

Recognizing Customer Preferences Using Review Documents: A Hybrid Text and Data Mining Approach

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Abstract : The vast increment in the e-commerce ventures makes this area a prominent research stream. Besides several quantified parameters, the textual content of reviews is a storehouse of many information that can educate companies and help them earn profit. This study is an attempt in this direction. The article attempts to categorize data based on a computed metric that quantifies the influencing capacity of reviews rendering two categories of high and low influential reviews. Further, each of these document is studied to conclude several product feature categories. Each of these categories along with the computed metric is converted to linguistic identifiers and are used in an association mining model. The article makes a novel attempt to combine feature attraction with quantified metric to categorize review text and finally provide frequent patterns that depict customer preferences. Frequent mentions in a highly influential score depict customer likes or preferred features in the product whereas prominent pattern in low influencing reviews highlights what is not important for customers. This is achieved using a hybrid approach of text mining for feature and term extraction, sentiment analysis, multicriteria decision-making technique and association mining model.

Keywords : association mining, customer preference, frequent pattern, online reviews, text mining

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