

Analysis of ESG score and Market price in Indian cement industry

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Abstract

In the recent scenario the entire world is directed towards achievement of sustainability and countries are working extremely on framing sustainable policies and practices. The focus of a company now has been changed to ESG and future prospects and market sustainability of firms can be ensured with ESG score. In the past and current scenario, investors were inclined towards the financial performance of the firm and it is expected that the trend will be changed towards ESG which is a non-financial element. In India 75% - 80% of emissions are in the form of CO₂ (carbon emission) and it is estimated that 24% of carbon emission is contributed by the cement industry. Due to this the researcher is interested in analysing the ESG score of the cement industry and its impact on market price. The major aim of this study is to analyse the ESG score obtained by firms from the cement industry in India in the financial year 2022 and analyse how firms ESG score impacts the market price in the stock market. The sample of 18 firms from the cement industry was taken for analysis and was listed in the BSE market. The ESG score and market price of these companies were collected from secondary sources like CRISIL, BSE, published articles, and the companies' annual reports. Collected data were considered for various statistical methods like percentage analysis, mean and standard deviation and correlation to know the impact of the ESG score on market price. Results show that a majority of the firms obtained adequate ESG scores and a positive correlation between ESG scores and market price among cement industries in India.

Keywords: ESG, Business Sustainability, Market Price, BRSR and Stock Market

1. Introduction

In olden times firms were directed towards maximizing their profit, then the thinking was diverted to not only maximizing the profit evenly concentrate on CSR activities i.e., corporate social responsibilities. Now

the importance has been turned into ESG due to global sustainability.

ESG stands Environmental, Social and Governance. Many experts says that only companies can be stay or sustained in the market when they are actively engaged with ESG aspects. Firstly, Environmental

which means companies should protect the environment and their actions should not be harmful to the environment besides they should follow sustainable practices. Secondly Social which focus on maintaining good relationship with employees and other stakeholders like customers, suppliers and shareholders. Initiatives taking by firms for skill development, employee welfare, gender diversity and supply chain management etc are considered for Social dimensions. Thirdly Governance which mainly focus on Board composition, Board independence and board functioning & experience with governing the business.

This study was taken with a view to make an understand with ESG score obtained by firms in cement industry in 2022 and how market share of those companies listed in the BSE and this would help in finding a meaningful conclusion that ESG score is really impact the market price of the company.

1.1 CRISIL & ESG score

In India CRISIL is one of the leading Credit Rating Agency (CRA) who assign ESG score to the firms based on the weight proportion of 35%: 25%: 40%: to Environmental, Social and Governance respectively. CRISIL had followed Firms' assessment framework for ESG scoring with some unique mode under which the final score of E and S assessment is based on combination of both company score and sector score. For instance, E score 35 % can be calculated based on the proportion of 40:60 which means sector score 40 % and company score 60% likewise S score 25% can be obtained with proportion of 75:25 sector score 25% and company score 75% and G score is completely based on company score not on the sector score since it is comparable among its sectors.

Scaling measurement of ESG scoring on the range of 0 to 100 whereas 100 is the highest measurement score. More than 100 parameters were considered for assigning ESG score to various firms by CRISIL and they are not only considered the positive parameters of ESG score and also considered negative parameters in assessment of ESG score, yes assigning negative score to overall company score in ESG assessment in case of company engaging with any controversies, failure to abide compliance with respect to ESG disclosure. Total number of companies in India were assessed by CRISIL in India is 586 of which 518 were listed companies and 68 companies were unlisted companies and total of 53 sectors. This study was taken and data were analysed completely based upon the information and scores released by CRISIL with respect to ESG in 2022.

2. Literature Review

Several studies were conducted by different authors in different periods globally and in the very beginning of introducing the ESG concept many research shows insignificant relationship between ESG disclosure and firms value on the other end some of the studies disclosed positive and significant relationship between ESG and firms value. Sadiq et al., (2020) study shown that value of firms is significantly increasing with ESG strength and quite opposite with ESG concern and ESG disclosure among firms in Malaysia besides it is also proved by Fatemi et al., (2018) study reveals ESG disclosure plays significant role of vindicating adverse impact of weakness. Mohammed et al (2020) Study reveals that firms value is strongly correlated and Environmental disclosure but social disclosure shows the

insignificant even it gains positive relation among 34 companies in Saudi Arabia.

However, the study taken by Haixu Yu et al., (2023) in different perspective in the area of ESG, and it analysed ESG news sentiments on stock crash risk and it impacts the company's performance. Another perspective of study shows Tom Aabo (2023) the impact of gender of the CEO on CSR activities and it was analysed with two different ESG score provider in global level are Refinitiv and Bloomberg. Results found that gender of CEO is not associating with CSR activities through ESG score released by Refinitiv score and it is strongly associating with Bloomberg score. Aboud & Diab (2018) study exhibited that firms return shows negative effect even though companies who recognised with green awards for sustainability. Many studies conducted to understand how financial performance of the companies can be measured or impacted due to non-financial performance measurement like ESG score. Ozparla (2022) study analysed ESG score and firms market price and each score separately analysed and results shows that Environmental score, Governance score and sustainability disclosure were positively associated with firm's market price and adversely affect social score with firm's market price. Junius et al., (2020), proved that firm's performance and market price are not influenced by ESG disclosure since not it is not yet recognized as part of performance evaluation. Another detailed study conducted by Aydoğmuş (2022), Environmental score is not significantly influencing on firm value but Social and Governance score is positively related with firms and this justified the stakeholder's theory which means firms must concern with all kinds of stakeholders to maintain its market price in high level. Haninun et al. (2018) study based on

four theories which are primarily focussed on stakeholders which are stakeholders legitimate, signalling and political and every firm must operate for the best interest of all stakeholders like shareholders, employees, customers, suppliers, competitors and government. Study proved environmental score is positively related with financial performance of the company. In addition, Grey incidence theory applied by Rajesh (2020) in ESG performance analysis among 39 Indian companies who were listed in Thomson & Reuters, Resource use score, environmental innovation score and Corporate social responsibilities strategy score were obtained as most determining indicator in identifying sustainable practice of the firm and shareholders score, management score and human rights score appears to be least determining factors in measuring ESG performance over Indian industry.

2.1 Objectives of the study

Every research has some objective to fulfil and this study was taken with a view to study the ESG score obtained by various firms under cement industry in India further it analyses the relationship between ESG score and market price of the firm. Unlisted companies market performance was not analysed under this part because unlisted companies are not mandatorily disclosing the ESG performance However it is mandatory for listed companies to disclose ESG performance.

3. Research Methodology

This study is completely relied upon secondary data which were mainly collected from online sources like CRISIL websites, BSE websites, research articles, company annual reports etc., besides the researcher need to

proceed further with ESG score and market price. Many firms in global level like Bloomberg, Refinitiv DataStream, FTSE, MSCI and Sustainalytics etc., offering ESG score to the firms, in India the premier credit rating agency CRISIL (Credit Rating Information Services of India Limited) is subsidiary of American company S&P Global released ESG score in 2022 which was considered for further analysis in this study.

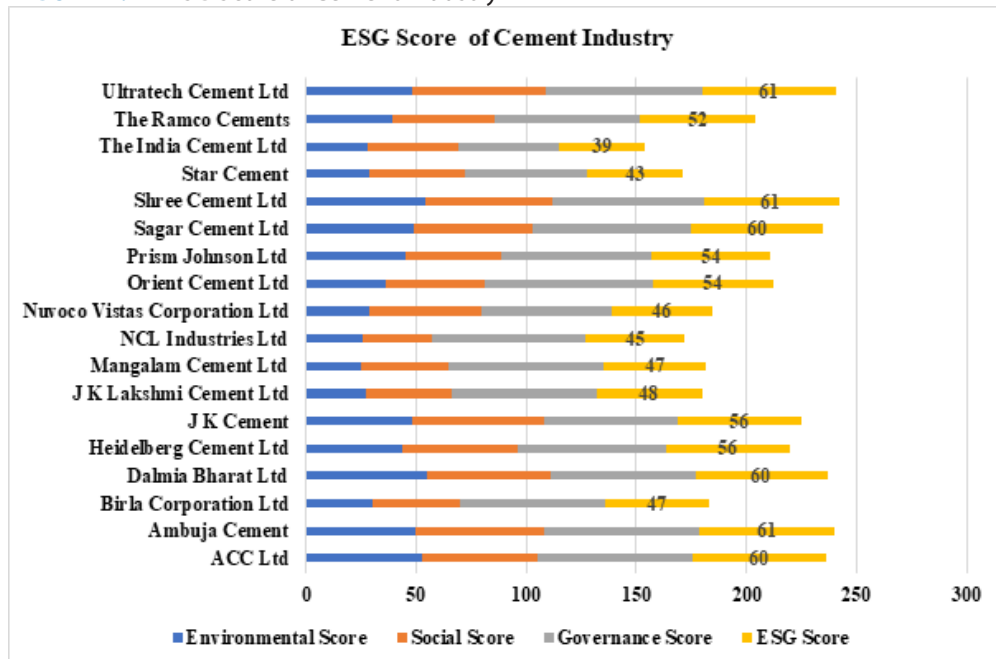
Cement industries are majorly contributed more carbon emission due to clinker manufacturing process in cement plant which ultimately pollute the environment in India and researcher is interested to understand how cement industries are maintaining Environmental score, Social score, Governance score separately and overall ESG score and the next level of finding the relationship between ESG score and Market price.

The total number of cement firms operating in India is 179 but study is confined with 18 listed firms due to availability of ESG from CRISIL report under cement industry and Market price of these firm were calculated (i.e P/E ratio and EPS) from available data in BSE stock exchange and company annual reports. These data were applied through SPSS software for various statistical methods like Descriptive statistics, Correlation, multiple correlation which helped to draw meaning conclusion in this area.

4. Results & Discussion

From the above figure 4.1 it is depicted that the ESG score obtained by 18 companies under the cement industry. Ambuja cement, Shree cement and Ultra tech cement were attained 61 scores out of 100

FIGURE 4.1 ESG Score of Cement industry



Source: CRISIL

Note: 0-30 Weak, 31-45 Below average, 45-60 Adequate, 61-70 Strong, 71-100 Leadership

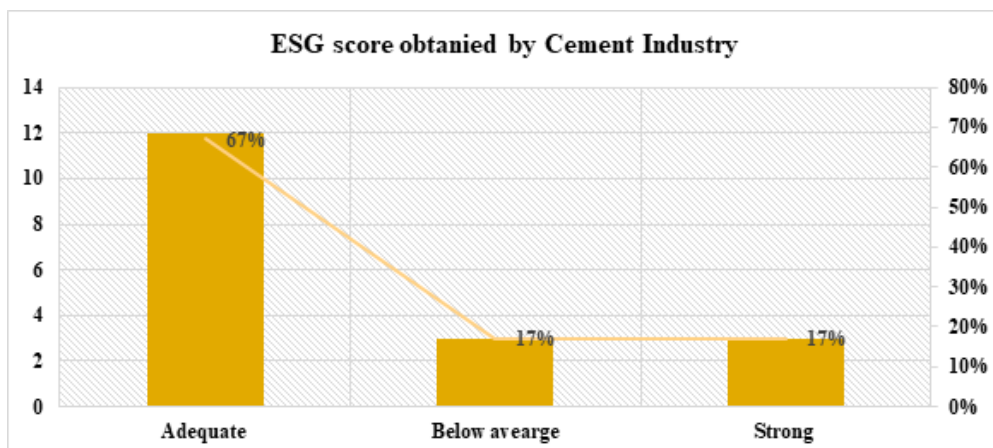
and which indicate they are strong in ESG score released by CRISIL. Followed by ACC Ltd, Dalmia Bharat Ltd, and Sagar cement Ltd were attained 60 scores and falls under Adequate category. India cement and star cement were obtained least ESG score i.e., less than 45 and in the weak score category.

Environmental Score: Dalmia cement is in top level of maintaining E score of 55, followed by Shree cement 54 and ACC cement 53 followed by Ambuja cement, Sagar cement, Ultra tech cement, JK cement, Prism Johnson Ltd were obtained between 45-60 range score which indicates these companies production process maintain adequate level of environmental protection measures. Heidelberg cement Ltd, Ramco cements and orient cement were obtained between 30-45 range score which below average level and least score obtained by Managalum cement, NCL industries, JK lakshmi cement, The India cement, Start cement Nuvoco cement and Birla corporation were between 31-45 score. **Social Score:** Ultra tech cement is strong in S score i.e 61, followed by JK cement has 60 score, Shree cement and Ambuja cement score 58, Dalmia Bharat cement

has 56, Sagar cement has 54, ACC Ltd and Heidelberg cement has 52, and Nuvoco vistantas has 51 S score, The Ramco cement has 47 and orient cement has 45 Score besides these companies maintained adequate level of S score between 45- 60 range and Prism Johnson, Star cement, The India cement, Mangalam cement, Birla corporation, JK cement and NCL Industries Ltd obtained below average level of S Score between 31-45. **Governance Score:** Orient company is maintaining top level Governance score of 77, followed by Sagar cement G score 72 and ACC cement, Ambuja cement and Ultratech cement were maintained G score level of 71 and they are Leadership in G score, followed by Mangalam cement and NCL industries has 70 S score and these firms are strong in G disclosure. Shree cement has 69, Prism Johnson cement has 68, Heidelberg cement has 68, Birla corporation has 66, Dalmia Bharat, J K Lakshmi cement and Ramco cement has obtained 66. Rest of the firms were maintained adequate level of G score and no firm lies below average level.

From the above figure, it disclosed that 67% of the firms under cement industry

FIGURE 4.2 ESG score obtained by Cement Industry



Source: CRISIL

Note: 0-30 Weak, 31-45 Below average, 45-60 Adequate, 61-70 Strong, 71-100 Leadership

were maintained adequate score level between 45-60 and evenly 17% of companies were maintained below average between 31-45 score and strong category between 61-70 score.

Descriptive Statistics of Cement Industry ESG

| | Mean | Std. Deviation | N |
|----------------------------|---------|----------------|----|
| Cement Environmental Score | 39.7222 | 10.93190 | 18 |
| Cement Social Score | 48.4444 | 8.56959 | 18 |
| Cement Governance Score | 66.2778 | 7.08607 | 18 |
| Cement ESG Score | 52.7778 | 7.13364 | 18 |

From the above descriptive statistics results, it is depicted that Governance score has the highest mean value of 66.2778 under cement industry, followed by Social score has mean value of 48.4444 and Environmental score has lowest mean value of 39.7222 and overall ESG mean value is 52.7778. it can be concluded that environmental score is less among other scores like social and governance score in cement industry and it can be justified that

Correlation between Cement industry ESG score and current market price.

Correlation

| | | Cement Overall ESG Score | Cement Market Price |
|--------------------------|-------------------------------------|--------------------------|---------------------|
| Cement Overall ESG Score | Pearson Correlation Sig. (2-tailed) | 1 | .549* |
| Cement Market Price | Pearson Correlation Sig. (2-tailed) | .549* | 1 |

*. Correlation is significant at the 0.05 level (2-tailed).
b. Listwise N=18

carbon emission impact the cement industries environmental score than all other dimensions.

Correlation Analysis Descriptive Statistics

| | Mean | Std. Deviation | N |
|--------------------------|-----------|----------------|----|
| Cement Overall ESG Score | 3.0000 | .59409 | 18 |
| Cement Market Price | 2571.7992 | 6105.50637 | 18 |

Correlations^b

| | | Cement Environmental Score | Cement Social Score | Cement Governance Score | Cement ESG Score |
|----------------------------|---------------------|----------------------------|---------------------|-------------------------|------------------|
| Cement Environmental Score | Pearson Correlation | 1 | | | |
| Cement Social Score | Pearson Correlation | .840** | 1 | | |
| Cement Governance Score | Pearson Correlation | .378 | .169 | 1 | |
| Cement ESG Score | Pearson Correlation | .931** | .806** | .651** | 1 |

** . Correlation is significant at the 0.01 level (2-tailed).
b. Listwise N=18

From the above results, the correlation co-efficient between ESG score obtained by cement industry and its market price is 0.549 which means 54.9% the ESG score is positively correlated with market price at 5% level of significance and it can be understood that high in ESG score have high value of market price in the stock market. This can be understood that investors are slowly getting aware of the companies ESG performance, on the other side it can be noted that ESG performance is becoming a key indicator in predicting the future prospects of the company.

From the above multiple correlation, the correlation co-efficient between Environmental score, Social score and Governance score with overall ESG score obtained by cement industries. It can be understood that environmental score is highly correlated with ESG score and co-efficient correlation is 0.931 which indicates 93.1% E score is correlated with ESG score at 5% level of significance, followed by 0.806 positive correlation co-efficient between Social score and ESG score which means 80.6% S score is positively correlated with ESG score at 5% level of significance and correlation co-efficient between Governance score with ESG score is 0.651 which indicates 65.1% G score is correlated with ESG score at 5% level of significance.

5. Findings

This study is engaged with detailed analysis of Environmental score, Social score and Governance score obtained by 18 firms from cement industry those were listed in BSE market and study ignore the measurement of unlisted companies ESG score and its market price because unlisted companies are not mandatory to disclose ESG factors. In overall Governance score and

social score are high when comparing with Environmental Score in cement industry.

Ambuja cement, Shree cement and Ultra tech cement were top ESG rated firms in cement industry and they are strong in ESG score, 67% of the firms were maintained adequate range of ESG score which lies between 45-60 score, Dalmia cement is in top level of maintaining E score of 55, followed by Shree cement 54 and ACC cement 53. Ultra tech cement has obtained highest Social score of 61 and Orient cement has maintained highest G score of 77.

Further study shows that Governance score has the highest mean value and Environmental score has lowest mean value. ESG score is positively correlated with market price at 5% level of significance, Environmental score is highly correlated with ESG score and Governance score is less correlated with ESG score.

6. Suggestions

In overall the mean value of Environmental score is less than the mean value of Social score and Governance score besides it is more proved with correlation analysis that Environmental score is highly correlated with the overall ESG score Hence, Low E score obtained firms ESG score are also in low level and vice versa further firms ESG score is positively impact on market price.

Hence this is the time for the cement industry needs to take some necessary measures to prioritize for environmental aspects. It can be suggested to adopt solar and wind power generation techniques accompanied with WHRS (Waste Heat Recovery System) in their production process would reduce industry emission especially particularly from cement industry sector. Investors in India are now becoming

aware of the firms ESG performance and their attitude is changing towards watching non-financial performance of the company rather than focussing only on financial performance. Therefore, movement of market price is also based on investors attitude and industry would be in serious when it is not taking it in right time.

7. Conclusion

After the detailed study made by the researcher in analysing ESG performance and market price it is concluded that when world is moving forward for sustainability and policies are framing global and country level. In the environmental aspects, it has been observed that Most of the cement plant built in India by European OEMs (Original Equipment Machinery) and recently European unions agree go green or zero emission policies and this really impacting among Indian cement industry because in India majority of the cement industries suppliers are European companies. When the force getting from global and country level in maintaining ESG, no industrial is exceptional one in maintaining ESG including cement industries in India. In Social aspects few companies were lies below average category and rest of the firms S score are maintained adequate and strong level. In Governance aspects, no companies G score is lies below average level further it is justified that Corporate Governance is already implemented and asper Clause 49, firms are updating Governance aspects regularly in the interest of all stakeholders. Overall, it is concluded that ESG score is correlated with market price of the firm and act as a key indicator in determining the future sustainability in the market.

Problem is always a problem until it is not being solved and sustainable achievement

is not a problem rather the area in which the focus to be given which is always right for betterment of everyone in the society.

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