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“TEN YEARS WORKING TOGETHER FOR A SUSTAINABLE FUTURE”

Environmentally sustainable product development process: diagnostic and suggestions for small and medium-sized enterprises

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Abstract

The present study aimed (i) to investigate the approaches and the advances made in the academic discussion regarding the alignment between environmental sustainability and the product development process, and (ii) to develop a diagnostic on small and medium-sized enterprises that operate in southern Brazil. To that end, an exploratory research was performed in two steps: a bibliographical and a field research. The bibliographical research was carried out on Web of Science and Scopus databases. The field research was performed with the managers of 18 industries of different segments. Regarding the theoretical research, the results indicate that some studies highlight that sustainability practices must be integrated into the existing product development processes, other studies propose that specific models should be developed, and, finally, another field of research highlight tools that can be used in sustainable development processes. As to the field research, it can be stated that the organizations sampled understand the need for environmental sustainability in products and processes, and define internal drivers for the adoption of the adequate practices, adapting to the regulatory pressures and to the market demands. Nevertheless, the results also show that the companies' present structural gaps in the product development processes, perform incomplete sustainable design actions and do not possess broad experience in the specific activities of the green product development process. Considering the results, a referential system to orient the practice of an environmentally sustainable product development process is proposed.

Keywords: *Green Product Development Process. Environmental Sustainability. Green Product Innovations.*