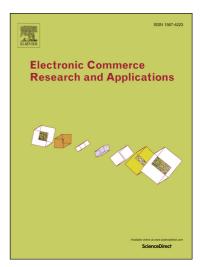
Accepted Manuscript

Topic analysis of online reviews for two competitive products using latent dirichlet allocation

Wenxin Wang, Yi Feng, Wenqiang Dai

PII:	S1567-4223(18)30038-3
DOI:	https://doi.org/10.1016/j.elerap.2018.04.003
Reference:	ELERAP 786
To appear in:	Electronic Commerce Research and Applications
Received Date:	16 January 2018
Revised Date:	24 April 2018
Accepted Date:	24 April 2018



Please cite this article as: W. Wang, Y. Feng, W. Dai, Topic analysis of online reviews for two competitive products using latent dirichlet allocation, *Electronic Commerce Research and Applications* (2018), doi: https://doi.org/10.1016/j.elerap.2018.04.003

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

TOPIC ANALYSIS OF ONLINE REVIEWS FOR TWO COMPETITIVE PRODUCTS USING LATENT DIRICHLET ALLOCATION

Wenxin Wang, Yi Feng (contact author), Wenqiang Dai

School of Management and Economics University of Electronic Science and Technology of China Chengdu, China 611731 wwx712@163.com, fengyi@uestc.edu.cn, wqdai@uestc.edu.cn

Last revised: April 25, 2018

ABSTRACT

The voice of the customer plays an important role in product competition. Traditional methods in the area have largely focused on market research and questionnaire surveys to obtain customer preferences. However, online product reviews have provided a good and reliable channel for not only understanding customers needs for one product or service but also analyzing products' competition in the market. In this paper, we propose a new framework of applying online product reviews to analyze customer preferences for two competitive products. We extract the key topics of online reviews for two specific competitive products via a text mining approach of *latent Dirichlet allocation* (LDA). Topic difference analysis demonstrates the unique topics of the two products. The relative importance and topic heterogeneity analyses identify the competitive superiorities and weaknesses of both products. Two case studies that are presented demonstrate the efficacy of the proposed framework. The method also provides valuable managerial implications for product designers and e-commerce companies.

Keywords: Competitive analysis; latent Dirichlet allocation; online product reviews; product competition; text mining; topic analysis.

Acknowledgments. The authors' research is supported by the Natural Science Foundation of China (No. 71432003) and National Social Science Foundation of China (No. 17XGL011).

Download English Version:

https://daneshyari.com/en/article/6854033

Download Persian Version:

https://daneshyari.com/article/6854033

Daneshyari.com