
Accounting Metrics of CSR spending of selected NSE 200 Companies

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Introduction

Corporate Social Responsibility means what the companies gives back to the societies from their profits for utilizing the resources like land, water, natural resources in the case of mining business, etc. CSR is the voluntary duty of the companies to give back the good environment to the society. After profit maximization, it is a social liability of the companies to enrich the surroundings by CSR activities. As rightly, put forward by ("Commission of the European Communities," 2002) that "CSR is a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on the voluntary basis". "Corporate social responsibility is the commitment of business to contribute to sustainable economic development, working with employees, their families, the local community, and society at large to improve the quality of life" (WBCSD, 2000). The CSR concepts is not the new thing; it is started during the king's periods itself. (Yadav & Singh, 2016) opines that in India CSR duties were performed by king / Samrat for the development of society but it was in the form of donation. In the outdated Indian Companies' Act 1956, there was no Mandatory CSR spending form the company's profit but in Companies act 2013, which came into force on 1st April 2014 makes it mandatory for companies with a net worth of more than Rs. 500 crores, or turnover of Rs. 1,000 crores, to adopt a CSR policy under the Sec.135 of the act. According to this Act, companies with a minimum net worth of Rs.500 crores, turnover of Rs.1000 crore or net profit of Rs.5 crore or more are required to spend at least two percent of their three-year average annual net profit on social welfare initiatives (Garai, 2017). After the enforcement of the companies' act 2013, lot of researcher are coming with different opinion about the CSR spending and its impact on performance of the companies and so on, giving us vast opportunities to explore different aspects of companies. Previous studies related to CSR and its impact reveals that there are ample number of literature related to various aspects of CSR spending and its impact like (Bedi, 2009) examines the financial performance and social responsibility of 37 companies and finds a positive relation between CSR and financial performance. CSR spending and its impact on firm's profitability have been explored internationally for example in case of Nigeria (Bolanle, Adebiyi, & Muyideen, 2012) checks the causal relationship between the profitability and CSR activities of Nigeria banks and finds a positive relation between CSR and profitability. CSR spending's and its impact have also been explored in Asian counties like Bangladesh (Mahbuba & Farzana, 2013) studied the CSR and Profitability of a Dutch Bangla bank using the OLS regression, and their findings also shows significant positive relationship between the CSR and profitability. Similarly, (Hermawan & Mulyawan, 2013) studies CSR and its impact on profitability of Indonesia's listed companies. They used different proxy for profitability like, Net profit margin, ROA, and ROE and their findings shows that all the profitability variables are not significantly correlated with CSR spending's. (Kiran, Kakakhel, & Shaheen, 2015)conducted a study on CSR and Firm profitability of oil and gas sector of Pakistan, and they found that there is positive correlation between CSR and Net profit & net profit margin, and got negative correlation between CSR and Total assets and there is no significant impact of CSR activities on profitability. (Tripathi & Dr Kirti Agarwal, 2015) also checks the impact of Corporate Social Responsibility on the profitability and sales value of the selected companies, and they found the impact on the variables. (Rajnish & Dr F B, 2016) in case of Indian in their paper, on the impact of CSR on financial performance using public and private sector banks finds that that there is a positive impact of CSR on financial performance. The pattern of spending of BSE 30 companies related to CSR activities have also been exposed by (Dr Rajender & Upasana Dhanda, 2017) from which they conclude that there is a fairness in CSR initiatives taken by the selected firms in their study. The of precious literature helped us to identify one such research gap i.e we identified that there is a dirt of literature related to industry-wise analysis of CSR spending and its impact on profitability with industry wise breakups. This paper outlines -

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the implications of CSR spending on the Net Profit across different industries by testing widely adopted metrics.

Objectives The specific objectives of this paper is to explore and depict the true picture of CSR spending by NSE 200 listed Indian firms and industries, by checking the impact of CSR spending on the profitability with different industry wise breakups.

- **Methodology**

In this study, the secondary data of related to NSE 200 Companies were collected for the period of FY 2014-15 to 2016 -17. The data of CSR disclosers like (Average net profit of the company for the last 3 FY, amount to be spent as per the act, CSR amount spent and CSR unspent amount) and Net profit after tax were collected from CMIE Prowess IQ database as well as annual reports of the companies. To know the industry wise results, we split the whole NSE 200 companies' data into industry wise: companies from Banking industry, financial service industry other than banking services, Construction industry, Electricity industry, Manufacturing industry, Mining industry and Non-financial services industry.

During the analysis, we removed some companies, which are not under the purview of the companies' act 2013. We had chosen the data period from the financial year 2014-15, because even though the CSR spending was mandatory in the company's act 2013, Ministry of corporate affairs gave notification dated 27th Feb 2014, notifying sec 135 of the companies to act 2013 to be effective from 1st April 2014. We used simple percentage analysis and Regression in the study.

We used the following model in this study to check the impact of CSR spending on firms' profitability.

$$\text{Net Profit} = \alpha + \beta (\text{CSR spent}_{t-1}) + U_i$$

Whereas: CSR spent_{t-1} is one lag of CSR spent

- **Results and Discussion**

The Table No.1 below shows the CSR spending details for the financial year 2014-15.

Table. No. 1. Details of CSR Spend by the NSE 200 Companies for the financial Year 2014- 15.

(Rs. In Crores)

Industries	Average Net profit for the last 3 FY	2% of the Average NP	CSR Spent	Amount Unspent	Percentage of the amount spent
Banking	63000.32	1260.02	672.38	588.05	1.07
Financial Services	33036.43	660.73	394.89	267.76	1.20
Construction	8020.71	160.42	117.52	43.16	1.47
Electricity	26581.72	531.61	399.32	149.24	1.50
Manufacturing	142386.30	2847.64	2609.29	571.45	1.83
Mining	47918.52	958.38	816.99	176.31	1.70
Non- Financial Services	67600.38	1352.02	885.90	493.40	1.31
Total	388544.4	7770.80	5896.30	2289.37	1.52

Source: Authors Calculation

In the Financial year, 2014-15 the banking industry have not spent minimum 2% amount of CSR. Of which 20 companies includes nationalized banks and SBI, for which they give an explanation that they are not coming under the preview of the company's act, they opined that nationalized banks are coming under the preview of Bank Nationalization Act 1969 and SBI is coming under STATE BANK OF INDIA ACT REGULATIONS, 1955. Therefore, they refrain from spending the whole 2% CSR amount, while rest of the banks are following the sec 135 of the companies Act. Therefore, in the FY 2014-15, they spent 1.07

from their average three years' profit. As a whole, the Manufacturing industry played a vital role in CSR spending activity compared to other industries but though the manufacturing industries are a major player, they did not fulfill the CSR condition. i.e. 2% of the average of the last three financial years. In the FY 2014-15, the NSE 200 companies average net profit of last three financial years was Rs. 388544.4 crores actually they need to spend Rs.7770.80 crores as per company's act, but they spent Rs. 5896.30 crores. Which means they spent only 1.5 % of the three years' profit while 0.5% of the profit remained unspent.

Table. No. 2. CSR Spending's by the NSE 200 Companies for the financial Year 2015-16.

(Rs. In Crores)

Industries	Average profit for the last 3 FY	Net NP	2% of the Average Spent	CSR	Amount Unspent	Percentage of the amount spent
Banking	68289.77	1367.58	812.86	390.21	1.19	
Financial Services	37437.92	748.74	757.74	122.80	2.02	
Construction	7755.46	155.12	149.17	12.80	1.92	
Electricity	26465.27	529.29	749.35	6.01	2.83	
Manufacturing	153329.74	3066.50	3080.79	301.22	2.01	
Mining	43764.58	875.29	706.49	172.70	1.61	
Non- Financial Services	80317.84	1606.48	1140.27	495.26	1.42	
Total	417360.57	8349.00	7396.67	1501.00	1.77	

Source: Authors Calculation

From the above table no. 2, we can see electricity industries spending's on CSR are more than the prescribed limit, of the Average net profits. Spending almost 3%. Likewise, financial services industry and manufacturing industry have also spent more than 2% limit. As per this study, it was due to unspent amount accumulated since last financial year. But one thing we found is that all the three industries which are spending more than 2% have still unspent amount because some selected companies have not spent the entire prescribed amount. The construction industry also spent near to two percent of CSR amount. As a whole, the average CSR spending was only 1.77 percent on the average net profit of last 3 years.

Table. No. 3. CSR Spending by the NSE 200 Companies for the financial Year 2016-17.

(Rs. In Crores)

Industries	Average profit for the last 3 FY	Net NP	2% of the Average Spent	CSR	Amount Unspent	Percentage of the amount spent
Banking	60797.97	1215.96	922.99	328.78	1.52	
Financial Services	39740.49	794.78	729.99	173.16	1.84	
Construction	7465.91	149.41	132.35	18.75	1.77	
Electricity	24830.47	496.60	562.76	0.00	2.27	

Manufacturing	164106.67	3282.24	3381.70	267.27	2.06
Mining	38584.53	771.70	808.45	9.77	2.10
Non- Financial Services	88835.09	1776.79	1459.76	384.91	1.64
Total	424361.13	8487.47	7997.99	1182.64	1.88

Source: Authors Calculation

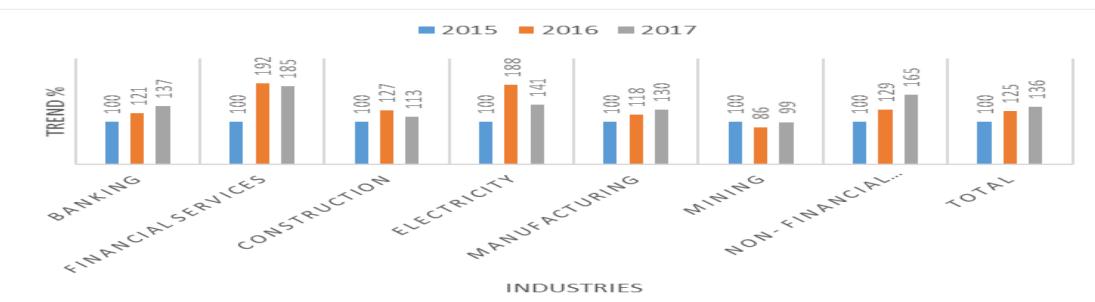
In the financial year 2016-17, the electricity industry spent more than the prescribed limit without keeping any unspent amount. The mining and manufacturing industries have also spent minimum 2% of average net profit. In this year, the CSR amount spent was Rs. 7997.99 crores (1.88% of the average Net profit of the last 3 financial years) and the unspent amount was Rs. 1183 crores.

Figure No. 1 Trend of Average Net profit of preceding three financial years.



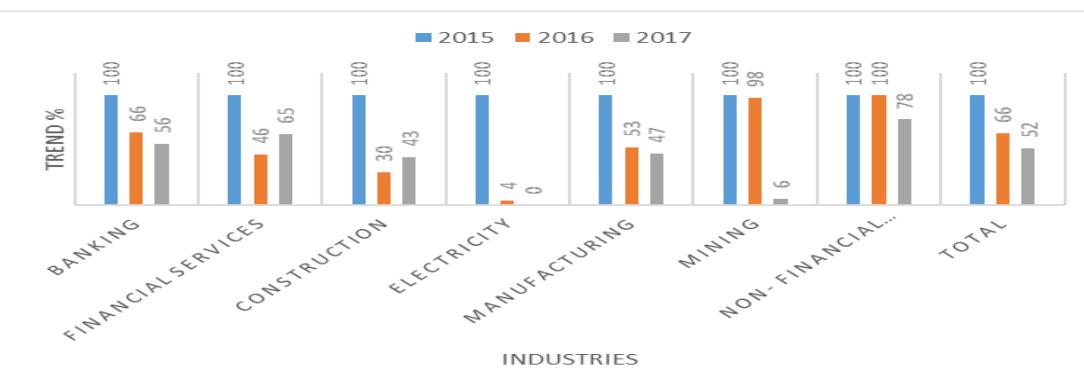
Source: Authors Calculation

Figure No. 2 Trend of CSR amount spent on NSE 200 Companies.



Source: Authors Calculation

Figure No. 3 Trend of CSR amount unspent of NSE 200 Companies.



Source: Authors Calculation

Based on the above Figures 1,2 &3, we can see the trend of Average net profit, the amount spent and unspent on CSR activities for the three financial years 2014-15 to 2016-17 considering 2014-15 as the base period.

While looking into banking industry average net profit increased in the year 2016 by 8% and in the year 2017 it declined by 3% from the base year 2015. In case of the amount spent on CSR, the trend percentage progressively increased from 100% to 137% in the year 2017. We can observe CSR amount unspent is in a decreasing trend, which is good sign for the society. In the year 2017, the percentage unspent amount is 44% lesser than the year 2015. As a whole, we can see that even though the average net profit reduced, the amount spent on CSR activities did not reduced.

In the case of financial service industry average net profit of preceding three financial years is increasing trend. From the year 2015 to 2016, average net profit increased to 13%, and from 2016 to 2017, to 7%. The amount spent on CSR activities increased in the year 2016 by 92% but in the year 2017 there was a slight decrease in the spending. CSR, amount unspent increased by 19% in the financial year 2017 compared to 2016.

While looking into construction industry the Average net profit shows decreasing trend by on an average of 3.5% over the three financial years. Even though this industry profit is in decreasing trend the percentage amount spent on CSR activities are not less than the base period 2015. In the year 2016, the percentage of unspent CSR amount decreased by 70% from the year 2015, then in the year 2017, the percentage of unspent amount increased by 13% from the year 2016.

Electricity industry average net profit for first two years are almost same, because of rounding off the trend percentage and in the year 2017 it reduced by 7%. While seeing the CSR amount spent for the year 2016 it increased by 88% compared to previous year. This was due to the previous year i.e. 2015 CSR unspent amount accumulated and spent in the year 2016. Moreover, in the year 2017, the amount spent got reduced from the year 2016, because of the Average profit was reduced. Seeing the unspent part in the year 2016 only 4% were unspent and while in the year 2017, there is zero unspent amount.

The manufacturing industry is the major industry, among the NSE 200 companies and is leading CSR contributor out of other industries from the list. In this industry average net profit got increased by 15% only from 2015 to 2017. Like profit, the amount spent on CSR activities also increased by 30% in 2017 from the year 2015. In this industry, the unspent part reduced in the year 2017 up to 53% from the year 2015.

In the mining industry, the average net profit was in decreasing trend. Amount spent on CSR, activities also got reduced to 14% in the year 2016. Then in the year 2017, it increased by 13% from the year 2016, even though the average net profit reduced by 10% from the previous year 2016. looking at the trend of unspent amount, in the year 2016, it reduced to 2%. But in 2017 there was a huge decline in the trend from 98% to 6%, which means the mining industry is also trying to spend the whole CSR amount for CSR activities because mining industry have more social responsibility than the other industries.

In the case of the non-financial service industry, the average net profit increased gradually by 19%, 31% in 2016 and 2017 respectively from the base period of 2015. In addition, the amount spent on CSR activities is also an increasing trend, but the CSR unspent amount trend in 2016 is almost similar to 2015 and in 2017 it declines to 78%. In the year 2016, even the amount spent on CSR increased by 29% from the previous year 2015, but the unspent amount did not decline from the previous year. The finding reveals that this was due to excessive spending by some companies of more than 2%. But some companies are not even spending the prescribed amount.

Considering all the NSE 200 companies the average net profit increased by 9% in the year 2017 from 2015. Likewise, the amount spent on CSR activities also increased by 36% in the year 2017. As a whole, the unspent amount got reduced to 48%.

Industry-wise analysis

To check the impact of CSR spending on the profitability of the company, we did the industry wise correlation and the regression analysis.

Table no.4: Pooled OLS Regression analysis.

Industries	Variables	Net Profit					
		Coefficient	P-Value	Prob. of F test	R- square	Durbin Watson	-

Banking	Constant	- 320.28	0.593				
	Amount spent on CSR	69.08	0.000	0.000	0.741	2.000	
Financial service	Constant	1011	0.002				
	Amount spent on CSR	23.49	0.000	0.000	0.301	1.897	
Construction	Constant	114.46	0.347				
	Amount spent on CSR	55.64	0.000	0.000	0.945	1.817	
Electricity	Constant	1166.13	0.108				
	Amount spent on CSR	22.83	0.000	0.000	0.609	2.030	
Manufacturing	Constant	537.21	0.001				
	Amount spent on CSR	41.18	0.000	0.000	0.795	2.170	
Mining	Constant	-4144.47	0.096				
	Amount spent on CSR	44.67	0.002	0.002	0.922	1.785	
Non-Financial Services	Constant	148.62	0.713				
	Amount spent on CSR	68.48	0.000	0.000	0.734	2.078	
NSE 200 companies as a whole	Constant	586.54	0.000				
	Amount spent on CSR	40.85	0.000	0.000	0.680	1.921	

Source: Authors Calculation

Table no. 4, above shows the impact of CSR spending on the profitability of the company with the help of regression. From the above Durbin – Watson result we find that there is no problem of serial correlation in the model. Based on F- statistics probability value states that model has a significant model fit. For the Banking industry R- square value of net profit is 74.1%, which means,

74.1 percent of the variation in net profit was explained by CSR spending's. Finally based on the coefficient value we can conclude if banking industry spent one Crore for CSR activities, it leads to increase in net profit of Rs. 69.08 crores in the next year.

The regression result of financial service industry shows that there is a significant positive association between the variables Profit and CSR spending. In this model, 30.1% variation in the net profit is explained by the CSR spending without any serial correlation remaining 69.9 percent variations are explained by some other variables. The financial services industry without the help of CSR spending the companies can able to earn the profit of rupees 1011 crores. In addition, if the company spent one crore rupees in CSR activities, it may able to earn the additional profit of Rs. 23.49 crores in the next year.

The result of the regression model of the construction industry is shown above, the model fit is assessed by the f test probability value, in the model we have a significant probability value $P < 0.01$, which means our model is in a good fit with R square value of 94.5%. Therefore, CSR spending explains 94.5 % variations of Net profit on the construction industry. In addition, Durbin – Watson value in this model is 1.82 it means that there is no serial correlation in the model. If the

Company is willing to spend one crore rupees in CSR activities, the company may get the profit of Rs.55.64 crores in addition profit in the next year.

The table, no. 4 gives the regression results of Electricity industry. The results show that 60.9% of variations in profit is explained by the amount spent on CSR activities. The above regression model is in good fit proven with help of probability value of F-test. Likewise, there is no serious serial correlation in the model proven by the help of Durbin-Watson test. Based on the above model we can predict the net profit-using amount spent on CSR activities with the help of coefficient value. Suppose the company increase one crore rupees in CSR spending in the preceding year, It will rise the net profit of the company by Rs.22.83 crores.

In the above table the result of Manufacturing Industry, we try to check the impact of CSR spending on the profitability of the company with the help of the above model. While checking the model summary we cannot see the serial correlation in the model. Moreover, the independent variable explains 79.5% variation of the dependent variable net profit. The result of the F-test probability explains the model fit, in this model, we have significant probability level in the F-Test, and it states that our model is a good fit. From the coefficient results, shows that if CSR spending increased by one percent it will lead to increase the profit by 41.18 crores in the succeeding year with the constant profit of 328.89 crores.

The regression results of the mining industry shown in the above table, shows that the model is significantly fit, the independent variable explains the variation of the dependent variable by 92.2% without any serial correlation. The constant coefficient states that mining industry has a constant loss over the period with 10 percent significance level and if the mining company is willing to spend one crore rupees in CSR activities the mining company will able to reduce their losses by Rs.44.67 crores in the following year. For example, if the mining industry spends rupees 93 crores in CSR activities it may able to reduce the whole loss and able to earn the profit of Rs.9.84 crores in the next year keeping other factors constant. We can see the result of the regression analysis of the non-financial industry. The net profit and amount spent on CSR spending have the strong significant positive correlation. In addition, the result of regression states that 73.4% of the independent variable explains the variation of the Dependent variable net profit, with the good model fit without any serial correlation. Here, if the CSR value spent is at least one crore it may increase the net profit by 68.48 crores in the succeeding year.

Table no. 4, shows the regression result of NSE 200 companies, the model summary result above shows that model is not having any serial correlation (i.e.) if the value of Durbin – Watson between 1.5 to 2.5 means there is no serial correlation in the model. Likewise, the amount spent on CSR activities explaining 68% variation of the Net profit of the company. If the probability of the F test in the regression model is significant means that model is fit, so the above regression model is a good fitted model. Overall if the NSE 200 companies spends one crore rupees in CSR activities they may get back the profit of Rs. 40.85 crores in the next year. That means if the company is spending one crore, the company may get back the net profit of Rs.627.39 crores in the next year because Rs. 586.54 crores is a constant profit even though the company is not spending any single rupee in CSR activities, company may get the net profit of Rs. 586.54 crores.

Findings & Conclusion

The findings from the studies reveals that CSR spending in the year 2014-15, is contributed more by manufacturing industry i.e. at least 1.83% of average net profit in CSR activities. When we rank based on a percentage of actual CSR spending, we can rank the order like manufacturing, mining, electricity, construction, financial services, and banking industry. As a whole 5896.30 crores of rupees were spent and 2289.37 crores of rupees were unspent and considering the actual percentage of the amount by all industries is 1.52 percent.

In the 2015-16, the actual amount spent on CSR by all the industries is Rs.7396.67 crores and the unspent value is Rs.1501 crores. In this year financial service, electricity and manufacturing industries have spent more than 2% of average net profit. Then industries ranked based on actual CSR spending percentage is electricity, financial service, manufacturing, construction, mining, non-financial service, and banking industry. Cumulatively the spending increased to 1.77%.

In 2016-17, the electricity, mining and manufacturing industries spent more than 2% of average net profit on CSR activities. Based on actual spending percentage we can rank them as electricity, mining, manufacturing, financial services, construction, non-financial services, and banking.

Combining all the industries the actual CSR spent is Rs.7997.99 crores and the unspent part is Rs.1182.64 crores. The CSR spent in this year is 1.88%. In all the three years' percentage of the amount spent by the banking is less when compared with other industries.

Overall spending by NSE 200 companies based on the average net profit of preceding three financial years increased by 9%, the amount spent on CSR activities increased by 36 percent and unspent portion declined by 48 percent from the year 2015 to 2017.

Based on regression model we found that all the industries Net profits had the impact of CSR spending activities. If banking industry tries to increase 1crore rupees in CSR activities, it may help in generating profit of Rs. 69.08 crores in the next year. Likewise, if financial services industry tries to increase 1crore rupees in CSR activities it may lead to a net profit of Rs. 23.49 crores in addition with the constant profit of 1011 crores of the following year. If construction industry is trying to increase 1crore rupees in CSR, activities it may able to generate profit of Rs. 55.64 crores in the next year. Similarly, if electricity industry is trying to increase 1crore rupees in CSR activities it may lead to get back the profit of Rs.22.83 crores succeeding year. Then if the manufacturing industry wants to increase the net profit by Rs.41.18 crores in the next year with the constant profit of Rs. 537.21 crores it will have to spend 1 crore rupees in the CSR activities. In the case of the mining industry, it has constant loss of Rs.4144.47, if the industry spent one crore rupees in CSR activities it may help to reduce the losses by Rs. 44.67 crores subsequent year. If nonfinancial services industry increase Rs.1crore CSR activities in the previous year, it may lead to generate a profit of Rs.68.48 crores.

From the above findings, we concluded that the amount spent on CSR activities have positive impact on the profitability of the companies and industries. The amount spent by NSE 200 companies on CSR activities are in an increasing trend, which is a good sign for the societies, but still, some companies are having unspent amount of 0.5 percent. For which it is important for government to monitor such spending's in order to ensure that they spent the whole 2% of the amount. NSE 200 companies itself spent almost around 8000 crores of rupees in the year 2017 as per their records in annual reports. But it will be good and more promising if the government creates a separate department to collect this amount from overall registered companies and spent in real CSR activities. If combining all the registered companies i.e. 2% profit will be a huge amount which can be spent for the welfare of the society.

References:

1. Bedi, H. S. (2009). Financial performance and social responsibility: Indian scenario. Available at SSRN 1496291.
2. Bolanle, A. B., Adebiyi, S. O., & Muyideen, A. A. (2012). Corporate social responsibility and profitability of Nigeria banks-a causal relationship. Research Journal of Finance and Accounting, 3(1), 6–17.
3. COMMISSION OF THE EUROPEAN COMMUNITIES. (2002), 24.
4. Dr Rajender, K., & Upasana Dhanda. (2017). A Study of CSR Spending Pattern of Sensex Companies In India. International Journal of Current Research, 9, 6.
5. Garai, S. (2017). Impact of corporate social responsibility on firm's financial performance with a special reference of RIL. IJAR, 3(1), 38–41.
6. Hermawan, M., & Mulyawan, S. (2013). Profitability and corporate social responsibility: an analysis of Indonesia's listed company.
7. Kiran, S., Kakakhel, S. J., & Shaheen, F. (2015). Corporate social responsibility and firm profitability: A case of oil and gas sector of Pakistan. City University Research Journal, 5(1), 110– 119.
8. Mahbuba, S., & Farzana, N. (2013). Corporate Social Responsibility and Profitability: A Case Study on Dutch Bangla Bank Ltd. International Journal of Business and Social Research, 3(4), 139–145.
9. Rajnish, Y., & Dr F B, S. (2016). Impact of Corporate Social Responsibility on Financial Performance of Indian Commercial Banks – An Analysis, 2(12), 10.
10. Tripathi, A., & Dr Kirti Agarwal. (2015). Corporate Social Responsibility Impact on the Profitability & Sales of Indian Selected Organizations, 6(1), 12.
11. WBCSD, A. (2000). Eco-efficiency. Creating more value with less impact. World Business Council for Sustainable Development, Geneva, 32.

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