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Cleaner production, project management and Strategic Drivers: An empirical study

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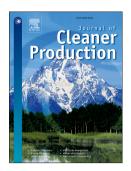
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# Cleaner Production, Project Management and Strategic Drivers: An Empirical Study

#### Abstract

Cleaner Production is an important means for systematically reducing waste. For its successful implementation, it is essential to ensure the effectiveness of the factors that can influence this process, such as the identification of decision criteria and an effective methodology for managing projects and implementing strategies to reach expected results. Based on the relevance of these themes, this research aims to measure relationships and correlations between constructs such as Strategic Drivers, Project Management Maturity and Cleaner Production Success, considering the moderating effect of business size. A survey of 238 manufacturing companies was used to test this hypothesis. For data analysis and interpretation, we used Structural Equation Modeling, which was implemented using a descriptive research method. Survey results show relationship strengths and correlations among the constructs, contributing to Cleaner Production research and allowing managers to make more assertive decisions. As a main result, this research points to the conclusion that there is a close relationship among Strategic Drivers, the Project Management Maturity construct, and Cleaner Production Success, as applied to the context of Brazilian industries.

**Keywords**: Cleaner production, Project management, Productivity and competitiveness, Brazil, Structural equation modeling.

#### 1. Introduction

Cleaner Production (CP) has been an important mean of systematically motivating waste reduction and product reuse. CP is achieved by reducing production and use of material resources; reducing waste and pollutant emissions; and developing products that can easily go through recycling processes.

Historically because the early 1990s, one important issue that managers have needed to consider is the search for organizational performance improvements that focus on sustainability focus. The challenge consists in minimizing environmental impacts while maintaining market competitiveness. The use of environmental practices is an excellent way to achieve these goals. Among the alternatives are CP methodologies that integrate technological, economic and environmental strategies into processes or products to increase the efficiency of input and raw material usage by reducing waste, minimizing or recycling generated waste, and providing economic and environmental benefits for organizations (Porter and Van Der Linde, 1995; Guimarães et al., 2013).

Unlike conventional environmental technologies that focus on "pipe end" strategies, CP aims to integrate environmental objectives with industrial production processes to reduce waste and emissions. Considering specific environments, CP contributes to the reduction of waste and toxic gas emissions, the optimization of water and energy use, as well as improvements in the safety and health of employees. CP

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