

## A Study of Impact on Financial Performance of Top listed Indian Companies with Reference to Emission of Carbon and Harmful Gases related CSR Disclosure Practices

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### Abstract:

*Corporate Social Responsibility (CSR) as a notion has been the focal point of various considerations and much research over the past few years; and has occupied a significant role in the academic and business area. Evolving all the time, it has deformed from a purely charitable to a structural and finally tactical activity. For an organization to be victorious, creating earnings is the main aim but at the same time it conveys the consciousness of being socially responsible. India is the first country to have legislated CSR mandates. It is very probable that the new legislation will be a game-changer, inspiring new investments, judicious attempts and responsibility in the way CSR is being formed and survived in India. CSR Disclosures are basically categorized into Mandatory and Voluntary practices of disclosure. Firm's performance and reputation are linked with Voluntary disclosure patterns. Various categories like Environment, Human resource, Community involvement, Energy etc. affect CSR Disclosure which in turn affects the financial performance of the firm which is relevant for the stakeholders of the firm. This paper makes a humble attempt to study the various corporate characteristics like size and age of the company, sectorial influence and ownership concentration on emission of carbon and harmful gases. It also attempts to study the CSR disclosure score of the company, which in turn affects the financial performance of the company measured by ROA, ROE and Tobins Q of the Company.*

**Keywords:** *Corporate Social Responsibility (CSR), Corporate Social Responsibility Disclosure (CSR D), Emission of Carbon and Harmful Gases (ECHG), Return on Assets (ROA), Return on Equity (ROE).*

### Introduction:

Corporate Social Responsibility (CSR) is a growing and important part of an organization's overall strategy. The voluntary compliance of social and ecological responsibility of companies is called Corporate Social Responsibility. It is basically a concept whereby companies decide voluntarily to contribute to a better society and a cleaner environment. It is a concept whereby companies integrate social and environmental concerns into their business operations and their interaction with their stakeholders on a voluntary basis. It is represented by contributions undertaken by companies to society through its business activities and social investment.<sup>3</sup>

CSR is also linked with the principal of sustainability, which argues that enterprises should make decisions based not only on financial factors such as profits or dividends, but also based on the immediate and long term social and environmental consequences of their activities. CSR is the responsibility of an organization for the impact of its decisions and activities on society, the environment & its own prosperity known as the TRIPLE BOTTOM LINE of

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People, Planet and Profit. Triple bottom line concept (3P) explains that in order to sustain in the long run a corporation should pay attention to the following components: People relates to fair & beneficial business practices towards labor, the community and region where corporation conducts its business. Support from people (society) in business area is needed for corporate sustainability.<sup>4</sup>

The unique characteristic is the sets of guidelines for CSR reporting in India: CSR Voluntary Guidelines (2009 and 2010) issued by the Ministry of Corporate Affairs, the Guidelines on CSR for Central Public Sector Enterprises (2010, 2012) and now the Companies Act, 2013.<sup>5</sup> However, the fact is not all companies follow these guidelines due to poor monitoring and disclosure of CSR mechanisms in Indian Government Companies.

Lastly, India being a fastest growing economy has been a spectator to considerable corporate and economic growth in current years, particularly in the post-liberalization era. India is the first country in the world to mandate the spending of 2% of the average net profits of three years immediately preceding the reporting period.<sup>6</sup> In addition, the board of directors is required to disclose the contents of CSR policy in their reports. Given the uniqueness of Indian corporations, research into the degree of CSR – and the factors that drive companies to make high or low CSR – attracts a great deal of interest. For environmental sustainability it is very important to take steps for reduction in greenhouse gas emissions and preservation of biodiversity and natural resources. Disclosure in initiatives right from setting targets to efforts and modes in reducing carbon emission are evident in the annual reports of the company on corporate performance. To find out the impact, this study used a quantitative method using secondary data collection and analyzed data using smart partial least squares (PLS).<sup>7</sup> The population for this study is the global energy corporations which are the top 250 corporations in the world for a year period, 2016, 2017, and 2018. This study found out that the impact of corporate social responsibility disclosure on corporate performance is not significant, and board independence. Therefore, the board size and gender diversity have a significant impact on corporate performance.

Corporate social responsibility (CSR) is a buzzword worldwide. In today 's globalized world, one of the great challenges faced by firms is integration of CSR in business. Stakeholders require a lot more from companies than merely pursuing growth and profitability. CSR has come a long way in India and other emerging markets. From responsive activities to sustainable initiatives, corporates have clearly exhibited their ability to make a significant difference in the society and improve the overall quality of life. This paper focuses on the concept of CSR, its dimensions and relevance in emerging reference to India.<sup>8</sup>

The study has revealed that there are differences in the level of disclosure among different industry sectors in cases of Sri Lankan Companies and that the overall level of CSR disclosure is at a low level. It is imperative to modify governance, economic, social and

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<sup>4</sup> Gillis, Wendy and James, Matrecia, The Impact of the Triple Bottom Line on Social Entrepreneurship (September 10, 2015). 5th International Conference on Engaged Management Scholarship: Baltimore, Maryland, September 10-13, 2015, Available at SSRN: <https://ssrn.com/abstract=2676325> or <http://dx.doi.org/10.2139/ssrn.2676325> (last visited 3 April 2022).

<sup>5</sup> Act, C. (2013). The companies act, 2013. Retrieved on October, 30, 2013. [http://uploads.rbk.ie/1440664970-The\\_Companies\\_Act\\_2014.pdf](http://uploads.rbk.ie/1440664970-The_Companies_Act_2014.pdf) (last visited 7 April 2022).

<sup>6</sup> Act, C. (2013). The companies act, 2013. Retrieved on October, 30, 2013. [http://uploads.rbk.ie/1440664970-The\\_Companies\\_Act\\_2014.pdf](http://uploads.rbk.ie/1440664970-The_Companies_Act_2014.pdf) (last visited 3 April 2022).

<sup>7</sup> P., F. and K.B., N. (2021), "Determinants of CSR disclosure: an evidence from India", *JOURNAL OF INDIAN BUSINESS RESEARCH*, Vol. 13 No. 1, pp. 110-133. <https://doi.org/10.1108/JIBR-06-2018-0171>

<sup>8</sup> Saluja, R. and Kapoor, S. (2017), "Corporate Social Responsibility – Evolution", *IRJMSH*, Vol. 8 No. 11, pp. 158-167, file:///C:/Users/dell/Downloads/CorporateSocialResponsibilityPaper.pdf

environmental disclosures which are the major components of sustainability.<sup>9</sup>

There are major discrepancies between the disclosure patterns of developed and developing countries with reference to the characteristics of the enterprise as determinants like social, political and culture have a major impact on the disclosure agenda. Based on 76 research articles, various factors like company size, industry sector, profitability and corporate governance mechanisms primarily force the corporate reporting mechanism. Also, developed countries are more under pressure to disclose due to people at large.<sup>10</sup>

The study revealed that sector has a major influence on the extent of sustainability reporting. Also, the results revealed an intensive use of corporate governance indicators, a moderate disclosure of environmental key performance indicators (KPIs) and a low use of social indicators.<sup>11</sup>

A review of 178 articles is done and possible future research themes are discussed to clarify the gaps in the area of regulation and governance as well as reporting attribute and stakeholder opinion has undertaken an experimental study in India to understand the relationships between individual corporate characteristics and the types of social responsibility disclosures of public sector enterprises. The size of the Company being the most prominent characteristic, amongst four independent variables, 28% of the variation in the total number of disclosures is depicted by the results shown through regression analysis.<sup>12</sup>

An attempt is made to measure social performance by CSR disclosure score and profitability, which is measured by Return on Asset (ROA). By taking into consideration a sample of 25 Indonesia firms, the study concludes that there is a positive significant relationship between corporate social responsibility disclosure and profitability of firms.<sup>13</sup>

CSR Disclosures are basically categorized into Mandatory and Voluntary practices of disclosure. Firm's performance and reputation are linked with Voluntary disclosure patterns. Various categories like Environment, Human resource, Community involvement, Energy etc. affect CSR Disclosure which in turn affects the financial performance of the firm which is relevant for the stakeholders of the firm.<sup>14</sup>

To investigate the environmental factors that have the capacity to influence Corporate Governance Disclosure (CGD) at country level amongst a large sample of emerging markets. The level of disclosure is substantially higher for common law emerging countries than for civil law emerging countries. Whereas, capital market size tends to have a substantial effect

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<sup>9</sup> Wijesinghe, K. N. (2012), "Current Context of Disclosure of Corporate Social Responsibility in Sri Lanka", *PROCEDIA ECONOMICS AND FINANCE*, Vol. 2, pp. 171-178. [https://doi.org/10.1016/S2212-5671\(12\)00077-9](https://doi.org/10.1016/S2212-5671(12)00077-9).

<sup>10</sup> Waris A., Frynas, J.G. and Mahmood, Z. (2017), "Determinants of Corporate Social Responsibility (CSR) Disclosure in Developed and Developing Countries: A Literature Review", *CORPORATE SOCIAL RESPONSIBILITY AND ENVIRONMENTAL MANAGEMENT*, Vo. 24 No. 4, pp. 273-294. <https://doi.org/10.1002/csr.1410>

<sup>11</sup> Bonsón, Enrique & Bednarova, Michaela. (2014). *CSR reporting practices of Eurozone companies*. *Revista de Contabilidad*. 10.1016/j.rcsar.2014.06.002. 10.13140/RG.2.2.32303.18088

<sup>12</sup> Hahn, Rüdiger and Kühnen, Michael, *Determinants of Sustainability Reporting: A Review of Results, Trends, Theory, and Opportunities in an Expanding Field of Research (2013)*. *JOURNAL OF CLEANER PRODUCTION* (2013), Vol. 59, pp. 5-21 (doi: 10.1016/j.jclepro.2013.07.005), Available at SSRN: <https://ssrn.com/abstract=2290524>

<sup>13</sup> Wibowo, A. J. (2012, July). Interaction between corporate social responsibility disclosure and profitability of Indonesia firms. In *UMT 11th International Annual Symposium on Sustainability Science and Management* (pp. 373-380).

<sup>14</sup> Kavitha, W., & Anita, P. (2011). *Disclosures About CSR Practices: A Literature Review*. *IUP JOURNAL OF CORPORATE GOVERNANCE*, 10(1). <https://web.s.ebscohost.com/ehost/detail/detail?vid=0&sid=9622a1bb-52c2-4727-8d83-2e21d61be616%40redis&bdata=JnNpdGU9ZWwhvc3QtbGl2ZQ%3d%3d#AN=57489790&db=bsh> (last visited 3 April 2022).

on CGD in both common law and civil law emerging markets.<sup>15</sup>

### **Motivation of the Study**

The motivation for this study is the need to measure and understand the level of CSR Disclosure and its determinants before the application of the Corporate Social Responsibility Voluntary Guidelines issued by the Ministry of Corporate Affairs, India (2009), the Guidelines on Corporate Social Responsibility for Central Public Sector Enterprises (2010,2012) and the Companies Bill 2012, which has made CSR disclosures mandatory in India. The guidelines provide for resource allocation towards CSR projects in relation to their declared profits in a particular year and include regulations for the implementation, monitoring and reporting of social disclosures. They became law in 2013 after the Companies Bill 2012 passed through the upper house of India's parliament.

### **Problem Statement**

To understand the impact of different factors of Emission of Carbon and Harmful Gases Corporate Social Responsibility (CSR) Disclosure on the performance of the company.

### **Research Questions**

- a) How to study the various Emission of Carbon and Harmful Gases (ECHG), Corporate Social Responsibility Disclosure (CSR) practices adopted by companies in India?
- b) Which are the various characteristics of Companies to be studied with reference to ECHGCSR practices?
- c) What is the impact of Company's characteristics on ECHG CSR practices?
- d) What is the impact of ECHG CSR practices on the financial performance of the companies in India.

To help answer these questions, the researcher has selected this topic for the research with following research objectives:

### **Research Objectives**

The main objective of the research is to study the impact of ECHG CSR Disclosure practices on the financial performance of the Companies in India.

The Sub-objectives of the study are:

- a) To study ECHG CSR practices adopted by Companies in India.
- b) To study the characteristics of Companies with reference to ECHG CSR practices.
- c) To study the impact of Company's characteristics on ECHG CSR practices.

To fulfill these research objectives, this study will try to measure the impact of characteristics of Company on ECHG CSR disclosure practices and then to check the impact of ECHG CSR disclosure practices on the financial performance of the Company.

### **Study Hypothesis**

Based on the above-mentioned objectives, following hypothesis were developed:  
(CSR practices are measured through CSR score)

**H<sub>0</sub>(1):** There isn't any significant impact of Age of the company on ECHG CSR disclosure score of the company.

**H<sub>0</sub>(2):** There isn't any significant impact of size of the company on ECHG CSR disclosure

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<sup>15</sup> Akrouf, M. M., & Othman, H. B. (2013). *A study of the determinants of corporate environmental disclosure in MENA emerging markets*. JOURNAL OF REVIEWS ON GLOBAL ECONOMICS, 2, 46. <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=6a926ab180589c4b432b71ddc3bc0e3cad6afad3>

score of the company.

**H<sub>0</sub>(3):** There isn't any significant impact of Promoter's Holding of the company on ECHG CSR disclosure score of the company.

**H<sub>0</sub>(4):** There isn't any significant impact of ECHG CSR disclosure score on RONW of the company.

**H<sub>0</sub>(5):** There isn't any significant impact of ECHG CSR disclosure score on ROA of the company.

**H<sub>0</sub>(6):** There isn't any significant impact of ECHG CSR disclosure score on Tobins Q of the company.

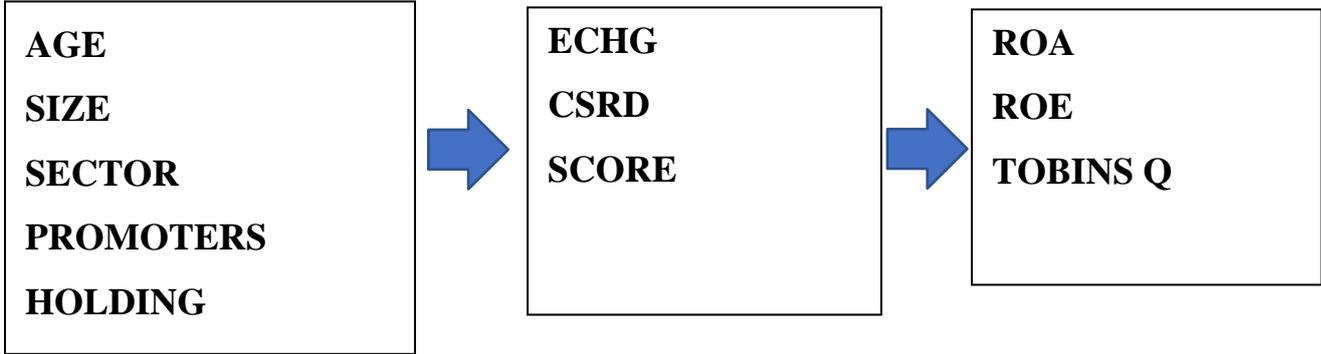
**H<sub>0</sub>(7):** There isn't any significant impact of sector of the company on ECHG CSR disclosure score of the company.

**RESEARCH METHODOLOGY**

Research Methodology refers to a logical methodology covering the overall selected approach. To associate a variety of mechanisms of the study in a rational way and to confirm that the mentioned research problem is answered effectively taking into consideration the entire collection, measurement and analysis of data, the following research framework has been taken into consideration:

*Figure 1: Proposed Model*

*Research Framework used to study the impact of Corporate Characteristics on CSR Disclosure practices and its impact on the financial performance of the Company*



### **Research Design**

Exploratory Research, Empirical Research and Conclusive Research is applied which will provide insights into the understanding of the problem. Secondary data has been used to formulate appropriate research design, Numerical data is measured in quantitative manner and statistical study attempts to capture the characteristics of population by making decision based on a sample's characteristics. Hypothesis would be measured quantitatively and generalizations made based on the representativeness of the sample. The research is based upon using direct and indirect observation thereby using Empirical Research. This study basically aims to know the impact of ECHG CSR Disclosure practices on the financial performances of the Companies in India and therefore it uses the descriptive design and data empirically.

### **Sampling Design Target Population**

SEBI has made it compulsory to include Business Responsibility Reports (BRR) as part of the annual reports of the Top 100 listed companies based on market capitalization at BSE and NSE. It is mandatory to make these reports available on the website of the company. However, in 2019, SEBI has extended this requirement to the TOP 1000 listed companies as per Market Capitalization.

### **Sample Size**

Hence, this study has tried to measure the impact of corporate characteristics of CSR disclosure patterns of top 100 listed companies as per their market capitalization in India on CSR disclosure score and then to check the impact of CSR disclosure score on the financial performance of the Company. 5 years (2016-2021) data are taken into consideration for the same.

### **Sampling Method**

It is also referred as non-probability sampling as it involves careful selection of particular units for framing a sample as a representative of the entire universe. When population elements are selected because they are easily accessible, it can be termed as Convenience Sampling.

### **Treatment of Variables**

For the purpose of analysis, the Dependent Variables taken into consideration are RONW, ROA and Tobins Q and Independent Variables are Age, Size, Sector and Promoter's Holding. Furthermore, Content analysis method was used to measure the CSRD of the sample companies. It is a research tool used, whereby the text is coded into manageable categories on a variety of levels. To determine the score, 0-5 rating scale is used to calculate the extent of CSRD: (Monika Kansal, 2014)

0 - If the item is not disclosed

1 - If one or less than one sentence has been disclosed

2 - If more than one sentence has been disclosed

3 - If only one quantitative figure is found

4 - If the disclosure is non-monetary and comprises more than one figure

5 - If the disclosure is expressed in monetary terms

Then, the performance is measured through matching year's adjusted Return on Net Worth (RONW), Tobins Q and Return on Assets (ROA) were calculated for 100 companies for five years. Out of which due to unavailability of reports of 3 companies, the annual reports of 97 companies were taken into consideration. This  $97*5 = 485$  data points were used for multiple regression analysis to check the impact of different CSR disclosure practices on the financial

performance of the company. Size of the company is measured by Market Capitalization and Ownership Structure is measured by Promoter's Holding.

### **Data Collection Method**

The study has taken into consideration Secondary Data collection technique whereby Annual reports, Corporate Social Responsibility CSR reports and Business Responsibility Reports (BRR) are referred for five years (2016-2021).

10 different items based on ECHG CSR disclosure practices as discussed in the literature namely Emission of Carbon & Harmful Gases ECHG (measured by 10 items)

These items are:

- a) Setting Carbon emission targets
- b) Disclosing mode used for reducing carbon emission<sup>3</sup> Statements showing that emissions within the limits<sup>4</sup> Efforts to reduce carbon emissions
- c) Clean development management projects (use of clean technology)
- d) Carbon emission management system<sup>7</sup> Green building movement
- e) Statements that company is carbon positive
- f) Signatory to MOU with other corporate with regard to reduction of emissions<sup>10</sup> Membership of United Nation Global Compact (UNGC) Program

### **Data Analysis Technique**

The study aims to analyze and explain the impact of four independent variables (age, size, promoter's holding and sector) on ECHG CSRD score and then the impact of score on the performance of the company termed as RONW, Tobins Q and ROA.

Regression analysis is used to understand the relationship of three independent variables (age, size and promoter's holding) and ECHG CSRD score of the company CSRD score. Also, to understand the relation of ECHG CSRD score and performance of the company (RONW, Tobins Q and ROA), regression analysis was undertaken.

### **Analysis And Discussion**

H<sub>0</sub>(1): There is no significant impact of Age of the company on ECHG CSR disclosure score of the company.

H<sub>0</sub>(2): There is no significant impact of size of the company on ECHG CSR disclosure score of the company.

H<sub>0</sub>(3): There is no significant impact of Promoter's Holding of the company on ECHGCSR disclosure score of the company.

### **Results and Interpretation**

To test the above hypothesis regression is applied between three independent variables Age, Size, Promoter's Holding and dependent variable ECHG CSRD Score. It can be concluded from table 1.1 that model is significant. Also, table 1.2 indicates that all independent variables together explain 7.04 per cent of variation in ECHG CSRD Score.

Table 1.1: Result of ANOVA for ECHG CSR Score

	Df	SS	MS	F	p-value
<b>Regression</b>	3	23.08	7.69	11.97	0.0000*
<b>Residual</b>	474	304.50	0.64		
<b>Total</b>	477	327.58			

Note: \* significant at 5 per cent

Table 1.2: Regression Statistics for Age, Size and Phold on ECHG CSR Score

<b>Multiple R</b>	0.2654
<b>R Square</b>	0.0704
<b>Adjusted R Square</b>	0.0645
<b>Standard Error</b>	0.8015
<b>Observations</b>	478

Table 1.3: Coefficient Summary for ECHG CSR Score

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
<b>Intercept</b>	1.0942	0.1210	9.0399	0.0000*
<b>AGE_A</b>	0.0025	0.0008	2.9358	0.0035*
<b>MC</b>	0.0000	0.0000	5.3944	0.0000*
<b>Phold</b>	-0.0000	0.0018	-0.0336	0.9732

Note: \* significant at 5 per cent

Hence, ECHG CSR Score can be measure as follow:

Now, as shown in table 1.3, hypothesis 3 is not rejected. Thus, there is no significant impact

$$\text{ECHG CSR Score} = 1.0942 + 0.0025 * \text{Age} + 0.0000 * \text{MC} - 0.0000 * \text{PHold}$$

of promoter's holding on ECHG CSR Score. However, hypothesis 1 and 2 are rejected and based on that it can be concluded that there is significant positive impact of age and market capitalization of the company on ECHG CSR score of the company.

#### Discussion

Results of above hypothesis explain close relationship between age and size of the company and its ECHG CSR Score. Here, it can be understood that when size of company is bigger, higher the ECHG CSR Score of the company.

**H<sub>0</sub>(4): There is no significant impact of ECHG CSR disclosure score on RONW of the company.**

Table 1.4: Result of ANOVA for ECHG CSR Score

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	110.5802914	110.580291	0.05571761	0.813498676
Residual	476	1944696.2562	1984.656		
Total	477	944806.8365			

Note: \* significant at 5 per cent

Table 1.5: Regression Statistics for ECHG CSR Score on RONW

Multiple R	0.01081851
R Square	0.00011704
Adjusted R Square	-0.0019836
Standard Error	44.5494781
Observations	478

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>
Intercept	0.136699211	0.014635989	9.339936965	3.7112E-19	0.107940075	0.165458346	0.10794007
ECHG	0.006773024	0.008945242	0.757164934	0.44932568	-0.010804022	0.024350069	0.01080402

Table 1.6: Coefficient Summary for RONW

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>
Intercept	24.3876503	4.027305289	6.05557527	2.842E-09	16.47415559	32.30114503	16.47415559
ECHG	-0.5810063	2.461413607	-0.2360458	0.81349868	-5.417586144	4.255573544	-5.417586144

Note: \* significant at 5 per cent

Table 1.7: Result of ANOVA for ECHG CSR Score

Note: \* significant at 5 per cent

Hence, RONW can be measured as follow:

$$\text{RONW} = -0.5810063 * \text{ECHG}$$

Now, as shown in table 1.4, hypotheses 4 is not rejected.

**H<sub>0</sub> (5): There is no significant impact of ECHG CSR disclosure score on ROA of the company.**

Table 1.8: Regression Statistics for ECHG CSR Score on ROA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.01502731	0.01502731	0.573298738	0.449325684
Residual	476	12.47691494	0.026212006		
Total	477	12.49194225			

Hence, ROA can be measured as follow:

$$ROA = 0.006773024 * ECHG$$

Now, as shown in table 1.7, a hypothesis 5 is not rejected.

**H<sub>0</sub>(6): There is no significant impact of ECHG CSR disclosure score on TOBINS Q of the company.**

Table 1.9: Coefficient Summary for ROA

<i>Regression Statistics</i>	
Multiple R	0.034683717
R Square	0.00120296
Adjusted R Square	-0.00089535
Standard Error	0.161901224
Observations	478

Note: \* significant at 5 per cent

Table 1.10: Result of ANOVA for ECHG CSR Score

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	16.23865908	16.23865908	0.449619894	0.502840715
Residual	476	17191.41397	36.11641591		
Total	477	17207.65263			

Note: \* significant at 5 per cent

Table 1.11: Regression Statistics for ECHG CSR Score on TOBINS Q

<i>Regression Statistics</i>	
Multiple R	0.030719509
R Square	0.000943688
Adjusted R Square	-0.00115517
Standard Error	6.009693495
Observations	478

Table 1.12: Coefficient Summary for TOBINS Q

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>
Intercept	5.027602899	0.543280672	9.254153812	7.34429E-19	3.960077986	6.09512781	3.960078
ECHG	-0.222647108	0.332042977	0.670537019	0.502840715	0.875098352	0.42980414	-0.875098

Note: \* significant at 5 per cent

Hence, TOBINS Q can be measured as follow:

**TOBINS Q = -0.222647108\* ECHG**

Now, as shown in table 1.10, a hypothesis 6 is not rejected.

**H<sub>0</sub> (7): There is no significant impact of sector of the company on ECHG CSR disclosure score of the company.**

**Results and Interpretation:** Table 1.13 shows homogeneity for ECHG CSRD Score

Table 1.13: Test of Homogeneity

<b>Hypothesis</b>	<b>t-Statistics</b>	<b>p-value</b>
54	7.068	0.000*

Note: \* significant at 5 per cent

As shown in Table 1.13 results of test of homogeneity for hypothesis 7 violate assumption of equal variance. Therefore, researcher has considered ANOVA for testing hypothesis 7.

Table 1.14: Mean comparison

<b>Hypothesis</b>	<b>Test</b>	<b>F-Statistics</b>	<b>p-value</b>
54	W-ANOVA	31.671	0.000*

Note: \* significant at 5 per cent

As shown Table 1.14, hypothesis 7 is rejected. The significant difference is found in ECHG CSRD Score among different Sectors. ECHG CSRD Score is found to be significant (p<0.05) at 5 per cent level. Further, to assess which two sectors may create a difference, researchers performed post hoc analysis. As assumption of equality of variance violated, Games-Howel Post -Hoc is used.

Table 1.15: Post Hoc for ECHG CSRD Score

Hypothesis(DV)	Test	Sector	Sector	Difference	P-value
<b>54 (ECHG CSR Score)</b>	Games-Howel	1	2	-0.22264	0.718
			3	0.78171*	0.000*
			4	0.11667	0.992
			5	0.16333	0.964
			6	0.93615*	0.000*
			7	0.16200	0.930
		2	3	1.00435*	0.000*
			4	0.33931	0.055
			5	0.38597	0.176
			6	1.15879*	0.000*
			7	0.38464*	0.000*
		3	4	-0.66505*	0.000*
			5	-0.61838*	0.022*
			6	0.15443	0.822
			7	-0.61971*	0.000*
		4	5	0.04667	1.000
			6	0.81948*	0.000*
			7	0.04533	1.000
		5	6	0.77281*	0.006*
			7	-0.00133	1.000
		6	7	-0.77415*	0.000*

Note: \* significant at 5%, \*\* significant at 10%

### **Discussion**

In case of activities related to Emission of Carbon and Harmful Gases (ECHG), disclosure is more in areas of IT Software companies, Refineries, FMCGs, Mineral and Mining Products than in banks, Pharmaceuticals and Automobile companies.

### **Conclusion**

Larger and experienced companies tend to disclose more in ECHG activities hence it is positively significant with the size and age of the company. They understand the imperative to inform the public at large as in what steps are taken by the company in this area. Also, companies who have established their business since long recognize the need for such disclosure especially in a developing country like India where this seems to be a burning issue.

Government is also appreciative about those companies who disclose their memberships with UNGC programs as well as entering into MOUs with other corporates with regard to reduction of emissions.

While taking a look at the reports, stakeholders are highly concerned about the actions taken by the companies towards clean development projects.

Customers, while coming across statements that company is carbon positive, carry a very favorable impression in their minds regarding the products of the company as well.

In case of activities related to Emission of Carbon and Harmful Gases (ECHG), disclosure is more in areas of IT Software companies, Refineries, FMCGs, Mineral and Mining Products than in banks, Pharmaceuticals and Automobile companies.