

Integration and Application of BSC with ANP-Fuzzy in PYME in the Manufacturing

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ABSTRACT

Balanced Scorecard (BSC), when used as a strategic evaluation tool, has some shortcomings in terms of implementation on a quantitative basis. This study aims to determine the level of performance of a PYME, based on its vision and strategies, by integrating the BSC approach with the ANP-Fuzzy technique, covering the measurement and evaluation dimension of the BSC. The proposed model has shown that different units of measure related to performance indicators under the BSC approach, and performance indicators of different structures, can be consolidated with the ANP-Fuzzy technique. In addition, the proposed model takes into account the business performance based on its vision and the strategies applied to achieve this vision. In this way, it is possible to evaluate from a strategic perspective the business performance in accordance not only with the previous results, but also with the main indicators. The proposed model in the scope of this study was related to a production business, however, it can also be adapted to different businesses.

Keywords: Balanced-Scorecard; fuzzy-logic; strategies; indicators; vision