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“TEN YEARS WORKING TOGETHER FOR A SUSTAINABLE FUTURE”

The Production Planning and Control eco-efficient: a case study in the plastic segment

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Abstract

Eco-efficiency allows a company to be environmentally responsible and at the same time obtain economic gains through its productivity or services. In the midst of the economic and environmental challenges faced by organizations, activities such as recycling, reuse, energy saving, preventive maintenance and Setup, among other creative actions, are challenges that the Production Planning and Control (PPC) must face in this new scenario to make an enterprise eco-efficient. In this context, the present study aims to verify the benefits that the activities carried out by the PPC can provide to organizations, both in the economic and environmental aspects of companies in the plastic segment. In the present study, a case study was carried out, and as a data collection technique, a semi-structured interview was conducted with the PPC manager. To evaluate the environmental impact, the MIF eco-efficiency tool was used, resources used in the Wuppertal Institute table (2014). Through values, (prices and quantities) of the raw material, reports and interviews, besides participant observation, it was possible to carry out calculations of the economic and environmental values obtained before and after implementing the SMED methodology in the production line, for the reduction of setup in a company of the plastic branch. As well as other actions accompanied by the PPC as recovery and reuse of raw material and substitution of non-renewable by renewable raw material. With the joint implementation of actions, the company obtained economic and environmental benefits, providing a quantity of R\$ 1,009,316.74 with reduction, recovery and reuse of chips in the production process, and a reduction of 42,644.52 tons avoided to be withdrawn from the ecosystems in a period of six months.

Keywords: *Eco-efficiency, PPC, setup, reuse, renewable raw material.*
