

# Automated psychographic consumer segmentation: a text classification approach

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# **Automated psychographic consumer segmentation: a text classification approach**

## **Abstract:**

Self-Determination Theory (SDT) (Ryan & Deci, 2000) categorizes different types of motives and used to segment customers. Drawing on SDT, this study analyzes 290 customer interviews across seven industries with computational linguistics and compares seven machine learning algorithms with five different conceptual bases. The algorithm eXtreme Gradient Boosting classifies seven out of ten interviews correctly into extrinsic or any of the three intrinsic motive types autonomy, competence, and relatedness. If relatedness is further subdivided into relating to an individual versus an organization, three different algorithms classify six out of ten interviews correctly. SDT and the computational methodology are thus not consumption context or language specific but generalize to different industries and the German language. With the ever-increasing amount of voice and text data, marketing managers can use the proposed methodology as a blueprint to segment their customers.

**Keywords:** *text classification, customer segmentation, Natural Language Processing*

**Track:** *Methods, Modelling & Marketing Analytics*