Critical success factors in the management of product development process in medium and small technology-based companies within the process control automation sector

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Abstract: Excellence in the management of product development process (PDP) is a source of business competitive advantages, mainly for those technology-based companies, which benefit from the important competitiveness factor of launching products with a diverse technological content. The capacity of managing this process affects factors such as a new product time to launch, cost and quality of the product developed. The objective of this paper is to describe and analyze the main practices and success factors related to PDP management in medium and small technology-based companies within the Process Control Automation sector. Therefore, the following subjects were analyzed: perceived product performance, product innovation degree, skills to develop products observed by both the company and the project leader and the quality of how the PDP was carried out. A survey was used gathering data from a sample of 32 companies in the State of S Paulo. Results emphasize that the management of new product projects by the surveyed TBCs should consider actions that enhance the pre-development activities: new product projects, integration with the company strategy, technical and economic characteristics those products have and the development of the project manager managerial skills and relationship. Companies should also resort to their small size as a facilitating factor to integrate functional areas.

Keywords: product development process, success factors, small and medium size technology- based companies, process control automation sector





