

## Voice of Customer: Mining Customers' Reviews on On-Line Car Community

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**Abstract :** This study identifies the business value of VOC (Voice of Customer) on the business. Precisely, we intend to demonstrate how much negative and positive sentiment of VOC has an influence on car sales market share in the unites states. We extract 7 emotions such as sadness, shame, anger, fear, frustration, delight and satisfaction from the VOC data, 23,204 pieces of opinions, that had been posted on car-related on-line community from 2007 to 2009(a part of data collection from 2007 to 2015), and intend to clarify the correlation between negative and positive sentimental keywords and contribution to market share. In order to develop a lexicon for each category of negative and positive sentiment, we took advantage of Corpus program, Antconc 3.4.1.w and on-line sentimental data, SentiWordNet and identified the part of speech(POS) information of words in the customers' opinion by using a part-of-speech tagging function provided by TextAnalysisOnline. For the purpose of this present study, a total of 45,741 pieces of customers' opinions of 28 car manufacturing companies had been collected including titles and status information. We conducted an experiment to examine whether the inclusion, frequency and intensity of terms with negative and positive emotions in each category affect the adoption of customer opinions for vehicle organizations' market share. In the experiment, we statistically verified that there is correlation between customer ideas containing negative and positive emotions and variation of marker share. Particularly, "Anger," a domain of negative domains, is significantly influential to car sales market share. The domain "Delight" and "Satisfaction" increased in proportion to growth of market share.

**Keywords :** data mining, opinion mining, sentiment analysis, VOC

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