descriptive Statistics of Corporate Governance Variables

	Mean	Std. Deviation	Minimum	Maximum
Board Size	11.50	2.852	6	22
Independent Director	4.96	1.979	0	9
Women Directors (percent)	16.00	8.759	0	43
Number of Board Meetings	7.31	4.153	0	31
CEO Duality	.65	.479	0	1
Number of Members in Audit Committees	4.33	1.364	0	9
Number of Independent Directors in Audit Committee	1.24	1.670	0	7
Audit firm category	.66	.476	0	1
Audit Concerns on Financial Statements	.21	.409	0	1

Concerns of Secretarial Audit	.09	.288	0	1

Table 6.16 explains descriptive statistics of corporate governance variables. The table shows that board size has a mean value of 11.50, a standard deviation of 2.852. Independent directors in a company's mean value are 4.96, the percentage of women directors is 16 percent on average, and the number of board meetings held in a year in a company average score is 7.31. The maximum numbers of meetings are 31, CEO duality has a mean score of 0.65. The numbers of members in the audit committee mean value is 4.3 with a standard deviation of 1.364, the maximum number of members in the audit committee are 9 in a company, the number of independent directors in the audit committee mean value is1.24. The audit firm category variable is categorized into big four firms ((KPMG, Deloitte, EY and PWC) and non-big four firms. The mean value is 0.66. Audit concerns that consider any matter raised by the auditor related to the problems in the financial statements have a mean value of 0.21. Concerns of secretarial audit associated with the company secretary's corporate governance audit have a mean value of 0.09.

Table 6.17 - Descriptive Statistics of Corporate Governance Variables based on Public vs Private Sector

		Private	PSU
Board Size	**Mean**	11.13	12.9
	Std. Deviation	2.784	2.719
	Minimum	6	8
	Maximum	22	18
Independent Director	**Mean**	4.54	6.52
	Std. Deviation	1.873	1.569
	Minimum	0	4
	Maximum	9	9
Women Directors (percent)	**Mean**	17.61	9.95
	Minimum	0	0
	Maximum	43	29
Number of Board Meetings	**Mean**	6.47	10.48
	Std. Deviation	2.717	6.577
	Minimum	0	0
	Maximum	18	31
Number of Members in Audit	**Mean**	4.19	4.86

Committees	**Std. Deviation**	1.262	1.621
	Minimum	0	3
	Maximum	8	9
Number of Independent Director in Audit committee	**Mean**	1.253	1.19
	Std. Deviation	1.698	1.6
	Minimum	0	0
	Maximum	7	4

Further companies were divided into two groups private and PSU sector companies. The results of descriptive statistics of differences in corporate governance characteristics based on the private vs PSU sector are given in Table 6.17. The table shows that for board size, the mean value of PSU is higher (12.9) than the private sector company mean value (11.13). In terms of independent directors, again PSU has a larger number of independent directors (6.52) than private sector companies (4.54). The percentage of women directors on the company's board, private sector companies, has a better average percentage (17.6 1) than PSU (9.95). The number of board meetings held in a year shows that PSU has more board meetings, with an average value of 10.48 than private sector companies, which have an average of 6.47 meetings held in a year. The number of members in the audit committee reflects that both the public and private sectors have an almost similar number of members. For audit committee members, the average value in the private sector is 4.19 and 4.86 in the public sector. With regard to the number of IDs in the audit committee, private sector companies came with a better average value (1.253) than PSU (1.19).

Table 6.18 - Descriptive Statistics of Corporate Governance Characteristics based on Industry Sector

		HealthCare	Information Technology	Financials	Consumer Staples	Energy	Materials	Consumer Discretionary	Industrials	Utilities and Telecom
Board Size	Mean	10.00	10.17	10.60	11.10	14.00	12.53	11.43	12.22	11.25
	Std. Deviation	1.291	.753	2.160	2.514	2.108	2.875	3.056	5.167	.500
	Minimum	8	9	7	7	10	7	6	6	11
	Maximum	12	11	14	15	18	17	16	22	12
Independent Director	Mean	4.29	5.33	5.52	3.90	6.50	4.60	4.29	4.67	5.25
	Std. Deviation	1.799	1.033	2.023	1.663	1.841	2.261	1.139	2.828	.500
	Minimum	2	4	0	1	4	0	2	1	5
	Maximum	7	7	9	6	9	8	6	8	6
Women Directors percent	Mean	20.86	23.67	13.52	16.50	8.90	17.80	18.79	15.22	13.25
	Minimum	13	20	0	8	0	8	10	0	0
	Maximum	30	30	29	30	20	43	33	25	27
Number of Board Meetings	Mean	5.57	7.17	8.76	5.60	13.10	5.93	5.50	6.22	5.25
	Std. Deviation	1.272	2.787	4.371	1.578	7.031	2.187	1.286	2.774	3.775
	Minimum	4	5	0	4	5	0	4	0	0
	Maximum	8	12	18	8	31	8	8	9	9
Number of Members in Audit Committees	Mean	4.00	4.33	4.36	5.20	4.40	4.33	4.07	3.78	4.50
	Std. Deviation	1.155	1.862	1.823	1.317	1.075	1.113	1.141	.667	1.000
	Minimum	3	3	0	3	3	3	2	3	4
	Maximum	6	8	9	7	6	7	6	5	6
Number of Independent Directors in Audit Committees	Mean	1.714	0.666	1.08	1.8	0.8	0.733	1.071	2.111	2.5
	Std. Deviation	1.38	1.632	1.823	2.097	1.475	1.387	1.328	1.833	1.732
	Minimum	0	0	0	0	0	0	0	0	0
	Maximum	3	4	7	6	4	4	3	4	4

The categorization based on industry sector-wise classification of CG variables are shown in Table 6.18. Sample of 100 companies is divided into nine industrial sectors. In terms of board size, the energy sector has the highest number of BoD (14), the second-highest number of BoD is with the material sector (12.53), and the healthcare sector has the lowest number of BoD (10). The number of IDs is highest in the energy sector (6.50), and in the information technology sector, the number of independent directors is 5.52, the lowest number of IDs is 3.90, which is in the consumer staples sector. The percentage of women directors in companies is highest in the Information Technology sector (23.67 percent), the second-highest is in the Healthcare sector (20.86 percent), and the lowest percentage of women directors is in the energy sector (8.90 percent). The number of meetings held during the year is highest for the energy sector (13.10), the second-highest is in the financial sector (8.76), and the lowest numbers of meetings are held in the utilities and telecom sector (5.25). The number of BoD in the AC is highest in consumer staples, with a mean score of 5.20 and the lowest in the industrial sector with a mean value of 3.78. In the number of independent directors in the audit committee, the highest independent directors are in the utilities and telecom sector (2.5), and the lowest number of IDs is in information technology (0.666).

6.3.1.2 Correlation Analysis

To understand and explain the descriptive of corporate governance variables, correlation analysis has been carried out for corporate governance variables and some other important financial variables. As shown in Table 6.19, the correlation analysis reveals that the CG total score is highly directly correlated with market capitalization with a 0.434 value of correlation. Board size is highly correlated with the number of independent directors, with

a high degree of positive correlation of 0.553. Independent directors are again highly directly correlated with the number of meetings of the BoD (0.493) and the number of IDs in the audit committee (0.466). The number of board meetings held in a year is also positively correlated with IDs in the audit committee, with a high degree of positive correlation of 0.555. It is also associated with concerns of secretarial audit (0.425), which is a high degree of positive correlation. Finally, CEO duality has a high degree of significant positive correlation with the audit firm category with a value of 0.491.

Table 6.19- Correlation Analysis of Corporate Governance Characteristics

	Market Capitalization	Return on Assets ratio	Age (in Years)	CG	Social Performance Total Score	Board Size	Independent Directors	Women Directors	Number of Board Meetings	CEO Duality	Number of Members in Audit Committee	Number of independent directors in Audit committee	Audit Firm Category	Audit Concerns on the financial statements	Concerns of Secretarial Audit
Market Capitalization	1														
Return on Assets ratio	.125	1													
Age (in Years)	-.013	.079	1												
CG	**.434****	-.052	.097	1											
Social Performance Total Score	-.077	.006	.212*	-.019	1										
Board Size	-.152	-.175	.037	.003	-.032	1									
Independent Directors	-.200*	-.213*	.017	-.011	-.052	**.553****	1								
Women Directors	.032	.262*	.051	-.116	-.114	-.269**	-.359**	1							
Number of Board Meetings	-.009	-.021	.036	-.020	-.093	.270**	**.493****	-.290**	1						
CEO Duality	.102	.172	.022	.060	-.030	-.280**	-.322**	.222*	-.199*	1					
No. of Member in Audit Committee	.018	-.158	-.125	.002	-.047	.196	.207*	-.197*	.233*	-.022	1				
No. of independent director in Audit committee	-.184	.082	-.017	-.281**	-.067	.189	**.466****	-.133	**.555****	-.240*	.203*	1			

Audit Firm Category	.014	.017	-.009	-.093	-.073	-.165	-.313**	.342**	-.294**	**.491****	-.208*	-.283**	1		
Audit Concerns on the financial statements	-.056	.036	-.110	-.073	-.094	.156	.226*	-.017	.181	-.188	.129	.016	-.200*	1	
Concerns of Seceterial Audit	-.052	.040	-.015	.130	-.059	.227*	.290**	-.232*	**.425****	-.355**	.040	.322**	-.364**	.267**	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The above analysis indicates that board size has a high degree of positive correlation with independent directors, which suggests that the greater the board size of a company, the larger the number of independent directors in a company. Similarly, the companies which have more independent directors also have more board meetings during the year. Further, companies that have more independent directors also have more independent members in the audit committee. It is also seen that the number of board meetings is significantly positively correlated with concerns of secretarial audit and the number of independent directors in the audit committee. So if a secretarial audit has found some concerns in the financial statements, it has a direct relationship with the number of board meetings that are held in a year. Also, companies that have more IDs in the audit committee have more board meetings. CEO duality is also directly correlated with the audit form category, indicating that companies with dual roles of CEO and Chairman of the BoD give the auditing contract to big four firms (KPMG, Deloitte, EY and PWC)rather than small or non-big four audit companies.

So, to summarise the analysis of corporate governance variables, we can conclude that the mean value of board size is 11.50. The mean of independent directors in a company is 4.96, the average percentage of women directors in a company is 16 percent, and 7 is the number of board meetings and which board meetings are held in a company. The number of board members in the audit committee mean is 4.33, and the number of IDs in the audit committee is 1.24.

The public sector companies have performed relatively better for board size, independent directors, number of board meetings held in a year and number of members in the audit committee compared to private sector companies.

The corporate governance variables concerning industrial sector classification show that the energy sector has a higher level of corporate governance characteristics in terms of board size, the number of Independent Directors (IDs), number of board meetings held in a year. Information technology has the highest average percentage of women directors. The consumer staples industry has the most audit committee members, whereas the industrial sector has the most independent audit committee members.

Further, board size is positively correlated with the number of independent directors, and independent directors are positively correlated with the number of meetings of the board, held in a year, and the number of IDs in the audit committee. CEO duality is positively related to the audit firm categories. Board meetings are again positively correlated with the concerns of the secretarial audit and the number of independent members in the audit committee.

6.3.2 Board Size and Firm Performance

This subpart analysis of board size and firm performance tries to explain the relationship between the size of the board and firm social performance variables. An ANOVA test has been carried out for this analysis, and demographic characteristics wise differences in board sizes have been evaluated. This test helps to understand whether demographic variables influence the size of the board or not.

(Note: Levene test was applied before ANOVA to know homogeneity of variance, since all values of levene statistics were found insignificant. Thus, data was fit for ANOVA)

Table 6.20 - Demographic-wise Differences in Board Size

	ANOVA		Duncan's Post Hoc
Age	F	1.183	

	Sig.	.320	
Private Vs. PSU	F	6.831	Private vs PSU
	Sig.	**.010**	
MNC vs Nationally-located	F	.153	
	Sig.	.697	
Ownership	F	.054	
	Sig.	.948	
Industry Sector	F	2.227	HealthCare, IT, Financials and Energy
	Sig.	**.032**	
Corporate Governance Practices	F	1.179	
	Sig.	.322	
Social Performance Score	F	4.446	High and Low
	Sig.	**.038**	

It was found that for age, the F value of 1.183 was insignificant at 0.320 level of significance for differences in board size, indicating that the size of the board does not vary with age. For the private sector and PSU, it is found that ANOVA(F value 6.831) is statistically significant at 0.010 level of significance, which indicates that for the private vs PSU sector, the size of the board varies. For the industry sector, ANOVA results are statistically significantly different with an F value of 2.227 and 0.032 level of significance for HealthCare, IT, financials and energy sector as shown in Duncan post hoc test in Table 6.20. Results indicate that board size is impacted by the industrial sector a company belongs to and whether it is a private sector and PSU sector undertaking. It is found that board size has no relationship with corporate governance practices followed by the companies, but social performance score is found to be statistically significantly different with the F value of 4.446 and 0.038 significance, meaning that the board size of companies with high social performance scores is different as compared to the board size of companies with low social performance scores.

The result of Table 6.20 indicates *null hypothesis*H_{021} that there is no statitical difference in the board size of companies based on demographic characteristics is partially supported. The board size of companies is influenced by public vs private sector companies and the industry sector to which it belongs. The *null hypothesis* $H_{022}$is supported, that there is no significant difference in the board size based on different corporate governance practices followed by the companies. The *null hypothesis* H_{023}that the board size does not differ with social performance score is not supported as companies with high social performance and low social performance has different board sizes.

6.3.3 Board Independence and Firm Performance

Because Independent Directors (IDs) have no personal stake in the company, having them on board is often regarded as the best corporate governance practise in the world. The Companies Act of 2013 and SEBI both have mandated the nomination of an independent director in light of recent corporate scandals/frauds. SEBI, through its listing requirements, recommends that half of the board comprise IDs in the case of executive chairman and 1/3 of the board members should be IDs, in the case of non-executive chairman. Independent directors make choices that are neutral, favourable to the Company. They bring their experience and expertise, help conflict resolution and hold management and other directors responsible for their actions, views and decisions.

Table 6.21 results show the relationship between independence of the BoD and FP. The table shows demographic wise differences in board independence.

Table 6.21 - Demographic-wise Differences in Board Independence

	ANOVA		Duncan's Post Hoc
Age	F	.499	
	Sig.	.684	

Private Vs. PSU	F	19.734	Private vs PSU
	Sig.	**.000**	
MNC vs Nationally-located	F	8.662	MNC vs Nationally-located
	Sig.	**.004**	
Ownership	F	.814	
	Sig.	.446	
Industry Sector	F	1.929	Consumer Staples, Healthcare, Consumer discretionary and Energy
	Sig.	**.045**	
Corporate Governance Practices	F	3.043	Good and basic
	Sig.	**.033**	
Social Performance Score	F	1.224	
	Sig.	.271	

Table 6.21 tests that are there any statistically difference in the demographic characteristics and the number of independent directors. Concerning the age of the company and the number of independent directors on the board, the ANOVA test F value shows that there is no statistical difference. For private vs PSU companies, the ANOVA test F value is 19.734, which is statistically significantly different at a 0.05 level of significance. This indicates that the number of independent directors in PSU and private companies are different. It is also found that the F value, 1.929, is statistically significant for the board independence at 0.045 significance level. Duncan Post-hoc test also indicates that consumer staples, healthcare, consumer discretionary and energy sector have different numbers of independent directors on the board as compared to the rest of the industry sectors. Results also show a statistically significant difference in the number of independent directors companies and governance practices, as ANOVA F value 3.043 is significant at 0.033 level of significance. Duncan Post-hoc test indicates that the companies that follow good governance practices and the basic governance practices are found to have different numbers of independent directors on the board compared to the rest of the groups.

The results show, the null hypothesis *H025*, that there is no statistical difference in the board independence of companies based on demographic characteristics, is partially supported, as the results are statistically significantly different for private vs PSU, MNC vs Nationally-located and based on industry sector. The null hypothesis *H026* that there is no significant difference in the board independence of companies based on different corporate governance practices is not supported. However, the null hypothesis *H027*, that there is no significant difference in the board independence of companies based on social performance score, is supported as the ANOVA F value (1.224) is insignificant.

6.3.4 Gender Diversity and Firm Performance

SEBI (LODR) has mandated at least one women director on the board for bringing gender diversity. Women directors' roles and responsibilities, tenure, penalties for non-compliance are similar to any other board of directors.

To study gender diversity and its relationship with firm performance and to understand whether there are demographic differences in gender diversity and the number of women directors, the ANOVA test was conducted.

Table 6.22 - Demographic-wise Differences in Gender Diversity in Board

	ANOVA		Duncan's Post Hoc
Age	F	.094	
	Sig.	.963	
Private Vs. PSU	F	14.384	Private vs PSU
	Sig.	**.000**	
MNC vs Nationally-located	F	.065	
	Sig.	.800	
Ownership	F	.707	
	Sig.	.495	
Industry Sector	F	2.505	Energy and IT

	Sig.	**.017**	
Corporate Governance Practices	F	.403	
	Sig.	.751	
Social Performance Score	F	.520	
	Sig.	.472	

Before Uday Kotak Committee, many companies already had women directors. However, the committee observed that most of these companies had appointed such women directors from their families. Committee noted that companies were doing this to comply with the law in the letter merely. Therefore, to preserve the spirit of the law, Uday Kotak Committee recommended an independent women director on board.

Table 6.22 reflects the result of ANOVA, and it shows that age, MNC versus Nationally-located, ownership does not show any significant ANOVA results. This indicates that the four aforementioned demographic variables are not significant and does not impact the gender diversity on the board. For PSU and private sector companies, ANOVA(F value 14.384) is statistically significantly different at 0.000 level of significance, indicating that private companies have more women directors on their board than PSU. Industry sector-wise results show F value of 2.505 is statistically significant at the 0.017 level of significance and Duncan Post-hoc test shows a statistically significant difference between women director percentage in the energy sector and IT sector. It also indicates that these two industry sectors are statistically different concerning gender diversity on their board.

It can be concluded that the *null hypothesis*H_{029} that there is no significant difference in the gender diversity of companies based on demographic characteristics is partially supported. The results are significant for private vs PSU companies and the industry

sector. The *null hypothesis*H_{030}, that gender diversity is not significantly related to different corporate governance practices, is supported as ANOVA(F value =0.403)is insignificant. Similarly, the social performance score (F=0.520) value is also insignificant. This indicates that the null hypothesis H_{031}, that gender diversity on board does not differ with social performance score, is supported.

6.3.5 CEO Duality and Firm Performance

CEO is a person that holds the highest position in the management and is appointed to maximize the firm value. Whereas, in the board of directors chairman/managing director is a member with the highest power. Combining them can enhance the power of a single person. Overlapping of roles can also lead to a conflict of interest. To keep management and board of directors independent; avoid any influence of management on board decisions, SEBI (LODR)mandated that top 500 companies must separate the role of CEO and chairman by 2020. However, due to Covid-19, it has been extended till 2022.

Table 6.23 - Demographic-wise Differences in CEO Duality

	ANOVA		Duncan's Post Hoc
Age	F	2.680	0-25 years and 50-75 years
	Sig.	**.050**	
Private Vs. PSU	F	42.104	Private vs PSU
	Sig.	**.000**	
MNC vs Nationally-located	F	1.529	MNC vs Nationally-located
	Sig.	.219	
Ownership	F	2.900	
	Sig.	.060	
Industry Sector	F	2.395	Energy
	Sig.	**.022**	
Corporate Governance Practices	F	2.450	
	Sig.	.068	

Social Performance Score	F	4.837	
	Sig.	**.030**	High and Low

Table 6.23 helps to understand that whether there are any demographic wise differences in CEO duality. For age, the ANOVA (F value 2.680) is statistically significant at a 0.05 level of significance. Duncan Post-hoc test shows that companies under the age group 0-25 years have significantly different CEO duality patterns than companies that belong to 50-75 years age group.

Regarding the private vs PSU sector, the ANOVA results show significant results with F value of 42.104, indicating that PSU and private companies have a significantly different level of CEO duality patterns. For MNC vs nationally-located variable, results show a statistically significant ANOVA F value of 1.529, which indicates that MNC and national located companies will have different CEO duality patterns. The industry sector was also statistically significantly different with the F value of 2.395, which is significant at 0.022 level of significance. Duncan Post-hoc test result shows that the energy sector is showing significantly different results than the rest of the sectors.

The above analysis indicates that the *null hypothesis* H_{033}, that no significant difference in CEO duality pattern based on demographic characteristics, is partially supported. The results are significant for age, private vs PSU, MNC versus nationally-located and industry sector-wise classification. The null hypothesis H_{034}, that CEO duality is not significantly related to different corporate governance practices, is supported as the ANOVA F value is insignificant. The social performance score also indicates significant F values= 4.37, which implies that companies with high social performance scores have different CEO duality patterns compared to companies with low social performance

scores. Thus, the null hypothesis H_{035}, that there is no significant difference in CEO duality based on social performance score, is not supported.

Table 6.24 - ANOVA Results on CEO Duality wise Differences in Firm Performance

	F	Sig.
Board Size	7.242	**.008**
Independent Director	7.731	**.007**
Women Directors	6.410	**.013**
Number of Board Meetings	4.026	**.048**
Number of Members in Audit Committees	.152	.697
Number of Independent directors in Audit Committee	1.197	.277
Audit firm category	31.176	**.000**
Audit Concerns on Financial Statements	3.586	**.041**
Concerns of Secretarial Audit	14.160	**.000**
CSR Score category	4.837	**.030**
Disclosures and Transparency Score	11.484	**.001**
Responsibilities of the Board Score	4.955	**.028**
Total Debt ratio	8.162	**.005**
Earnings before interest and tax	4.772	**.031**
Dividend Yield ratio	11.912	**.001**
Stakeholder-related factor	9.025	**.003**

Table 6.24 shows ANOVA results on CEO duality wise differences in firm performance. For this analysis, sixteen financial performance variables, five financial factors extracted, corporate governance categories and corporate governance scores have been taken. It also includes all corporate governance characteristics. ANOVA tests have been performed for CEO duality. CEO duality is a dummy variable, and it studies two scenarios, i.e. whether the company have the same individual as Chairman and CEO or not.

The results indicate that the board size, ANOVA test (F=7.242) is statistically significant at 0.08 level of significance. Similarly, there is a significant difference for independent

directors in companies with CEO duality and without CEO duality as the ANOVA test (F value 7.731) is significant at a 0.07 level of significance. The percentage of women directors is also significantly different for the two groups, i.e., CEO duality and without CEO duality. The number of meetings of the board is also noted to be statistically related, with the F value of 4.026 and 0.048 level of significance. The audit firm category (big four audit firm and non-big four audit firm) has significant ANOVA values (31.176) at 0.000 level of significance, for CEO duality. Similarly, audit concerns on financial statements and concerns of the secretarial audit are also found to be statistically significantly different.

This indicates that the *null hypothesis*H_{037} that CEO duality does not impact corporate governance characteristics is not supported. As for almost all the characteristics like board size, independent directors, women directors, number of board meetings, audit firm categories and concerns of secretarial audit, the results are statistically significantly different.

Total debt ratio, dividend yield ratio, dividend yield ratio are also found to be statistically different for the two groups. Out of the five factors extracted, stakeholder-related factors are statistically significant with respect to CEO duality in the company. For CEO duality, the CSR score, disclosure and transparency scores, and board responsibility score are all statistically significant different.

The analysis indicates that the null hypothesis H_{038} that CEO duality does not impact financial performance variables has been rejected for most of the variables. CEO duality has a vital role in the firm's performance because it affects the corporate governance characteristics and practices followed by the company. It also affects the Earnings before

interest and tax, Dividend yield ratio and total debt ratio. It also impacts the stakeholder-related factors of the company and the amount the company will contribute towards the CSR activities. Thus, the CEO duality variable is significant and of high importance concerning the corporate governance practices, the operational efficiency and the stakeholder-related practices followed by the company.

6.3.6 Board Meetings and Firm Performance

The number of BoD meetings held each year is a key indicator of a company's performance. A corporation's number of board meetings demonstrates that all of the board's designated members are appropriately active in all levels of strategic decision-making. A company's ability to hold more meetings signals greater transparency and fairness. Literature also suggests a direct relationship between the number of board meetings and the firm performance. As per the Companies Act, 2013, at least once in three months board shall meet, and a minimum of four board meetings should be held during the year.

Table 6.25 - Demographic-wise Differences in Board Meetings

	ANOVA		Duncan's Post Hoc
Age	F	.260	
	Sig.	.854	
Private Vs. PSU	F	18.124	Private vs PSU
	Sig.	**.000**	
MNC vs Nationally-located	F	3.322	
	Sig.	.071	
Ownership	F	.674	
	Sig.	.512	
Industry Sector	F	5.265	Energy
	Sig.	**.000**	
Corporate Governance Practices	F	.438	
	Sig.	.727	

Social Performance Score	F	4.603	High and Low
	Sig.	**.034**	

Table 6.25 shows the demographic wise difference in board meetings. It explains the relationship between board meetings and demographic variables.

Age, MNC versus nationally-located and ownership wise there is no significant difference in the number of board meetings held by the company. The ANOVA (F values 18.124) for the private vs PSU sector is statistically significantly different at 0.000 level of significance. This indicates that PSU and private companies have different numbers of board meetings held during the year. Concerning the industry sector, again, the ANOVA F value (5.265) is significant. It indicates that the energy sector is different from the other sectors regarding the number of board meetings held in a year. Social performance score ANOVA F value is 4.603, which is significant at 0.034 level of significance, which indicates that companies number of board meetings differ for high social performance score companies and low social performance score companies.

The results are significantly different for PSU versus private companies, industry sector and social performance score. The *null hypothesis* H_{039} that there is no significant difference in board meetings of the companies based on demographic characteristics is partially supported. The *null hypothesis* $H_{040,}$ that board meeting is not significantly related to corporate governance practices, is supported, but the *null hypothesis* H_{041} that board meetings do not differ with social performance score is not supported.

6.3.7 Audit Committee and Firm Performance

Section 177 of the 2013 Act and SEBI (LODR) requires that "every listed entity shall constitute an Audit Committee". SEBI (LODR) mandates that every audit committee shall

have a minimum of three directors, with two-thirds of them being, including the chairman, independent. SEBI (LODR) also required that the appointed directors are financially literate and at least one member has accounting or related financial management expertise. The audit committee and the number of members in the audit committee and independent directors play an important role in implementing corporate governance norms. The audit committee should function independently, so it is recommended to have more independent directors. The audit committee should have more participation of members from the board of directors as it impacts strategic decision-making. Even the number of meetings held by the audit committee is significant and is directly related with firm's performance since it reflects how well the company manages its financial statements and whether the financial statements present a "true and fair view" of the company.

Table 6.26 - Demographic-wise Differences in Audit Committee Members

	Audit Committee Size			**Independent Directors in Audit Committee**	
	ANOVA		**Duncan's Post Hoc**	**ANOVA**	
Age	F	1.050		F	1.576
	Sig.	.374		Sig.	.200
Private Vs. PSU	F	4.096		F	.074
	Sig.	**.046**	Private vs PSU	Sig.	.786
MNC vs Nationally-located	F	2.257		F	.041
	Sig.	.136		Sig.	.839
Ownership	F	1.821		F	2.449
	Sig.	.167		Sig.	.092
Industry Sector	F	.807		F	1.149
	Sig.	.598		Sig.	.339
Corporate Governance Practices	F	1.573		F	1.854
	Sig.	.201		Sig.	.143
Social Performance Score	F	1.863		F	.467
	Sig.	.175		Sig.	.496

Table 6.26 shows demographic wise differences in the audit committee members and the number of independent directors in the audit committee. The number of members in the

audit committee is statically significantly different for the private sector vs PSU with an ANOVA F value of 4.096, which is significant at a 0.05 level of significance. Concerning age, MNC vs Nationally-located, ownership and industry sector, the results are found to be insignificant. This indicates that PSU has a different style of managing their audit committee in terms of number of members in their audit committee compared to private sector companies. The number of independent directors in the audit committee was not found to be significantly related to any of the demographic variables, including age, private vs PSU, MNC vs Nationally-located, ownership, industry sector, corporate governance practices and social performance score. The *null hypothesis* H_{043} that there is no significant difference in the audit committee members of companies based on demographic characteristics is partially supported for private vs PSU. The *null hypothesis* H_{044} that audit committee members is not significantly related to different corporate governance practices is supported, and the *null hypothesis* $H_{045,}$ which shows that audit committee members do not differ with social performance score, is also supported, as social performance score-wise no statistically significant difference is found in the number of audit committee members. This indicates that the audit committee members are not influenced by the demographic factors related to the company, and they are not related to the corporate governance practices and social performance practices. But as a variable, its role is vital to achieving corporate governance practices followed by the company.

6.3.8 Transparency of Financial Statements and Firm Performance

This subsection discusses the transparency of financial statements and their relationship with firm performance. It has three components: the first one is the audit firm category, whether the audit company is a big four firm (KPMG, Deloitte, EY and PWC) or not.

Audit firm category is a dummy variable; second is audit concerns on the financial statement, whether there is a concern in the financial statements submitted by the auditor in its report, audit concerns on the financial statement is again a dummy variable and lastly concerns of secretarial audit, which the company secretary conducts for ensuring that the company follows the corporate governance practices. The concern of secretarial audit is also a dummy variable.

Audit firm category, audit concerns on financial statement and concerns of secretarial audit reflect the fairness and transparent behaviour of auditors for disclosures about the financial statements. They also help to identify whether the corporate governance norms have been fulfilled or not and whether the company's financial statements are showing a true and fair picture of the company.

One of the critical roles of the Audit Committee is to appoint the Company's external auditors. Companies Act, 2013 requires that every company is required to get its account audited. The external auditors are responsible for preparing an audit report, based on the company's financial statements, and comment on whether the financial statements provide a “true and fair view” of the company. These statements are relied upon by every single stakeholder of the Company for all the major decisions. The investor relies on these statements for their investment decision, the financial institutions and suppliers rely on them to judge the company's creditworthiness, and even the regulatory and other government authorities rely on these audited statements to understand the company’s compliance with the applicable legal and regulatory framework. Therefore, it is of utmost importance that the external auditors are independent and audit the company's financial statements with due diligence while ensuring compliance with the standards of auditing

issued by the ICAI and accounting standards that are applicable on the Company. The Companies Act, 2013 and SEBI (LODR) have also stipulated that no listed company or other company as prescribed shall appoint or re-appoint an individual as auditor for more than one term of five years, or an audit firm as auditor for more than two terms of five years, to ensure that the appointed statutory auditors are independent.

Table 6.27- Demographic-wise Differences in Transparency of Financial Statements

		Audit Firm Category		**Audit Concerns on Financial Statements**		**Concerns of Secretarial Audit**	
		ANOVA	**Duncan's Post Hoc**	**ANOVA**	**Duncan's Post Hoc**	**ANOVA**	**Duncan's Post Hoc**
Age	F	1.070		1.570		.861	
	Sig.	.366		.202		.464	
Private Vs. PSU	F	104.483	Private vs PSU	12.551	Private vs PSU	37.128	Private vs PSU
	Sig.	**.000**		**.001**		**.000**	
MNC vs Nationally-located	F	1.369		.288		1.213	
	Sig.	.245		.593		.273	
Ownership	F	1.690		.041		1.564	
	Sig.	.190		.960		.215	
Industry Sector	F	4.087	Energy	2.062	Healthcare, materials, utilities and Telecom	4.069	Energy
	Sig.	**.000**		**.048**		**.000**	
Corporate Governance Practices	F	.491		.774		.407	
	Sig.	.690		.511		.748	
Social Performance Score	F	.038		.343		.603	
	Sig.	.846		.559		.439	

Table 6.27 analyses audit firm category, audit concerns on financial statement and concerns of secretarial audit and its relationship with firm performance.

The result shows that, for the audit firm category, private vs PSU companies have a statistical significance value of 104.483.This indicates that that private company and PSU are different in choosing the audit firm, so have different audit firms for external audit. Similarly, for industry-wise classification, it is found that the energy sector F value 4.08 is

statically significantly different from all the other sectors. It indicates that the energy sector is significantly different in choosing the external auditor, i.e., big four audit firms (KPMG, Deloitte, EY and PWC) and non-big four. Thus, the *null hypothesisH_{047}*, that there is no significant difference in the audit firm category of companies based on demographic characteristics, is partially supported for private vs PSU and industry sector-wise classification. However, the audit firm category is not significantly different based on corporate governance practices. So the *null hypothesisH_{048}* is supported, and the *null hypothesisH_{049}* for social performance score is also supported as ANOVA F value is insignificant for social performance score.

Similarly, results also show that for audit concern on financial statement and concerns of Secretarial Audit, results are significant for private versus PSU companies and Industrial sector only.

Table 6.28 - ANOVA Results on Audit Firm Category-wise Differences in Firm Performance

	F	Sig.
Board Size	2.219	.140
Independent Director	7.171	**.009**
Women Directors	14.903	**.000**
Number of Board Meetings	9.241	**.003**
Number of Members in Audit Committees	1.863	.175
Number of IDs in Audit Committees	1.137	.289
CEO Duality	31.176	**.000**
Audit Concerns on Financial Statements	4.086	**.046**
Concerns of Secretarial Audit	15.005	**.000**
CSR Score category	.038	.846
Disclosures and Transparency Score	3.614	**.050**
Market Capitalisation	3.328	**.071**
P/E ratio	8.536	**.004**
P/B ratio	3.846	**.043**
Dividend yield ratio	10.715	**.001**
Replacement factor	6.289	**.014**
Stakeholder-related factor	7.063	**.009**
Corporate Governance Total Score	0.382	0.538

Table 6.28 show the audit firm category wise differences in firm performance. This analysis is done for the other corporate governance characteristics, sixteen financial performance variables, corporate governance score and the financial factors extracted using factor analysis.

The results indicate that independent directors are significantly different in the two groups of audit firms, i.e., big four or non-big four company. For women directors firms, companies that have an external audit by the big four and non-big four are also statistically significantly different with an F value of 14.903, which is significant at a 0.05 level of significance. Similarly, the numbers of board meetings held in a year are different for an external audit firm. CEO duality is found to be statistically different. Audit concerns on financial statements and secretarial auditors' concerns were also statistically significantly different for companies that get the external audit done from a big four company or non-big four audit firm. This indicates that *null hypothesis*H_{051}, that audit firm category does not impact corporate governance characteristics, stands partially supported for independent directors, gender diversity, number of board meetings, CEO duality, concerns on financial statements and concerns of the secretarial auditor. Disclosure and transparency scores are also statistically significantly different for an external audit done by a big four or a non-big four audit firm.

From the sixteen financial variables, it is seen that the F value is significantly different for market capitalization. Price to earnings ratio, price to book ratio, dividend yield ratio is found to be statistically significantly different for external audit. The *null hypothesis*H_{052} that the audit firm category does not impact the financial performance variables is partially supported. For financial factors extracted using factor analysis, the replacement and

stakeholder-related factors are statistically significantly different for companies getting external audits done by a big four or non-big four firms.

So choosing an audit firm that is big four or a non-big four firm is a decision that impacts the shareholder's perception about the company and the transparency of its disclosures in the financial statements.

Results also show that audit concerns on financial statements and concerns of the secretarial audit are statistically significantly different for PSU vs private companies as well as for industry sector-wise classification. So, the *null hypothesis* H_{053}, that there is no significant difference in transparency in financial statements of companies based on demographic characteristics, is partially supported for public vs private sector and industry sector-wise classification.

The *null hypothesis* H_{054},thattransparency in disclosure of financial statements is not significantly related to different corporate governance practices,stand supported, and *null hypothesis* H_{055} that transparency in disclosure of financial statements is not significantly related to social performance score,is also supported. Indicating that transparency in disclosure will not impact companies' governance practices and social performance score, but it will affect the stakeholder's perception.

Table 6.29 - ANOVA Results on Audit Concerns in Financial Statements wise Differences in Firm Performance

	F	Sig.
Board Size	2.578	.112
Independent Director	5.722	**.019**
Women Directors	.028	.867
Number of Board Meetings	3.325	**.041**
Number of Members in Audit Committees	2.135	.147
Number of IDs in Audit Committee	.026	.872
External Auditor- Big four or not	4.086	**.046**

CEO Duality	3.586	**.041**
Concerns of Secretarial Audit	7.511	**.007**
CSR Score category	.343	.559
Disclosures and Transparency Score	11.484	**.001**
Responsibilities of the Board Score	4.955	**.028**
Price by book ratio	3.205	**.046**
Total Debt ratio	10.517	**.002**
Stakeholder-related factor	4.083	**.046**
Corporate Governance Total Score	.308	.580

Table 6.29 shows ANOVA results of audit concerns in financial statement wise differences in firm performance. Audit concerns reflect that there is some concern in the financial statement.

It is found that independent directors, number of board meetings held in a year, external audit firm, i.e. big four firm or non-big four; CEO duality and concerns of the secretarial audit are statistically significant different audit concerns in financial statements given by companies. So the *null hypothesis* H_{057a}that transparency in disclosure of financial statements does not impact corporate governance characteristics is partially supported.

For financial variables, it is found that the corporate governance categories like disclosure and transparency scores, board responsibility score is significantly different. Price to book ratio, total debt ratio, and stakeholder-related factors are statistically significantly different for audit concerns in financial statements given by companies. Thus, the *null hypothesis* H_{058a}, that the transparency in disclosure score of financial statement does not impact financial performance variables, is partially supported.

So if the auditor has shown some concern in the financial statement and has mentioned it in the audit report, it will also impact the stakeholder-related factor and the impact the company's book value.

Table 6.30 - ANOVA Results on Secretarial Concerns in Financial Statements wise Differences in Firm Performance

	F	Sig.
Board Size	5.366	**.023**
Independent Director	9.017	**.003**
Women Directors	5.602	**.020**
Number of Board Meetings	21.554	**.000**
Number of Members in Audit Committees	.269	.605
Number of Independent Directors in Audit Committee	.270	.604
External Auditor- Big four or not	15.005	**.000**
CEO Duality	14.160	**.000**
Audit Concerns on Financial Statements	7.511	**.007**
CSR Score category	.603	.439
Role of Stakeholders Score	4.388	**.039**
Earnings before Interest and Tax	5.777	**.018**
Total Debt ratio	18.551	**.000**
Stakeholder-related factor	30.797	**.000**
Replacement factor	5.001	**.028**
Dividend Yield ratio	44.195	**.000**
CSR spend	9.073	**.003**
Corporate Governance Total Score	.176	.675

Table 6.30 shows ANOVA results on secretarial concerns in financial statement wise differences on firm performance.

The result shows that the two groups of companies, i.e., companies that have secretarial concerns in financial statements and companies which do not have secretarial concerns in financial statements is statistically significantly different for board size, independent directors, women directors, number of board meetings, external audit- big four or non-big four, CEO duality and audit concerns on the financial statement. So, the *null hypothesis* H_{057b}, that concerns of secretarial audit do not impact corporate governance characteristics, is not supported.

For corporate governance total score and the financial performance variables, the table shows that Role of Stakeholders score, CSR spending, Earnings before interest and tax, total debt ratio, stakeholder-related factor, dividend yield ratio, and replacement factor

have significantly different results for those companies which have secretarial concerns in financial statements and those companies which do not have secretarial concerns in financial statements. So, the company's financial performance, the replacement value, stakeholder-related factors, debt levels, earnings before interest and tax are influenced by the level of corporate governance practices the transparency in financial statements. Thus, the *null hypothesis* H_{058b},that concerns of secretarial audit do not impact financial performance variables, is partially supported.

6.3.9 Regression Analysis of Impact of Corporate Governance Variables on Firm Performance

The main corporate governance variables which have been chosen for this study discussed above have been used for conducting a multiple regression analysis to analyse their impact on firm financial performance. The firm performance or the financial performance has been taken as the dependent variable which is measured through the Return on Assets of a company. Apart from the main corporate governance characteristics, the financial variables have also been taken, and a backward method of elimination of variables in multiple regressions has been used.

Table 6.31- Multiple-Regression Model of Impact of Corporate Governance Variables on Firm Performance

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.011	.040		.277	.783
Independent Director	-.005	.004	-.105	-1.123	.265
Women Directors	.002	.001	.178	2.107	**.038**
Number of Board Meetings	.006	.002	.288	3.239	**.002**
CEO Duality	-.025	.016	-.129	-1.577	.119
Number of Members in Audit	.010	.006	.129	1.619	.110

Committees (ACs)					
Market Capitalization	5.404E-08	.000	.870	3.408	**.001**
Tobin's Q	.011	.002	.620	6.932	**.000**
Price to Earnings ratio	-.001	.000	-.403	-4.693	**.000**
Enterprise Value	-5.192E-08	.000	-.927	-3.644	**.000**
Dependent Variable: Return on Assets					
Explanation of the model:			**Significance of the model:**		
R Square	.567		**F**	11.224	
Adjusted R Square (R^2)	.517		**Sig.**	.000[i]	

The results indicate that independent directors, women directors, board meetings, same CEO and Chairman, number of members in the ACs, market capitalisation, Tobin's Q, Price-earnings ratio and Enterprise value are significant variables that finally loaded into the model. The model has an explanatory power of adjusted R square of 51.7 percent, and the model is the best fit model with an F value of 11.224, which is significant at a 0.05 percent level of significance. So, this indicates that nine variables significantly loaded or explain 51 percent of the firm performance by the company.

Out of these variables, women directors are statistically significant and positively related to the firm performance, indicating that more women directors will improve the Return on assets or improve the financial performance of companies. Similarly, the number of board meetings held in a company is again positively related with the coefficient value of 0.006, which indicates that if the number of board meetings is high, that will improve the firm performance quality. CEO duality is found to be inversely related with the beta coefficient of -0.025, which shows that if a company does not have a dual role vested with the CEO, then the financial performance of the company will improve, but this variable is having low significance (11 percent level of significance). The number of members in the audit committee is also positively related to the firm performance, but the significance level was

low at 11 percent. Market capitalisation is a highly significant variable that is positively related to firm performance.

Similarly, Tobin's Q is a highly significant variable that is positively related to firm performance. The Price-earnings ratio is negatively loading in the model, and the Enterprise value is also negatively loading in the market but are also significant. Independent directors are found to be negatively loading in the model, but the level of significance is very low, at 26 percent, which indicates that it is inversely related to the firm performance. This reveals that more independent directors may inversely impact the Return on assets of the company. This model indicates that the *null hypothesisH*$_{028,}$ *null hypothesisH*$_{032,}$ *null hypothesisH*$_{036,}$ *null hypothesisH*$_{042}$, and *null hypothesisH*$_{046}$are not supported. The *null hypothesisH*$_{059}$ is partially supported. This implies that board independence, gender diversity, board meetings, CEO duality, number of members in audit committee, market capitalisation, Tobin's Q, price-earnings ratio, and Enterprise value are very important variables that influence the firm performance of companies.

Overall, it can be concluded that out of all the variables, audit committee, CEO duality, gender diversity, board independence, and board size impact firm performance. These corporate governance characteristics have impact on improving the financial performance of companies along with social performance.

6.4 Conclusion

This chapter analyses the impact of corporate governance practices on the financial performance and social performance of companies. Correlation analysis, multiple regression analysis, exploratory factor analysis, ANOVA has been used to analyse the

data. It is seen that many variables are highly correlated with each other and makes data suitable for further research. The summary of results is presented below in Table 6.32.

Table 6.32 - Summary of Results of Hypotheses Tested

Hypotheses	Hypotheses supported/not supported	Significant variables
H_{010}: There is no significant impact of corporate governance on the financial performance of companies.	not supported	corporate governance total score
H_{011}: There is no significant impact of other firm characteristics on the financial performance of companies.	partially supported	Ownership, industry sector, Beta, enterprise value, price to earnings ratio, Total debt ratio, Return on equity, ratio, CSR spend, Tobin's Q
H_{012}: There is no significant impact social performance score on the financial performance of companies.	supported	
H_{013}: There is no significant difference in financial performance variables and corporate governance practices followed by companies	partially supported	Return on equity, Earnings before interest and tax, Enterprise value and Market capitalisation
H_{014}: Change in the five-year financial performance of companies is not impacted by corporate governance score.	not supported	corporate governance total score
H_{015}: Change in the five-year financial performance of companies is not impacted by other firm characteristics.	partially supported	Ownership, industry sector, Closing price, enterprise value, Earnings per share, Dividend yield ratio, Return on equity ratio, Tobin's Q
H_{016}: Change in the five-year financial performance of companies is not impacted by the social performance of companies.	supported	
H_{017}: There is no significant difference in the five financial factors extracted and corporate governance practices followed by companies.	partially supported	Valuation-related factor
H_{018}: There is no significant difference between the five financial factors extracted and the social performance score of companies.	partially supported	Stakeholder-related factor
H_{019}: There is no significant difference in social performance score and corporate governance practices of companies	supported	
H_{020}: There is no significant difference in financial performance variables and social performance scores of companies	partially supported	Beta, return on equity, return on sales ratio, dividend yield, CSR spend
H_{021}: There is no significant difference in Board size of companies based on demographic characteristics.	partially supported	Private vs PSU, industry sector
H_{022}: Board size is not significantly related to different corporate governance practices.	supported	
H_{023}: Board size does not differ with social performance scores.	not supported	social performance score
H_{024}: Board size does not impact firm performance.	supported	

H_{025}: There is no significant difference in board independence of companies based on demographic characteristics.	partially supported	Private vs PSU, MNC vs Nationally-located, industry sector
H_{026}: Board independence is not significantly related to different corporate governance practices.	not supported	corporate governance practices
H_{027}: Board independence does not differ with social performance scores.	supported	
H_{028}: Board independence does not impact firm performance.	not supported	Return on Assets
H_{029}: There is no significant difference in the gender diversity of companies based on demographic characteristics.	partially supported	Private vs PSU, industry sector
H_{030}: Gender diversity is not significantly related to different corporate governance practices.	supported	
H_{031}: Gender diversity in board does not differ with social performance scores.	supported	
H_{032}: Gender diversity in board does not impact firm performance.	not supported	Return on Assets
H_{033}: There is no significant difference in CEO duality of companies based on demographic characteristics.	partially supported	Age, Private vs PSU, MNC vs Nationally-located, industry sector
H_{034}: CEO duality is not significantly related to different corporate governance practices.	supported	
H_{035}: CEO duality does not differ with social performance scores.	not supported	social performance score
H_{036}: CEO duality does not impact firm performance.	not supported	Return on Assets
H_{037}: CEO duality does not impact corporate governance characteristics	not supported	board size, board independence, gender diversity, board meeting, audit firm category, audit concerns in financial statements, concerns of secretarial audit, disclosure and transparency score, the responsibility of board score
H_{038}: CEO duality does not impact financial performance variables	partially supported	total debt ratio, Earnings before interest and tax, dividend yield ratio, stakeholders related factor
H_{039}: There is no significant difference in board meetings of companies based on demographic characteristics.	partially supported	Private vs PSU, industry sector
H_{040}: Board meetings is not significantly related to different corporate governance practices.	supported	
H_{041}: Board meetings does not differ with social performance scores.	not supported	social performance score
H_{042}: Board meetings does not impact firm performance.	not supported	Return on Assets
H_{043}:There is no significant difference in audit committee members of companies based on demographic characteristics.	partially supported	Private vs PSU
H_{044}: Audit committee members is not significantly related to different corporate governance practices.	supported	
H_{045}: Audit committee members does not differ with social performance scores.	supported	
H_{046}: Audit committee members does not impact firm	not supported	Return on Assets

performance.		
H_{047}: There is no significant difference in audit firm category of companies based on demographic characteristics.	partially supported	Private vs PSU, industry sector
H_{048}: Audit firm category is not significantly related to different corporate governance practices.	supported	
H_{049}: Audit firm category does not differ from social performance scores.	supported	
H_{050}: Audit firm category does not impact firm performance.	supported	
H_{051}: Audit firm category does not impact corporate governance characteristics	not supported	board independence, gender diversity, board meeting, CEO duality, audit concerns in financial statements, concerns of secretarial audit, disclosure and transparency score
H_{052}: Audit firm category does not impact financial performance variables	partially supported	Market capitalisation, Price to earnings ratio, dividend yield ratio, price to book ratio, replacement factor, stakeholder-related factor
H_{053}: There is no significant difference in transparency in the financial statements of companies based on demographic characteristics.	partially supported	Private vs PSU, industry sector
H_{054}: Transparency in the disclosure of financial statements is not significantly related to different corporate governance practices.	supported	
H_{055}: Transparency in disclosure of financial statements does not differ with social performance scores.	supported	
H_{056}: Transparency in disclosure of financial statements does not impact firm performance.	supported	
H_{057a}: Audit concerns on financial statements does not impact corporate governance characteristics	not supported	board independence, board meeting, audit firm category, CEO duality, audit concerns in financial statements, concerns of secretarial audit, disclosure and transparency score, the responsibility of board score
H_{057b}: Concerns of secretarial audit does not impact corporate governance characteristics	not supported	board size, board independence, gender diversity, board meeting, audit firm category, audit concerns in financial statements, CEO duality, the role of stakeholder score
H_{058a}: Audit concerns on financial statements do not impact financial performance variables	partially supported	Total debt ratio, price to book ratio, stakeholder-related factor
H_{058b}: Concerns of secretarial audit does not impact financial performance variables	partially supported	Total debt ratio, Earnings before interest and tax, dividend yield ratio, CSR spend, replacement factor, stakeholder-related factor
H_{059}: There is no significant impact of financial variables on the firm performance of companies.	partially supported	Market capitalisation, Price to earnings ratio, Tobin's Q and Enterprise value

Multiple regression analysis of financial data of 2019 shows that corporate governance score, industry sector, enterprise value, Price to earnings ratio, CSR spend and return on

equity have a positive relationship with the market capitalization (financial performance). Ownership, Tobin's Q, Beta and Total debt ratio are inversely loaded on the model. So, market capitalization is influenced by corporate governance score, Price to earnings ratio, CSR spend, industry sector, Enterprise value and Return on equity. The degree of explanation of the model is very high as the adjusted R^2 is 92.3 percent. This also tells us about the robustness of the model, as it tries to explain the maximum variables. Thus, $H_{010}$is not supported,$H_{011}$is partially supported, and $H_{012}$is supported (Table 6.16).

Companies' level of corporate governance practices significantly influences some of the financial variables like Return on Equity ratio, Enterprise value, Earnings before Interest and Tax (EBIT) and Market capitalization. This indicates that if companies start performing better in their corporate governance practices, they will do well in these ratios, which are very important financial performance indicators. The null hypothesisH_{013}that there is no significant difference in financial performance variables and corporate governance practices followed by companies is partially supported as the values are significant for Return on Equity ratio, Enterprise value, Earnings before interest and tax (EBIT) and Market capitalization.

Multiple regression analysis of CAGR values of financial performance variables shows that the model is having an explanation power of 40.5 percent, and it reconfirms the previous model. Changes in market capitalization over five years depending upon the company's dividend yield, Return on equity, Tobin's Q, Earnings per share, Corporate governance total score, Closing price, Enterprise value, ownership, and ownership Industry sector. Thus *null hypothesis* (H_{015}) that other firm characteristics do not impact

change in five-year financial performance of companies is partially supported. *The null hypothesis (H_{016})* that the social performance of companies does not affect change in the five-year financial performance of companies is supported as the model eliminated social performance. Thus, H_{014} is not supported,H_{015} is partially supported, and H_{016} is supported.

It can be concluded from the above analysis that the current year performance of the company is dependent on the variables discussed in Table 6.2. However, these variables are also relevant and impact changes in the financial performance of companies over five years. Variables that have held their place in the regression model explained in Tables 6.2, and 6.8 indicate that these variables are significant and impact the company's financial performance. These variables are of strategic importance and should be studied and analyzed while taking any decisions related to how to improve the financial performance of companies as they can have a great impact on the strategic decision making by the company. Thus, ownership, industry sector, enterprise value, Return on equity ratio, Tobin's Q, and corporate governance total score have emerged as important variables that impact a company's market cap both in the short (annual) and the long term (five years).

The exploratory factor analysis (EFA) summarized 16 financial performance variables into five factors: Return on assets ratio; valuation-related factor; long-term market growth factor; replacement value factor, and stakeholder-related factor.

It is found that companies' leadership practices and basic practices significantly differ for valuation-related factors. So, the null hypothesis H_{017}, that there is no significant difference in five financial factors extracted and corporate governance practices followed by companies, is partially supported only for valuation-related factors.

The overall analysis reveals that the social performance score of companies impacts the stakeholder-related factor. Social performance is not significantly associated with the corporate governance practices of companies. Social performance may impact Beta, Return on equity, Return on sales ratio, Dividend yield ratio, and CSR spend ratio.

It is found that corporate governance only impacts the valuation-related factors of a company. Implying corporate governance is directly related to investors' sentiments, which ultimately reflects in the company's valuation. Market capitalization and enterprise value that form part of this group are simply byproducts of the share price and the number of shares outstanding in the capital market. The total debt is also a component used for the calculation of enterprise value, which is the valuation of the company after taking the impact of total borrowings, cash and equivalent that the company holds, i.e. the price that the investor will have to pay to acquire the 100 percent stake in a company.

Earnings before interest and tax are among the most widely used multiples that investment bankers see in merger and acquisition deals. Therefore, it is concluded that corporate governance does not impact the operating efficiency of the firm. However, it does impact the valuation of the firm, performance of the firm in the capital market, which decides the company's total debt or equity raising power. It can also be inferred that, theoretically, corporate governance should impact the firm's operational efficiency that the company is only complying with the law in letter and not in the spirit. However, investors and other stakeholders are giving importance to good corporate governance practices and reflect them in the company's valuation.

The analysis of corporate governance characteristics shows that the mean value of board size is 11.50. The mean of independent directors in a company is 4.96, the average percentage of women directors in a company is 16 percent, and 7 is the number of board meetings and which board meetings are held in a company. The number of board members in the audit committee mean is 4.33, and the number of independent directors in the audit committee is 1.24.

The public sector companies have performed relatively better for board size, independent directors, number of board meetings held in a year and number of members in the audit committee compared to private sector companies.

The corporate governance characteristics concerning industrial sector classification show that the energy sector has a higher level of corporate governance characteristics in terms of board size, the number of independent directors, number of board meetings held in a year. Information technology has the highest average percentage of women directors. The number of members in the audit committee are highest in the consumer staples sector, and independent members in the audit committee is highest for industrial.

Further, board size is positively correlated with the number of independent directors, and IDs are positively correlated with the frequency of meetings of the BoD, held in a year, and the number of IDs in the audit committee. CEO duality is positively related to the audit firm categories. Board meetings are again positively correlated with the concerns of the secretarial audit and the number of independent members in the audit committee

The Board size is different for private sector vs PSU companies and industrial sector-wise classification only. The *null hypothesis*H_{021} that there is no significant difference in the

board size of companies based on demographic characteristics is partially supported. The board size of companies is influenced by public vs private sector companies and the industry sector to which it belongs. The *null hypothesis* $H_{022}$is supported, that there is no significant difference in the board size based on different corporate governance practices followed by the companies. The *null hypothesis* H_{023} that the board size does not differ with social performance score is not supported as companies with high social performance, and low social performance have different board sizes. The *null hypothesis* H_{023} that board size does not impact firm performance is also supported.

Board independence, which is related to the number of independent directors on the board, is significantly different for private vs PSU, MNC vs Nationally-located and based on industry sector classification. Companies that follow leadership, good or fair practices have differences in the number of independent directors on board. The *null hypothesis* H_{028} indicates that board independence significantly impacts firm performance.

Gender diversity which is indicated by the percentage of women directors on the board differs significantly with private vs PSU companies and the industry sector classification. Gender diversity also considerably influences firm performance, so *null hypothesis*H_{032} is not supported.

CEO Duality is significantly different for age, private vs PSU, MNC versus nationally-located and industry sector wise classification. It is also significantly influenced by high and low social performance levels of companies. CEO duality also significantly influence firm performance so *null hypothesis*H_{036} is not supported.

CEO duality has a vital role in the firm's performance because it affects the corporate governance characteristics and practices followed by the company. It also affects the Earnings before interest and tax, Dividend yield ratio and total debt ratio. It also impacts the stakeholder-related factors of the company and the amount the company will contribute towards the CSR activities. Thus, the CEO duality variable is significant and of high importance for the corporate governance practices, the operational efficiency and the stakeholder-related practices followed by the company. Board meetings also significantly influence firm performance, so *null hypothesis*H_{042} is not supported.

The audit committee is found to be significantly different for Private vs PSU companies. This indicates that PSU has a different style of managing their audit committee in terms of number of members in their audit committee compared to private sector companies. The number of independent directors in the audit committee was not significantly related to any demographic variables including age, private vs PSU, MNC vs. Nationally-located, ownership, industry sector, corporate governance practices, and social performance score.

This indicates that the audit committee members are not influenced by the demographic factors related to the company, and they are not associated with the corporate governance practices and social performance practices. But as a variable, its role is crucial to achieve corporate governance practices followed by the company. Results show that audit firm category, audit concern on financial statement and concerns of ssecretarial audit, are significant for private versus PSU companies and iindustrial sector.

This indicates that *null hypothesis*H_{051}, that audit firm category does not impact corporate governance characteristics, stands partially supported for independent directors, gender

diversity, number of board meetings, CEO duality, concerns on financial statements and concerns of the secretarial auditor. Disclosure and transparency scores are also statistically significantly different for an external audit done by a big four or a non-big four audit firm.

The *null hypothesis*H_{052} that the audit firm category does not impact the financial performance variables is partially supported. For financial factors extracted using factor analysis, the replacement and stakeholder-related factors are statistically significantly different for companies getting external audits done by a big four or non-big four firms.

So choosing an audit firm that is big four or a non-big four firm is a decision that impacts the shareholder's perception about the company, transparency of its disclosures in the financial statements. Indicating that transparency in disclosure will not impact companies' governance practices and social performance score, but it will impact the stakeholder's perception.

It is found that independent directors, number of board meetings held in a year, external audit firm, i.e. big four firm or non-big four; CEO duality and concerns of the secretarial audit are statistically significant different audit concerns in financial statements given by companies.

For financial variables, it is found that the corporate governance categories like disclosure and transparency scores, the responsibility of the board score is significantly different. Price to book ratio, total debt ratio and stakeholder-related factors are statistically significantly different for audit concerns in financial statements given by companies. So if the auditor has shown some concern in the financial statement and has mentioned it in the

audit report, it will also impact the stakeholder-related factor and the impact the company's book value.

The result shows that the two groups of companies, i.e., companies that have secretarial concerns in financial statements and companies which do not have secretarial concerns in financial statements is statistically significantly different for board size, independent directors, women directors, number of board meetings, external audit- big four or non-big four, CEO duality and audit concerns on the financial statement. So, the *null hypothesis* H_{057b}, that concerns of secretarial audit do not impact corporate governance characteristics, is not supported.

The regression model indicates that the *null hypothesis*H_{028}, *null hypothesis*H_{032}, *null hypothesis*H_{036}, *null hypothesis*H_{042}, and *null hypothesis*H_{046} are not supported. The *null hypothesis*H_{059} is partially supported. This implies that board independence, gender diversity, board meetings, CEO duality, number of members in audit committee, market capitalisation, Tobin's Q, price-earnings ratio, and Enterprise value are very important variables that influence the firm performance measured by Return on Assets of companies.

Overall, it can be concluded that out of all the variables, audit committee, CEO duality, gender diversity, board independence, and board size impact firm performance. These corporate governance characteristics have an impact on improving the financial performance of companies along with social performance.