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Toward a Sustainable Cement Industry

Substudy 3: Business Case Development

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Executive Summary

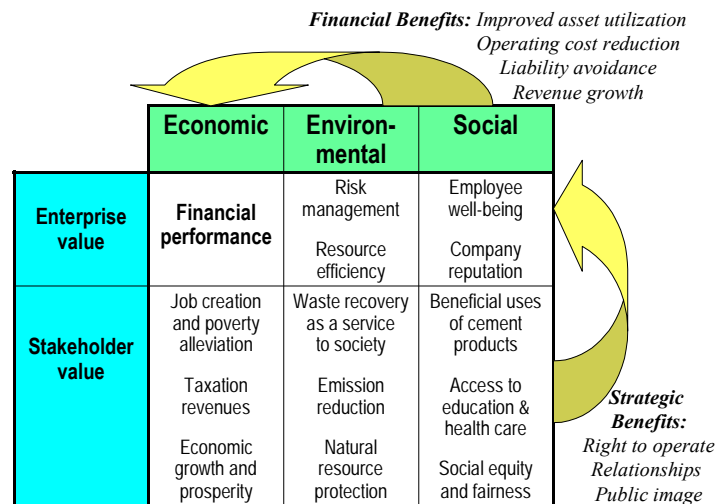
The purpose of this substudy is to help cement industry decision-makers contribute to sustainable development (SD) in ways that increase shareholder value. For cement companies to operate successfully in the future, they will need to augment traditional financial performance criteria with an understanding of *stakeholder value*, including environmental and social performance. While these performance dimensions may be more challenging to quantify, they can significantly influence profitability and growth. For example, investment in thermal efficiency at a cement plant will not only reduce the facility’s energy costs and global warming emissions, but may also result in reduced maintenance costs, reduced downtime, enhanced worker productivity, improved regulatory relationships, and improved “right to operate.”

To integrate SD considerations into cement company decision-making methods, new tools will be required. While a general “business case” can be made for SD at a company-wide level, it is more challenging to systematically include an assessment of direct and indirect SD-related costs and benefits into the rationale for specific, day-to-day business decisions. Battelle conducted a worldwide survey of best practices in cement and other industries, and found that there is a widespread need for a decision framework to explicitly account for SD benefits. Even among leading companies that have adopted SD principles, integration of SD into business case development and decision-making is still embryonic.

Accordingly, we have developed a Sustainable Business Decision Framework to help cement companies systematically capture and analyze the SD implications of capital investments or other important decisions. The framework is intended to identify explicitly the linkages between SD achievements and the company’s ability to reduce costs, increase profits, and build competitive advantage. Thus it enables companies to integrate SD into both strategic and tactical decisions, and to make informed judgments about trade-offs between financial gains and longer-term concerns such as company image and future barriers to growth. It also enables companies that deliberately engage in SD improvement initiatives to assure that they will deliver maximum benefits in terms of enterprise value.

The framework consists of a value matrix and an eight-step business case development methodology, described in a concise user manual that accompanies this substudy report. It supports the assessment of stakeholder value – both enterprise value for the company and value for external stakeholders such as local community residents, government agencies, and public interest groups.

Thus, it encourages decision-makers to move beyond conventional financial analysis to consider SD consequences and trade-offs (e.g., waste fuel use is beneficial for resource recovery, but may create stakeholder concerns about toxic emissions). Creating value for external stakeholders can provide **strategic benefits** to the enterprise, and improving environmental and social performance can provide **financial benefits** to the enterprise. Some of these linkages may be quantifiable, while others may be expressed qualitatively, but the framework integrates all of this information into a comprehensive “business logic” to support a given decision.



The framework was developed specifically for the cement industry, and includes consideration of SD impacts across the operating life cycle, from site development to cement production to plant closure and quarry rehabilitation. It was designed to mesh with existing cement industry decision processes and tools, and can be customized to the needs of individual companies. It is intended for use in either of two ways:

- From a *top-down* perspective, it can be used by senior management to help establish broad objectives and decision guidelines that consider SD (e.g., guidelines for stakeholder inputs to site selection).
- From a *bottom-up* perspective, it provides a tool for decision-makers to include SD considerations when they evaluate specific business opportunities, and to develop a logical rationale, or “business case” for the preferred decision. Tracking the consequences of such decisions will enable management to refine their objectives and priorities over time.

Use of the framework will encourage integrated thinking among different functional groups regarding SD issues and trade-offs. In addition, the framework can serve as a means for conducting a structured dialogue with external stakeholders about their concerns, and for communicating the resulting business case to the affected community as well as to employees, shareholders, and financial analysts.

In order to validate the usefulness of the framework, several retrospective applications were conducted in collaboration with sponsoring cement companies, who selected the following specific decisions:

CEMEX Torreon Plant, Torreon, Mexico	Decision to invest in process modification in order to switch a cement kiln to the use of Petcoke as an alternative fuel.
Holcim Artesia Plant, Missouri, USA	Decision to proactively engage with stakeholders and address community concerns during the pursuit of a new permit that would allow the use of hazardous waste fuels.
Italcementi (Cementos Rezola) Arrigoriaga Plant, Bilbao, Spain	Decision to invest in a clinker storage facility in order to mitigate the excessive environmental emissions, involving selection among competing alternative approaches.

In each case, the framework was readily customized to address the particular decision, and enabled the integration of financial analysis results with environmental and social considerations. Feedback from the cement companies indicates that the framework could be readily incorporated into their existing decision processes and would add significant value. In several cases, consideration of SD issues resulted in quantification of hidden costs and benefits that might have led to better decisions.

For companies to implement the framework effectively, there needs to be a commitment by senior management to integrate SD into company business practices. Initial applications of the framework can help build internal alignment regarding the linkage between SD and the business strategies and goals of the company. To assure continuous improvement, use of the framework should be accompanied by the establishment of key performance indicators to monitor the critical outcomes. In the long run, systematic use of this type of framework will help to assure both SD improvement and profitable growth.

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