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Titel des Beitrags: Technology assessment based on growth functions for prediction of future development trends and the maximum achievable potential

Abstract:
A company’s ability to find the most profitable technology is based on a precise forecast of achievement potential. Technology Management (TM) uses forecasting models to analyze the future potential, e.g. the Gartner Hype Cycle, Arthur D. Little’s technology lifecycle or McKinsey’s S-curve model. All these methods are useful for qualitative analysis in the planning of strategic Research and Development (R&D) expenses. In a new approach, exponential and logistic growth functions are used to identify and quantify characteristic stages of technology development. Datasets from different industry sectors are analyzed, as the number of active Facebook users worldwide, the tensile yield point of flat bar steel, the number of transistors per unit area on integrated circuits and the fuel efficiency per dimension of passenger cars. The methodology can help to answer key entrepreneurial questions such as the search for alternatives to applied technologies and identifying the risk of substitution technology.

Stichworte: FTM Fahrzeugkonzepte

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