

# THE APPLICATION OF QUANTITATIVE METHODS FOR THE MODIFICATION OF A BUSINESS MODEL IN THE DIGITAL ERA, WITH THE SUPPORT OF THE MAPLE SYSTEM

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## **Abstract.**

*Purpose.* At present, more than in the past, digitization and ITC systems are mainstays. For business companies, this means being able to respond to the ideas of external partners in creating open innovations (for modifications of business models - reflecting the costs, the market potential, the competitiveness, etc., best by an online approach). Our paper deals with the support of these principles.

*Research Methodology.* In the period of May-June 2021, a detailed automotive industry survey in the form of an online questionnaire was run in Germany, and this on two planes: from the customer's and employee's perspective. Here we focus on the customer for creating the business model using open innovations, but especially for the options of implementation of selected quantitative methods with the support of the advanced Maple system for evaluating the survey conclusions. What counts is to establish a baseline not only for a descriptive numerical interpretation of results acquired, but to attempt to track the qualitative factors denoting the customer's internal motives - ones that might be crucial for the formation of the business model. The latest release Maple 2021 will be introduced briefly and to the purposely.

*Findings, Research Limitations and Practical Implications.* The results of the applied adequate quantitative methods and a suitable ICT system confirm in context that the customer becomes an essential resource for open innovations of an automotive manufacturing company, and this way the company has potential to work not only for the customer but also with the customer. *Value*

*Value.* The practical implementation of the conclusions contributes to the need of scalability of the business model in this area, especially in the future.

**Keywords:** automotive industry, business model, Maple, mathematical and statistical methods, open innovation, questionnaire evaluation, visualization.

**JEL Classification:** C02, C10, M19, O36.

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