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SUSTAINABILITY AND INNOVATION IN THE BRAZILIAN SUPPLY CHAIN OF GREEN PLASTIC BASED ON RENEWABLE RESOURCE (ETHANOL FROM SUGARCANE)

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The objective was the analysis of how the innovation process occurs in the Brazilian green plastic supply chain, by replacing a non-renewable resource (naphtha) for a renewable one (ethanol from sugarcane), focusing the focal organizational, considering the sustainability perspective. The work involved a qualitative research, exploratory and descriptive case study. It was thirteen interviews considering Braskem as the focal organization. It was used the diamond of the total innovation for analysis. In the results, the characteristics of green plastic extrapolate the nature of technological innovation. The sustainability of the product is linked to the use of renewable input (ethanol from sugar cane), highlighting the fact that the carbon dioxide is captured from the atmosphere over the cultivation of sugarcane, remaining fixed during the life cycle of the product. In reality, it was a substitution of a non-renewable resource (naphtha) by an entire Brazilian sugarcane supply chain. The biopolymers development is justified by the oil finiteness and its aggravating the greenhouse gas emissions. This development was possible due to climate advantages obtained by the production of sugarcane and the amount of available land for cultivation in Brazil. The focal

organization was able to induce innovation in their entire supply chains, determining which upstream and downstream effects to offer the green plastic innovation for users. The capture of carbon dioxide led to reduction of greenhouse gas emissions. It is inferred that the Conduct Code for Braskem Ethanol Suppliers was the main upstream factor that triggered these outcomes. The main downstream effects developed by the focal organization are related to the environmental importance suggested by this product. Potential clients have been identified by the focal organization and for them, the I'm green™ mark was created, which can be considered a major downstream spillover.

Biography

Eugenio Avila Pedrozo is an associate professor and researcher at Federal University of Rio Grande do Sul (UFRGS), Brazil. His main interests include: sustainability, complexity (Morinian's perspective), innovation, technology, BOP and, societal discussions linking individus, organizations, interorganizational and societal levels. He has special interest inter/transdisciplinarity analysis using multiples points of views.

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