

### **3. CHAPTER – THREE: RESEARCH METHODOLOGY**

India became the first country in the world to make CSR mandatory for companies following the amendments in the New Companies Act 2013 in April 2014. According to the provisions of the Section 135 companies with certain turnover and profitability are required to spend 2% of the Net Profit for the past three years on CSR.

After independence, the successive governments of the country have tried to address the developmental and welfare issues of the country through various approaches as seen earlier. However, in a large country like India governmental efforts complimented by corporate partnership can give better results in terms of development, social welfare, and environmental protection.

India has become a testing ground for such mandatory provisions of CSR. Many benefits from CSR were presumed while making it mandatory. Corporate Social Responsibility has been considered as a tool for achieving inclusive growth in the country

Literature review makes it evident that research has been done in the past to analyze the impact of CSR initiatives on financial performance of companies. Research has also been done to examine the impact of CSR initiatives on the Society. However, there is lack of such research in Indian context.

In both cases research has been done majorly based on perception of the stakeholders. The main method of response, capturing being the questionnaire method.

#### **3.1 Purpose of the Research:**

Most of the studies related to CSR cover the period before the introduction of the Mandatory provision regarding CSR in India. A period of 7 years has gone after the introduction of mandatory CSR in India. India has been the testing ground for such mandatory provisions. 2% of average net profit of the preceding 3 (three) years involves a huge amount which might have an impact on the financial parameters of any company. Earlier CSR was adopted by companies as a strategic move towards brand building, favourable customer perception and increase in reputation thereby leading to increased sales and market share. But now it has become mandatory. Even a marginal net profit of INR 5 cores would attract the mandatory provision of CSR in India. Obviously, this would lead to a negative impact on the current year cashflow. However, such spending might impact the future profitability of a company. This may be in the form of a negative or positive impact on Earning Per Share, liquidity

position, Return on Assets, Return on Equity, Return on Investment etc and further lead to an impact on the P/B ratio and market valuation of the company in the long run. This research would attempt to find out whether spending on CSR has any significant impact on the financial performance of the selected companies. If it has an impact then whether it would have a positive or negative impact?

It has been presumed that the mandatory provisions would help the country in achieving its development goals with the help of corporate partnership. Though a period of seven years is a very small period to examine the impact of such initiatives, but an attempt to analyse what has happened during the last seven years would throw focus on the fact that whether mandating CSR on corporates would accelerate the growth and development of India or hinder it.

Studies on societal impact in India has been done majorly based on perception of the stakeholders. Majority of such studies have been restricted to specific company or a sector, region, district, or state. The questionnaire method of collecting data suffers from certain limitations, the main limitation being affected by the bias and prejudices of the respondents. The research includes around 25 private sector companies from the Nifty 100. These companies are spread across India with their CSR initiatives in multiple states and districts. Capturing data by administering questionnaires to beneficiaries is practically impossible when the sample is spread so extensively.

Moreover prior to the mandatory provision of the New Companies Act 2013 CSR was perceived mostly based on stakeholder's theory. But the New companies Act has specifically defined the thrust areas for CSR. Spending done in the prescribed area will be considered as CSR for the purpose of Clause 135. Considering the new companies Act 2013 the research aims to study the amount of actual CSR spending in selected thrust areas by the sample companies and study what kind of CSR initiatives are taken by the companies and their outreach.

### **3.2 Objectives of the Research:**

The literature review has indicated that researchers have selected varied financial indicators in their studies regarding CSR and its relationship with financial performance. The financial indicators which are selected have a direct impact on the results for the studies of relationships between CSR and CFP.

Profitability of any company can be studied through various financial indicators which can be accounting based or market based. Researchers have adopted varied approaches for financial

analysis. The review of literature shows that majority of the researchers advocate use of accounting-based indicators of financial performance as they reflect the actual working of the company and its financial performance based on historical data. The reason being that historical accounting data is audited data and hence accurate. Moreover, the accounting based financial indicators cover various aspects of business-like sales, investment, assets profit, expenses, capital employed etc. Thus, when accounting based indicators are used, they consider the interest of all the stakeholders of the business. According to (Hutchison & Gul, 2004) and (Mashayekhi & Bazaz, 2008) accounting-based performance measures present the management actions outcome and are hence preferred over market-based measures.

Alternatively, there are studies considering market-based performance indicators as they are the reflection of future or long-term performance of the company. The market-based performance indicators are the reflectors of the expectations of the shareholders regarding the firm's future performance, which is based on the previous and current financial performance (Y. Shan, 2011) & (Ganguli & Agrawal, 2009). The major criticism of this approach is that it considers only the shareholders interest in the company.

In the backdrop of the above discussion the present research study uses Accounting & Profitability based Indicators like: -

1. ROA = Return on Assets
2. ROE = Return on Equity
3. PAT = Profit after Tax
4. EPS = Earnings per share

A company's profitability depends on many factors like its size, age, risk associated and revenues. Hence instead of studying the composite impact of CSR spending on the overall composite financial performance the research aims to divide the study in three parts.

The first part would attempt to study the contribution of the selected 25 companies towards total CSR spending in the country post mandatory period as reported by the national CSR portal. In the second part the impact of CSR spending on the financial performance of the companies would be analysed. In the final part the study would find out whether there is a significant impact of CSR spending in different categories on the average composite PAT of the selected companies.

Societal Impact is a very broad terminology which embraces the effect of any action or inaction, policy, program, activity or project on people or communities. Measuring societal impact qualitatively is a gigantic task as the methods used to do the same are influenced by individual perception of the respondent/beneficiaries.

In this research thesis Societal Impact means the reach of the CSR spending in terms of people benefited from it and facilities created. The present research is a descriptive analysis which aims at studying the enhancement in the outreach of the CSR programs of the selected private sector companies from the year of implementation of mandatory CSR till 2019-20.

For the development of any economy creation of livelihood/employment is very important to combat the problem of poverty and unemployment. Besides due to increase in the number of educated people and a large young population the requirement of employment creation is a need of the hour for India. However, only increasing the number of educated people does not solve the problem as the changing time require skilled and technology smart workforce for any nation. Similarly, in countries like India providing qualitative and regular healthcare facilities at affordable cost is also a challenge for any government. Keeping all these challenges in mind the study regarding the societal impact aims to analyse the impact of various activities of the selected companies majorly in the area of:

- 1) Education (including special Education and Vocational Training)
- 2) Health care (including sanitation and drinking water)
- 3) Rural development (including rural infrastructure, sustainable livelihood)

According to CSR development sector wise report published by ministry of corporate Affairs, Govt of India. Education, Health care and rural development are the top three thrust area which have attracted highest amount of CSR funds from 2014-15 to 18-19.

The table gives the details of the total CSR spending in the country as reported by the MCA. The data supports the decision to focus on the four major thrust area of CSR spending.

Table 2 CSR development Sector wise report

Development Sector	Amount SpentFY 2014-15(INR Cr.)	Amount SpentFY 2015-16(INR Cr.)	Amount SpentFY 2016-17(INR Cr.)	Amount SpentFY 2017-18(INR Cr.)	Amount SpentFY 2018-19(INR Cr.)	Total
Grand Total (in Cr.)	10,065.93	14,517.21	14,333.04	13,708.02	18,653.48	71277.68
Education	2,589.42	4,057.45	4,504.87	4,645.29	5,717.78	21514.81
Health Care	1,847.74	2,569.43	2,482.10	2,204.45	3,216.10	12319.82
Rural Development Projects	1,059.35	1,376.16	1,554.78	1,479.80	2,308.83	7778.92
Environmental Sustainability	773.99	796.69	1,076.46	1,078.71	1,292.63	5018.48
Poverty, Eradicating Hunger, Malnutrition	274.7	1,252.08	606.55	638.3	1,090.08	3861.71
NEC/ Not Mentioned	1,338.40	1,051.16	388.96	1.04	87.54	2867.1
Livelihood Enhancement Projects	280.17	393.38	515.47	660.58	848.64	2698.24
Vocational Skills	277.07	344.4	373.46	391.76	758.95	2145.64

Sanitation	299.54	631.8	421.71	293.15	440.5	2086.7
Other Central Government Funds	277.1	334.35	419.99	255.63	710.59	1997.66
Prime Minister's National Relief Fund	228.18	218.04	158.8	161.84	300.08	1066.94
Art And Culture	117.37	119.17	305.57	284.06	189.89	1016.06
Swachh Bharat Kosh	113.86	325.52	184.06	213.68	93.81	930.93
Training To Promote Sports	57.62	140.12	180.33	227.75	295.1	900.92
Safe Drinking Water	103.95	180.16	147.79	180.35	211.81	824.06
Women Empowerment	72.87	122.79	141.62	203.9	199.81	740.99
Special Education	41.43	125.84	165.33	124.84	173.89	631.33
Socio-Economic Inequalities	39.04	77.97	148.01	135.92	164.27	565.21
Conservation Of Natural Resources	44.6	49.85	119.09	212.81	63.16	489.51
Animal Welfare	17.29	66.67	78.7	59.13	96.26	318.05
Gender Equality	55.21	73.85	72.6	20.49	50.96	273.11
Slum Area Development	101.14	14.1	51.49	35.11	50.24	252.08
Setting Up Homes and Hostels for Women	8.74	29.28	61.97	69.23	53.01	222.23
Agro Forestry	18.12	57.85	43.45	12.18	64.59	196.19
Armed Forces, Veterans, War Widows/Dependants	4.76	11.14	37.86	27.72	89.2	170.68
Senior Citizens Welfare	8.94	21.87	27.75	33.07	38.4	130.03
Technology Incubators	4.74	26.34	23.09	15.62	30.51	100.3
Setting Up Orphanage	5.12	16.9	16.8	37.05	11.43	87.3
Clean Ganga Fund	5.47	32.82	24.37	4.54	5.41	72.61

Source: Ministry of Corporate affairs, Government of India (on MCA website)

On the basis of above discussion, the main objectives of the study are enumerated as below:

- 1) To identify the amount of CSR spending by the selected companies from 2014-15 to 2019-20 as reported by the Ministry of Corporate Affairs and compare it with the total CSR spending in India by all companies and by the private sector companies as reported by MCA Govt. of India.
- 2) Study the impact of CSR spending on the financial performance of the individual company as reflected by ROA, ROE and PAT and EPS
- 3) To analyse the impact of Composite CSR spending of all selected companies in different thrust areas together on the composite average PAT of the selected companies
- 4) To study the societal impact of various CSR initiatives undertaken by the selected companies in the thrust area of Education (including special Education), Health, Rural Development and Skill Development.
- 5) To analyse the company wise increase in the reach of the CSR initiatives from 2014-15 to 2019-20

### 3.3 Some Operational Definitions:

Various terms used in the study can be interpreted in different ways which could affect the direction and result of the study. Hence certain important operational definition is given below:

#### ROA (Return on Assets)

“Return on Assets (ROA) measures the profitability of a business in relation to its total assets. This ratio indicates how well a company is performing by comparing the profit (net income) it is generating to the capital that invested in assets. The higher the return, the more productive and efficient management is in utilizing economic resources.” (Investopedia, n.d.)

The ROA formula is:

$$\text{ROA} = \text{Net Income} / \text{Average Assets}$$

or

$$\text{ROA} = \text{Net Income} / \text{End of Period Assets}$$

#### ROE (Return on Equity)

“Return on equity (ROE) is a measure of financial performance calculated by dividing net income by equity. The return on equity is a measure of the profitability of a business in relation to the equity.” (Investopedia, n.d.)

$$\text{ROE} = \text{Net Income} / \text{Average Shareholder's Equity}$$

#### PAT (Profit after Tax)

“Profit after-tax is the earnings of a business after all income taxes have been deducted. This amount is the final, residual amount of profit generated by an organization.” (AccountingTools, Inc., n.d.)

$$\text{PAT} = \text{PBT} - \text{Tax}$$

#### EPS (Earning Per Share)

“Earnings per share (EPS) is calculated as a company's profit divided by the outstanding shares of its common stock. The resulting number serves as an indicator of a company's profitability.” (Investopedia, n.d.)

$$\text{EPS} = \text{Net Income} - \text{Preference Dividend} / \text{Number. of Equity shares outstanding}$$

#### Financial Performance

Financial Performance refers to the yearly financial performance of the selected companies as reflected by the accountability and profitability-based performance indicator like ROA, ROE, EPS and PAT.

#### Societal Impact

Societal Impact means the reach of the CSR spending in terms of people benefited from it i.e., the number of beneficiaries, increase in health infrastructure, increase in rural infrastructure etc. from 2014-15 till 2019-20

### **3.4 Significance of the study:**

The present study is specifically aimed at analysing the financial and societal impact of CSR spending of selected private sector companies in India after the implementation of the mandatory provision of CSR. It would help in creating an insight whether the mandatory provisions are benefiting the country or contrarily are having negative impact on the performance of the selected companies. As the selected companies are few of the Nifty 100 companies, obviously the results would be representative for the entire corporate sector. It would also help in examining, what kind of CSR initiatives are given more weightage by the companies. While studying the impact the research would also measure the amount of CSR spending in the selected thrust area of Education (including vocational training and special education), Health (including sanitation and safe drinking water) and Rural development (including sustainable livelihood), vis a vis the enhancement in the outreach of the CSR programs of the selected private sector companies from the year of implementation of mandatory CSR till 2019-20.

Thus, the study would give a meaningful insight to determine whether mandatory CSR is moving towards generation of concrete benefits to the nation or resulting into reduction in the returns to the stakeholders. Ultimately the prime objective of a business is to generate profits which leads to increase in shareholder value, profitable utilization of assets, satisfaction of customers, employees and society at large while giving required deliberation to environmental issues. The provisions of New Companies Act specifically includes Environment and Community based initiatives. However, it does not consider employee benefits as CSR. When the government is trying to align corporate philanthropy with the government's developmental agenda, this study would be helpful in examining the increase in the beneficiaries and health, education and rural infrastructure as contributed by the selected private sector companies.

Most of the studies involving measurement of societal impact of CSR have captured societal impact in the form of perception of employees, suppliers, customers, management, or local beneficiaries surrounding the plant locations. In these cases, CSR was mainly concerned with activities related employee benefits or any project for the benefit of the local population. This was before the mandatory provisions. In the current scenario, India has not only mandated CSR but defined the thrust areas of CSR aligning them with the developmental goals of the government. Moreover, the company Act has also outlined the reporting format for the companies. The spending done in these thrust areas will only be considered as CSR. In such scenario, there is a dearth of research in this field. After the introduction of the mandatory CSR very few efforts have been made to assess the societal impact. India was the first country to mandate CSR; hence, we do not find research in foreign context also. Most of research in other countries focus on CSR activities based on the triple bottom line approach whereby CSR is targeted towards environment concerns, employees, and customers & suppliers. Its impact was analysed by capturing perceptions of stakeholders or company management.

### **3.5 Research Questions:**

For fulfilling the various objectives listed in the section several research questions need to be answered. The following research question are developed based on the research objectives.

The **first objective** is to identify the amount of CSR spending by the selected companies from 2014-15 to 2019-20 as reported by the Ministry of Corporate Affairs and compare it with the total CSR spending in India by all companies as reported by MCA Govt. of India. The following research question needs to be answered.

- **Research question 1:** What is the aggregate amount of CSR spending of the selected sample companies in India during the years 2014-15 to 2019-20 as compared to the total CSR spending by all the companies during the same period?
- **Research question 2:** What is the proportion of CSR spending by the selected private sector companies, in the selected thrust areas, with respect to total CSR spending in that thrust area as reported Ministry of Corporate Affairs, Government of India?

The **second objective** of the research is to study the impact of CSR spending on the financial performance of the individual company as reflected by ROA, ROE and PAT and EPS the following research question need to be answered.



- **Research Question 3:** Is there any impact of the CSR spending of one year on the financial performance of the company in the next year as reflected by PAT, ROA, ROE and EPS?

The **third objective** of the research is to analyse the impact of Composite CSR spending of all selected companies in different thrust areas together on the composite average PAT of the selected companies the following question need to be answered.

- **Research Question 4:** Is there any impact of combined CSR spending in the selected thrust area of the sample companies on the combined average profit of the tax of the companies?

The **fourth objective** of the research is to study the societal impact of various CSR initiatives undertaken by the selected companies in the thrust area of Education (including special Education and vocational training), Health (including safe drinking water and Sanitation), Rural Development including infrastructure and sustainable livelihood) and to analyse the company wise increase in the reach of the CSR initiatives from 2014-15 to 2019-20 the following research question need to be answered

- **Research Question 5:** What are the different CSR activities undertaken by the selected companies in the thrust area of Education (including special Education), Health, Rural Development and Skill development?
- **Research Question 6:** What has been the outreach of the different CSR initiatives of the selected companies

### 3.6 Methodology

“Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In it we study the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them”. (C.R.Kothari).The following points describe the methodology adopted for the present research. The methodology is further divided into two parts-

- Methodology for analysis of Financial Impact of CSR spending by selected private sector companies in India
- Methodology for analysis of Societal Impact of CSR spending by selected private sector companies in India

### 3.6.1 Methodology for analysis of Financial Impact of CSR spending by selected private sector companies in India

#### 3.6.1.1 Sample Selection

The present research uses the non-probability purposive sampling method with inclusion and exclusion criterion.

- The universe for the purpose of research consists of all the listed private sector companies on the National Stock Exchange.
- Initially Nifty 100 companies as on 2/11/2020 were considered to select the sample companies.
- In the next step all companies providing financial services were removed. This is because such companies have different accounting and reporting issues. 23 such companies were removed.
- In the succeeding step 5 companies having different reporting period (other than April to March) were removed to bring uniformity.
- As the study is regarding CSR spending of private sector companies 10 government owned companies were also removed from the list.
- In order to measure the impact of CSR spending on financial performance and to study its societal impact only companies with a long tradition of CSR and those who have spent substantial amount on CSR have been considered. Moreover a few companies are loss making companies and hence 31 companies have been removed from the list.
- The companies which have reported CSR spending in their annual reports since 2009-10 have only been finally selected. Those companies whose data was not found for the earlier years were excluded. 6 such companies were excluded. This brings down the sample size to 25 companies. The following 25 companies were selected to study the financial impact of CSR spending. The table 3.2 gives the details of the companies selected.

*Table 3Details of Companies Selected*

SR	COMPANY	SECTOR	CIN
1	ADANI PORTS AND SPECIAL ECONOMIC ZONE LTD.	SERVICES	L63090GJ1998PLC034182
2	ASIAN PAINTS LTD.	CONSUMER GOODS	L24220MH1945PLC004598
3	AUROBINDO PHARMA LTD.	PHARMA	L24239TG1986PLC015190
4	BAJAJ AUTO LTD.	AUTOMOBILE	L65993PN2007PLC130076
5	BOSCH LTD.	AUTOMOBILE	L85110KA1951PLC000761
6	CADILA HEALTHCARE LTD.	PHARMA	L24230GJ1995PLC025878

7	CIPLA LTD.	PHARMA	L24239MH1935PLC002380
8	DR. REDDY'S LABORATORIES LTD.	PHARMA	L85195TG1984PLC004507
9	GRASIM INDUSTRIES LTD.	CEMENT & CEMENT PRODUCTS	L17124MP1947PLC000410
10	HCL TECHNOLOGIES LTD.	IT	L74140DL1991PLC046369
11	HERO MOTOCORP LTD.	AUTOMOBILE	L35911DL1984PLC017354
12	HINDALCO INDUSTRIES LTD.	METALS	L27020MH1958PLC011238
13	HINDUSTAN ZINC LTD.	METALS	L27204RJ1966PLC001208
14	ITC LTD.	CONSUMER GOODS	L16005WB1910PLC001985
15	INFOSYS LTD.	IT	L85110KA1981PLC013115
16	JSW STEEL LTD.	METALS	L27102MH1994PLC152925
17	LUPIN LTD.	PHARMA	L24100MH1983PLC029442
18	MAHINDRA & MAHINDRA LTD.	AUTOMOBILE	L65990MH1945PLC004558
19	MARUTI SUZUKI INDIA LTD.	AUTOMOBILE	L34103DL1981PLC011375
20	RELIANCE INDUSTRIES LTD.	OIL & GAS	L17110MH1973PLC019786
21	SHREE CEMENT LTD.	CEMENT & CEMENT PRODUCTS	L26943RJ1979PLC001935
22	TATA STEEL LTD.	METALS	L27100MH1907PLC000260
23	TECH MAHINDRA LTD.	IT	L64200MH1986PLC041370
24	ULTRATECH CEMENT LTD.	CEMENT & CEMENT PRODUCTS	L26940MH2000PLC128420
25	VEDANTA LTD.	METALS	L13209MH1965PLC291394

### 3.6.1.2 Data Collection

One of the important objectives of the study is to study the impact of CSR spending on the financial performance of the selected private sector companies. For this purpose, the data will be collected from the published sources like the Annual Reports of the sample companies, articles, reports published on websites, and various data sources on web.

### 3.6.1.3 Time Period of Study:

The financial impact study covers the time span of 11 years i.e., from 2009-10 to 2019-20 for the purpose of studying the impact of CSR spending on the financial performance of the company. To study the composite impact of CSR spending of selected companies in the defined thrust areas on the average profit the period considered is from 2014-15 to 2019-20.

Method and Hypothesis:

The study would be a quantitative analytical analysis based on secondary data to bring out the financial impact of CSR spending of private sector companies.

For studying the financial impact, the study involves development and testing of hypothesis by using statistical tools and techniques. The statistical technique used is multivariate regression analysis. The analysis is done using SPSS software. The method adopted to answer each research question is listed below

#### Method- Research question 1 and 2

To answer different research question diverse approach is undertaken by the researcher. To answer the research question 1 and 2 the CSR spending of the selected 25 companies would be tabulated and categorized as per the thrust areas specified in schedule VII of the Companies Act 2013. The aggregate CSR spending by the companies will be compared, year wise from 2014-15 to 2019-20 through graphical representation, with the total CSR spending in the country as reported by the National CSR portal during each year. As the study is regarding the CSR spending of the private sector companies the aggregate CSR spending of the selected companies will also be compared with the aggregate CSR spending of all non-government companies as reported by the national CSR portal.

The CSR spending by the selected companies will also be analysed to find the thrust areas which have received highest attention by the selected companies.

#### Method- Research question 3 and 4

The impact of CSR spending on the financial performance of the company is analysed by using statistical tools and methods.

#### Independent Variable:

To study the impact of CSR spending on financial performance, amount of CSR spending has been taken as the independent variable.

#### Dependent Variable:

To measure the financial performance of the sample companies' representative variable PAT, ROA, ROE and EPS are taken as dependent (predictor) variable.

The CSR spending of one year by the companies may have an impact on their profitability of the succeeding years (Garg, 2016). Hence a regression model with lag period is attempted to understand the relation between profitability and CSR spending of the selected sample companies. A multivariate regression analysis is done using SPSS software.

Considering the four representative dependent variables representing profitability the regression equation will take the form: -

- i.  $PAT = a + b (\text{CSR spending})$
- ii.  $ROE = a + b (\text{CSR spending})$
- iii.  $ROA = a + b (\text{CSR spending})$
- iv.  $EPS = a + b (\text{CSR spending})$

To examine whether any change in CSR spending has significant impact on PAT, ROE, ROA, and EPS we test whether the corresponding beta coefficient of CSR is zero i.e., the predictor variable CSR spending does not have a statistically significant relationship with the response variable profitability represented by PAT, ROE, ROA and EPS. The alternate hypothesis states that coefficient of CSR spending is not zero i.e., it has a statistically significant relationship with profitability.

Considering the above points, the following hypothesis is framed:

#### Hypothesis-1

H<sub>01</sub>: CSR spending does not have a significant impact on PAT i.e.,  $b = 0$

H<sub>11</sub>: CSR spending have a significant impact on PAT i.e.,  $b \neq 0$

#### Hypothesis-2

H<sub>02</sub>: CSR spending does not have a significant impact on ROE i.e.,  $b = 0$

H<sub>12</sub>: CSR spending have a significant impact on ROE i.e.,  $b \neq 0$

#### Hypothesis-3

H<sub>03</sub>: CSR spending does not have a significant impact on ROA i.e.,  $b = 0$

H<sub>13</sub>: CSR spending have a significant impact on ROA i.e.,  $b \neq 0$

#### Hypothesis-4

H<sub>04</sub>: CSR spending does not have a significant impact on EPS i.e.,  $b = 0$

H<sub>14</sub>: CSR spending have a significant impact on EPS i.e.,  $b \neq 0$

To answer the *research question 4* the total CSR spending is divided into four categories based on the details given in the annual reports of the selected companies. An average (from the period from 2014-15 to 2019-20) of the CSR spending in each category is taken. Similarly, the average PAT (from 2014-15 to 2020-21) is taken for all the selected company and a composite analysis has been done to see the overall picture after the implementation of

the new mandatory provisions. As the study considers impact of CSR spending using a lag period the PAT data is taken for 7 years while that of the CSR spending is taken for 6 years.

The categories considered for the analysis are: -

- Education
- Health including sanitation and safe drinking water
- Rural Transformation including infrastructure and sustainable livelihood
- Other.

The above categorization is because almost all the selected companies have included Education, Health and Rural transformation in their CSR portfolio. However, the other categories have not attracted a regular spending in all the years. The other category includes the CSR spending done by the companies in all other categories specified by schedule VII of The New Companies Act 2013.

To examine whether any change in CSR spending has significant impact on PAT we test whether the corresponding beta coefficient of CSR spending is zero i.e., the predictor variable CSR spending does not have a statistically significant relationship with the response variable profitability represented by PAT. The alternate hypothesis states that coefficient of CSR spending is not zero i.e., it has a statistically significant relationship with profitability.

Considering the one dependent variable and 4 predictor variables the equation could take the form:

$$\text{PAT} = a + b_1 \text{CSR spending (Education)} + b_2 \text{CSR spending (Rural transformation)} + b_3 \text{CSR spending (Health)} + b_4 \text{CSR spending (Other)}$$

#### Hypothesis:5

H<sub>05</sub>: CSR spending in different categories does not have an impact on PAT i.e.,  $b_1, b_2, b_3, b_4 = 0$

H<sub>15</sub>: CSR spending in different categories have an impact on PAT i.e.,  $b_1, b_2, b_3, b_4 \neq 0$

### 3.6.2 Methodology for analysis of Societal Impact of CSR spending by selected private sector companies in India

#### 3.6.2.1 Sample Selection

For the purpose of studying societal impact, it is practically difficult to include all the 25 companies hence the number of companies were narrowed down to a few selected based on certain criterion mentioned in the following points.

- Amount of CSR spending

The CSR spending of the Companies was tabulated, and an average of 11 years was ascertained. Attempt has been made to include the companies doing substantial CSR spending.

- Representation of all sectors:

An attempt has been made to include a company from every sector, subject to availability of information.

- Availability of information through various sources

In a few cases though the company has done a substantial amount availability of exact information which would help in analysing the societal impact has been an issue. In such case another company in the same sector has been selected.

- Long CSR history

The companies having a long tradition of CSR spending have been given preference

From the table showing the average CSR spending of 11 years of the selected 25 companies total five companies were selected for case study purpose taking into consideration the criterion of availability of data, Amount of CSR spending, long philanthropic history and representation of different sector.

The five companies selected were: -

- 1) Reliance Industries Ltd.
- 2) ITC Ltd.
- 3) Tata Steel Ltd.
- 4) UltraTech Cement Ltd.
- 5) Tech Mahindra Ltd.

*Table 4 Average CSR spending of the Selected companies over 11 years*

	Company Name	Industry	Average CSR in Crore INR
1	Reliance Industries Ltd.	OIL & GAS	562.9836
2	Tata Steel Ltd.	METALS	187.8255
3	ITC Ltd.	CONSUMER GOODS	180.1164
4	Infosys Ltd.	IT	169.9873
5	Maruti Suzuki India Ltd.	AUTOMOBILE	66.66
6	Mahindra & Mahindra Ltd.	AUTOMOBILE	59.70818
7	Bajaj Auto Ltd.	AUTOMOBILE	52.99909
8	Hindustan Zinc Ltd.	METALS	50.25909
9	JSW Steel Ltd.	METALS	48.21545
10	UltraTech Cement Ltd.	CEMENT & CEMENT PRODUCTS	48.17773
11	Hero MotoCorp Ltd.	AUTOMOBILE	47.83545

12	Tech Mahindra Ltd.	IT	46.26964
13	HCL Technologies Ltd.	IT	42.00273
14	Adani Ports and Special Economic Zone Ltd.	SERVICES	40.85109
15	Hindalco Industries Ltd.	METALS	33.26818
16	Asian Paints Ltd.	CONSUMER GOODS	25.86091
17	Dr. Reddy's Laboratories Ltd.	PHARMA	25.31818
18	Vedanta Ltd.	METALS	25.14091
19	Grasim Industries Ltd.	CEMENT & CEMENT PRODUCTS	24.92909
20	Shree Cement Ltd.	CEMENT & CEMENT PRODUCTS	18.15918
21	Lupin Ltd.	PHARMA	17.92455
22	Bosch Ltd.	AUTOMOBILE	16.71752
23	Cipla Ltd.	PHARMA	16.55545
24	Cadila Healthcare Ltd.	PHARMA	16.20636
25	Aurobindo Pharma Ltd.	PHARMA	14.80909

### 3.6.2.2 Data Collection

Another objective is to study the societal impact of CSR spending by the selected private sector companies. For that purpose, data will be gathered from Annual reports, CSR reports, Impact assessment reports as published by the companies on their websites, newspapers, articles, data, and report on the official CSR website of the Ministry of Corporate Affair.

### 3.6.2.3 Time Period of Study

The societal impact also covers the period from 2014-15 to 2019-20 as the main purpose is for studying the impact of post mandatory CSR spending.

### 3.6.2.4 Method

The study would be a descriptive study based on secondary data to bring out the societal impact of CSR spending of private sector companies.

For the study of societal impact, the research uses the case study methodology. Analysis will be done based on the data collected to analyse the increase in the number of beneficiaries and facilities in the selected thrust area with help of tabulation and graphical representation.

### Method- Research question 5 and 6

For studying the societal impact, the method used is Case Study method. The CSR initiatives of the selected companies and various projects would be analysed using graphical representation and tabulation. The study would be based on secondary data extracted from various CSR reports, Impact assessment reports and websites of the respective companies.



### **3.7 Limitations of the Study:**

- ❖ The study is based on secondary data as beneficiaries are spread over a vast geographical area.
- ❖ The study does not take into consideration market-based performance indicators which are more futuristic and long term.
- ❖ The study measures only a quantitative increase in beneficiaries and health, educational and rural infrastructure.
- ❖ The period of study for societal impact considers only the years after the introduction of the mandatory provisions.

### **3.8 Delimitation of Study**

- ❖ The study is based on sample drawn from NIFTY 100 companies.
- ❖ Only Private sector companies are included in sample.
- ❖ Financial Companies are excluded from the sample.