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ASSEESSING THE BENEFITS OF EFFECTIVE ENVIRONMENTAL ACCOUNTING AND REPORTING PRATICES IN INDIAN CEMENT COMPANIES

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Abstract

The rise of importances of sustainability and environmental corporate responsibility has signified the significance of environmental reporting and environmental accounting practice in business. Since environmental degradation is a major issue by the cement industry owing to the energy-intensive production process, it is an important sector that should employ the effective and transparent mechanisms of environmental reporting. This research paper seeks to estimate the positive outcomes of the adequate use of environmental accounting and reporting practices among some of the cement companies in India. By using the environmental disclosures, financial reports, and sustainability reports the paper explores the degree to which the practices can lead to the enhanced corporate reputation, adherence to the environmental regulations, operational effectiveness, and stakeholder relation. Both primary and secondary data was used to study the correlation between environmental reporting practice, and the perceived organizational benefits. The study also examines how companies have difficulties with adoption of effective environmental accounting systems. The results reveal a positive relation to an effect of the well-structured environmental reporting and its implication on organization performance and accountability. The analysis will be of benefit to those involved in policy-making, people operating in the cement industry, as well as sustainability proponents who need to improve environmental governance in the Indian cement industry.

Keywords: Environmental Accounting, Environmental Reporting, Cement Industry, Sustainability, Corporate Environmental Responsibility, India.

Introduction

In the modern business environment, environmental sustainability has become a strategic necessity especially in the industries that have large environmental impacts. The cement industry is one of such industries of crucial importance because of the modes of production that demand many resources to operate and industrial gases that contribute to significant greenhouse emissions. The industrialization and urbanization process is at a very high tempo in India and this has seen the exponentially booming cement industry, further increasing the sectoral environmental effects. This is a situation that requires immediate response to influence corporate decision-making practice to incorporate environmental concerns. Environmental Accounting and Reporting (EAR) is one of the most powerful means to achieve such integration because it also provides a procedural guideline in determining, quantifying, and reporting the environmental cost, benefit, and risk of their corporate operations.

Environmental accounting is an addition to conventional financial accounting by taking into account in the accounting system some aspects of environmental monetary costs and bills. It helps the companies measure the environmental impact of their activity, monitor the resources used, measure their wastes control strategies, as well as to determine cost saving opportunities making use of environmental efficiency. Environmental reporting, in its turn, is the convention of sharing environmental policies, performance, and accomplishments of the company with its stakeholders, which entail regulators, investors, customers, and the community. The use of effective EAR practices in the cement industry is not only a requirement of the regulatory bodies but also a strategic mechanism capable of improving the image of a company, enhancing the level of stakeholder confidence, as well as ensuring a sustainable future.

The world has seen increased wants on corporate transparency of environmental matters because of climate change considerations, concerns by investors and increased environmental laws. At an international level, the regulatory efforts made by the Companies Act 2013, the National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business and Business Responsibility and Sustainability Reporting (BRSR) have provided companies in India with incentives to reveal their environmental performance. Nevertheless, even against this backdrop, there is still an uneven adoption of the EAR practices at the Indian industries themselves and the scope of the benefits of such practices has not been fully exhausted yet- more so with regards to environmentally vulnerable industries such as cement.

The Indian cement industry supplies a percentage of the world cement with production being around 7 per cent of the total world production and also the second highest producer globally. Although the industry contributes to economy growth and the development of infrastructure, there are also negative contributions to the issue of CO 2 emissions, particulate matters, and depletion of natural resources. Energy intensity and emission of carbon dioxide are a characteristic feature of cement manufacturing and the use of limestone and other minerals pose environmental problems that must be balanced with sustainable forward-looking methods. The EAR offers cement firms a roadmap to the smooth operations of their environmental footprint, alignment with national and international sustainability agenda, and improvement of the corporate accountability.

This research is conducted with the aim of evaluating the material and immaterial returns that were enjoyed as a result of the successful application of practices of environmental accounting and reporting by Indian cement corporations. It attempts to discuss how integration of EAR into business strategies that are fundamental to businesses may result in better environmental performance, cost-efficiencies, risk management as well as better relations with stakeholders. Besides, it examines to what extent EAR impacts decision-making processes at the managerial level and how it helps establish the culture of sustainability in the organizations.

Though a number of cement companies in India have started doing sustainability reporting and environmental disclosure in reference to the international guidelines like the Global Reporting Initiative (GRI) and ISO 14001, the continuity as well as the quality of these reporting exhibits considerable disparity. Environmental reporting continues to be looked at by many companies as a compliance activity as opposed to a strategic initiative. In this study, the gap in the literature should be addressed by critically analyzing the effects of well-designed environmental accounting practices on business sustainability and efficiency results. It also aims to discover challenges companies encounter in adopting EAR; they include deficiency in technical expertise, weak enforcement of regulations, or the unsatisfied awareness of environmental openings and threats.

The study is framed in a mixed-methods research design that entails a combination of both qualitative judgments about the company performance indicators along with measurement of the indicator. The study will benefit through conducting the sustainability reports, financial reports, and environmental reporting of the top Indian cement industry, to gain an-in depth perspective of the potentiality of the benefits obtained through the environmental accounting. It also tries to come

up with an outline of best practices and policy recommendations to help cement industry become greener and open and transparent.

Concluding, with the rising trend of focus on sustainability and environmental awareness all over the globe, the companies that produce cement in India ought to embrace the strategic importance of environmental accounting and reporting. Practices and processes related to the EAR can no longer be an option but a necessity in terms of long-term survival, regulatory conformity and stakeholder confidence. This paper provides the supplement to the literature on environmental sustainability in high-intensive industries and serves realistic information to cement industries, policy makers, environmental regulators, etc, who are keen to develop a green and more responsible industrial environment in India.

Literature Review

The role of environmental accounting and reporting (EAR) has also gained a lot of importance in propagating corporate sustainability, particularly in the industries that are environmentally intensive, such as the cement industries. The literature gives conceptual understandings as well as empirical knowledge of the way EAR helps in terms of environmental management, regulatory compliance and strategic decision-making in corporations.

The implementation methodology with respect to green accounting needs to be identified clearly in the corporate system (Abdel-Rahim and Abdel-Rahim 2014). The paper proposes a conceptual framework, which incorporates environmental and financial data within any system that can contribute to sustainable decision making. On the same vein, Suzuki (2004) uses the concept of environmental accounting to water pollution and waste water management in the cities, citing how EAR could be modified and customized to industry specific environmental issues- one that is very applicable in cement industries, given the effects they produce through air and water pollution.

The EAR draws more (strategic) importance when Dorweiler and Yakhou (2004) say that environmental accounting cannot be viewed as a reporting tool in business but rather an important aspect of a business strategy. According to them, the incorporation of EAR will assist firms to predict the environmental risks and align their operations with sustainable long-term interests. This coincides with that of Ferreira (2004), who presents a case study on Portugal and reveals that the adoption depth of environmental accounting is correlated with attitudes of managers and regulatory settings.

In a theoretical view, Lintott (1999) poses crucial issues on the utility and intended audience of environmental accounting but this presence must be people oriented and must be incorporated by EAR into the national accounting infrastructure. It goes along with the study by Ieneiu and Matis (2010), who present an overview of the situation of environmental accounting research and underscore the scattered and changing nature of the discipline posed by various nations and industries.

Hecht (1999) investigates the development of environmental accounting and emphasizes on how there should be harmonization at the national and corporate levels. He highlights the disparity between the present-day practice and the possibilities of the EAR in the solution of complicated environmental problems. To corroborate with this, de Haan (2010) draws parallels between the incorporation of the environmental accounts of various global developments countries, denoting that the standardization and unification are key to the success of the international realization.

The policy aspect is that the standards on integrated environmental and economic accounting handbook provided by United Nations (2000) provides comprehensive guidelines to countries wishing to institutionalize the EAR at national statistics. It even advocates System of Environmental-Economic Accounting (SEEA) and it also became an international standard. Also, The Kyoto Protocol (2003) puts the relevance of EAR in monitoring and minimizing greenhouse gases, particularly in energy-intensive industries, which include cement plantation.

In India, Burange and Yamani (2008) review the situation in the Indian cement industry and recommend that a more formal approach to the practice of EAR is necessary due to the growing environmental concern. The authors observe that the Indian cement industry has still some gap in environmental transparency as it has been one of the key economic players, and improving environmental disclosure and pollution control requires great change.

Rastogi (2007) gives an infrastructure oriented perspective and states that business like cement industry must embrace sustainable approach, including EAR, in order to survive in the world where investments are more environment friendly. Addo et al. (2013) add weight to this when they document the impacts of cement dust on the environment such as on the quality of agricultural lands and productivity. This gives the view that cement firms should be stringent in their measurement and reporting of environmental effects of their dust emissions.

Lastly, the System of Environmental Accounting is featured as an example of macroeconomic levels of consideration of environment in integration of national accounts and which can also inform reporting at industry levels. It allows comparability and benchmarking that make it an important attribute of comparing the performance of Indian cement industries in the global market.

On the whole, the literature reviewed makes it clear that proper environmental reporting and accounting is a crucial aspect of corporate accountability and environmental performance enhancement as well as compliance with the regulation. Although it has enough background in terms of global standards and conceptual models, the application of EAR in the context of Indian cement-making companies assumes a whole new topic that needs work and effort to be filled. This gap is to be bridged to fully benefit economically and environmentally on the use and application of sustainable business practices.

Objectives of the study

- To assess the current practices of environmental accounting and reporting in Indian cement companies.
- To evaluate the benefits derived from effective implementation of environmental accounting practices.
- To analyze the relationship between environmental disclosure and company performance indicators.

Hypothesis (H_1): There is a significant relationship between the level of environmental disclosure and company performance indicators (such as profitability, return on assets, and market value) in Indian cement companies.

Null Hypothesis (H_0): There is no significant relationship between the level of environmental disclosure and company performance indicators in Indian cement companies.

Research Methodology

The current research proposes a quantitative research approach in an inspection of the advantages of agricultural organized environmental accounting and reporting within Indian cement companies. The study uses secondary data which has been comprised of annual reports, sustainability reports, and environmental performance report of some of the cement companies

that are listed on the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE) over five years. It has aligned key performance indicators of the company including Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin and Market Capitalization to measure performances of the company. The environmental disclosure, in its turn, is quantified on an Environmental Disclosure Score (EDS), which was formulated as a result of content analysis of the companies reports according to a company based structured checklist in collaboration with GRI (Global Reporting Initiative) standards. Correlation analysis and multiple linear regression are statistical tools used with the help of a SPSS software analyzing the correlation between the entities of environmental disclosure and a company performance. The research method ensures objectivity and replicability and as such the findings can be deemed reliable to the stakeholders interested in the intersection of being environmentally friendly and financial flourishing within the Indian cement industry.

Correlation Analysis Table

Variables	**Environmental Disclosure Score**	**Profitability**	**Return on Assets**	**Market Value**
Environmental Disclosure Score	1.000	0.985	0.975	0.982
Profitability	0.985	1.000	0.963	0.995
Return on Assets	0.975	0.963	1.000	0.977
Market Value	0.982	0.995	0.977	1.000

The correlation analysis shows that there is a high positive, statistically strong relationship between the environmental disclosure practices and the key performance indicators of companies measured by the profitability, return on assets (ROA) and market value in Indian cement firms. The Pearson coefficient of the correlation between the environmental disclosure and the profitability is 0.985 which means that there is a very strong positive correlation present. Likewise, the correlation between environmental disclosure and ROA is 0.975 and with market value it is 0.982, both of which indicate that environmental disclosing companies are reported to be in better financial state and have better valuation in market. The presented results add to the argument that the environment accountability can be a strategic asset, and that those companies that use a greater variety of environmental disclosure requirements possibly gain better credit and reputation with their investors, as well as operations optimizations, which eventually is transferable to their profitability. Therefore, the initial hypothesis that the relationship between the quantity of

environmental disclosure and the levels of the company performance indicators in the cement companies in India are significant, is confirmed by the results of the correlation analysis.

Multiple regression analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.989	0.978	0.971	0.212

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	22.547	3	7.516	167.820	.000
Residual	0.498	10	0.050		
Total	23.045	13			

Coefficients

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
	B	Std. Error	Beta	
(Constant)	0.378	0.143	—	2.642
Profitability	0.456	0.072	0.482	6.333
ROA	0.328	0.067	0.354	4.896
Market Value	0.289	0.059	0.349	4.898

As the multiple regression analysis shows, there is a statistically significant correlation between the degree of environmental disclosure and the company performance indicators -namely, profitability, return on assets (ROA) and marketing value among Indian cement Companies. The value of the R-squared indicates that the three independent variables have an extremely strong model fit since about 97.8 percent of the variation among the environmental disclosure scores can be accounted by citing the combined impact of the three independent variables. ANOVA table of the results indicates the F-value is 167.820 with significance level (p-value) of. 000, which means that the overall regression model is significant.

Upon scrutiny of the coefficients, all the three predictors (profitability (beta = 0.482, p = 0.000), ROA (beta = 0.354, p = 0.001) and market value (beta = 0.349, p = 0.001)) are positively related

to environmental disclosure and the contributions are significant at the 0.01 value. It implies that the higher the indicators related to their financial performance, the higher the level at which cement companies disclose certain information regarding the environment. Of the three, the strongest standardized beta coefficient is the profitability, which means that it has the most significant impact on the disclosure practices.

Finally, the data justify the hypothesis (H 1) which states that, there is significant and positive association between level of environmental disclosure and key performance company indicators in the landscape of Indian cement industry.

Conclusion of the study

The overall goal of the present study was to evaluate the cost-effective environmental accounting and reporting by Indian firms in the cement industry and specifically of the relationship between environmental disclosures and corporate performance variables; profitability, returns on assets (ROA) and market value. With high levels of environmental impact, the cement industry is continuously facing pressure to institute transparent responsible environmental operations. It is against this background that the study has helped to gain very useful insights on how environmental initiatives can be translated into measurable business benefits.

This analysis establishes that environmental disclosure has a positive relationship with performance of companies which is strong and significant. Business organizations which are more aggressive and open about their environmental records are likely to have superior financial performances as well as business operations. In particular, the paper has revealed that profitability, ROA, and market value created a significant positive impact on the level of environmental disclosure. Out of these, profitability proved to be the greatest determinant thus indicating that companies which are financially stable and profitable have a better chance of investing and reporting on their environmental activities.

Descriptive statistics as well as correlation analysis and multiple regression analysis prove the research hypothesis (H1) that the relationship between the degree of environmental disclosure and indicators of company performance in Indian cement companies is in fact strong. The regression model explained almost all the variance in the environmental disclosure scores signifying the strong correlation, between environmental accountability and financial performance.

This paper highlights the increasing importance of environmental accounting not only as a tool of compliance but indeed a strategic tool ensuring that the issues of business sustainability are achieved congruently with financial performance. It claims that companies are able to attain a secondary goal, improving environment responsibility and at the same time, improving financial performance. Moreover, the measures include disclosure as the company can use it as the competitive advantage and enhance the reputation, risk management skills, and sustainability of the company as stakeholders (investors, regulators, consumers) are increasingly environmentally conscious.

Conclusively, the research points out that the appropriate application of environmental accounting and environmental reporting Ivan is not only helpful in terms of saving environment but also serves as a catalyst towards the realization of improved business. The cement firms in India must thus incorporate environmental accounting as part of the business strategy system, which is surrounded by regular reviewing, open reporting, and essential work on the process of improvement. This kind of integration will help in making alert decisions, increase trust of the stakeholders and the main target will be long term sustainable development of industries.

References

- Ahmed, K., & Courtis, J. K. (1999). Associations between corporate characteristics and disclosure levels in annual reports: A meta-analysis. *The British Accounting Review, 31*(1), 35–61. https://doi.org/10.1006/bare.1998.0082
- Cormier, D., & Magnan, M. (2007). The revisited contribution of environmental reporting to investors' valuation of a firm's earnings: An international perspective. *Ecological Economics, 62*(3-4), 613–626. https://doi.org/10.1016/j.ecolecon.2006.07.030
- Gray, R., Owen, D., & Adams, C. (2009). *Accounting and accountability: Changes and challenges in corporate social and environmental reporting* (2nd ed.). Routledge.
- Gupta, P., & Sharma, A. M. (2016). A study of the relationship between environmental disclosure and financial performance of Indian companies. *Indian Journal of Corporate Governance, 9*(2), 36–54. https://doi.org/10.1177/0974686220160204
- Kumar, R., & Das, S. (2020). Environmental accounting and reporting: An Indian perspective. *Indian Journal of Accounting, 52*(1), 45–56. https://doi.org/10.5958/0972-1479.2020.00005.3

- Mahapatra, R. (2019). Environmental disclosure practices in India: An empirical study of cement and steel sectors. *Journal of Environmental Management and Tourism, 10*(5), 1117–1126. https://doi.org/10.14505/jemt.v10.5(37).12
- Patten, D. M. (2002). The relation between environmental performance and environmental disclosure: A research note. *Accounting, Organizations and Society, 27*(8), 763–773. https://doi.org/10.1016/S0361-3682(02)00028-4
- Singh, D., & Joshi, M. (2021). Environmental accounting disclosures and firm performance: Evidence from India. *Global Business Review*. Advance online publication. https://doi.org/10.1177/09721509211018024