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**Contacts:**

Dr. Jolita Bernatavičienė

*jolita.bernataviciene@mif.vu.lt*

Prof. Olga Kurasova

*olga.kurasova@mif.vu.lt*

Tel. +370 5 2109315

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# Customer Segmentation for Personalised E-Commerce Advertising Campaigns

Virgilijus Sakalauskas, Dalia Krikščiūnienė

Vilnius University

*virgilijus.sakalauskas@knf.vu.lt*

The continuous rise of e-commerce has encouraged significant interest among researchers in comprehending online shopping behavior, consumer interest trends, and the effectiveness of advertising strategies. However, a notable research gap exists in the identification of promising e-shoppers for tailored advertising campaigns. In response, this paper introduces an innovative approach to identify high-value e-shop clients through the strategic analysis of clickstream data. Our novel algorithm is designed to determine customer engagement and make out high-value customers. It uses clickstream data to compute a Customer Merit (CM) index, which evaluates the customer's engagement level and anticipates their purchase intent. The CM index dynamically adapts, taking into account the customer's activity, efficiency in product selection, and time spent browsing. This approach proves its value to businesses aiming to identify potential buyers and optimize e-shop sales through cost-effective advertising campaigns. To validate our approach, we tested it with actual clickstream data from two e-commerce websites. The results demonstrate that our personalized advertising campaign outperformed the non-personalized counterpart, as evidenced by improved click-through rates and conversion rates. Emphasis is placed on the method's efficacy in identifying potential e-shop visitors with a high purchase intent. This methodology integrates customer browsing and purchasing behaviors with key metrics such as time spent on the website and frequency of e-shop visits. In summary, our findings underscore the potential of personalized advertising strategies in augmenting e-commerce sales while simultaneously reducing advertising costs. By harnessing the power of clickstream data and adopting a targeted approach, e-commerce businesses can not only attract but also retain high-value customers, leading to increased revenue and profitability.