

# Application of Artificial Neural Networks in Pricing – Case Examples from the Automotive Industry

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## **Abstract**

Big data and artificial intelligence (AI) are transforming traditional marketing and bear the potential to contribute significantly to business success. In view of increasingly complex, data-rich environments, AI-enabled modeling approaches such as deep learning via artificial neural networks (ANNs) will become increasingly important. ANNs offer great potential particularly in the field of pricing. Nonetheless, ANNs are currently neither widely applied in practice nor are they attracting considerable attention in marketing research. To close this gap, this work uses a real-world dataset from the automotive industry to demonstrate the capabilities of ANNs in pricing. This comprises, an estimation of brand-related price premia and initial car prices based on ANN learning. This work contributes to the growing body of research on AI-infused applications in marketing. Moreover, it may help research and practice to improve the understanding of the specific capabilities of ANNs in pricing.

**Keywords:** *big data; artificial neural networks; artificial intelligence*

**Track:** Pricing & Promotions