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Putting environmental technologies into the mainstream: Adoption of environmental technologies by medium-sized manufacturing firms in Brazil

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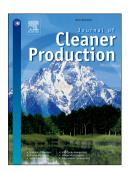
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#### ACCEPTED MANUSCRIPT

Putting environmental technologies into the mainstream: adoption of environmental technologies by medium-sized manufacturing firms in Brazil

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#### **Abstract**

The aim of this research is to analyze how critical success factors (CSFs) can influence the adoption of environmental technologies by Brazilian manufacturing companies. In terms of conceptual background, this research fits within the context of environmental management in corporate organizations, focusing on the adoption of environmental technologies in the manufacturing context and their critical success factors. In terms of methodology, this research is based on a case study conducted on two medium-sized industrial companies located in Brazil (company "Alfa" and company "Beta"). The results show the emergence of a new CSF called employee empowerment, which derives from learning and benchmarking initiatives. Two CSFs can be highlighted as the most relevant and unanimously present in both company "Alpha" and company "Beta": support from senior management and employee empowerment through learning and benchmarking. In addition, communication and cultural organizational changes were relevant CSFs, especially for Beta. Furthermore, there is a potential synergistic relationship between CSFs and the maturity level of environmental management. For example, Beta was positioned on a more advanced environmental level as well as had greater intensity in terms of CSFs than Alpha. This work can be considered one of the first researches relating CSFs and the adoption of environmental technologies in medium-sized firms in Brazil.

Keywords: environmental technologies; critical success factors; sustainable operations; sustainability; small and medium enterprises.

#### 1. Introduction

Given the importance of environmental constraints challenging society (Hackmann et al. 2014), it is important that manufacturing companies innovate and modify their management toward greener manufacturing, as

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