Evaluation Approach of Social Media Content on Firm's Marketing Innovation

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Introduction

Marketing is a front end strategy of firms to communicate the value of their product or services to customers, Therefore innovation in marketing has a tremendous value in comparison to the whole innovation strategy of cooperation. Innovation is considered to be a novel way of doing things, but eventually the goal of innovation from the perspective of an organization is the creation of value and a positive impact on current operations and development. Therefore, innovation may only include the changes that have favorable consequences for organizations (Sørensen & Stuart, 2000).

The emergence of Social Network Services (SNSs) as a dominant communication platform between firms and users provides an opportunity to evaluate the marketing aspect of a firm's innovation strategy. Firms are finding social media and social media content that is made by users to be a valuable asset that should be understood and considered in any major decision made by firms (Nair, 2011). In addition, advances in computer science and particularly Natural Language Processing (NLP) techniques accelerate the opportunity to analyze the content generated by users in SNSs. In this paper, we investigate the relationship between public opinion and companies' marketing performance in SNSs. Twitter was used as a data source and leaders in the smartphone market were selected as candidate companies. Later on, content analysis of tweets retrieved through studying candidates revealed a positive effect with the revenue for which that particular product category generated for the company.

Research questions

This study examines the content generated by users on Twitter for the top 3 highest market shareholders in the smartphone industry. Natural Language Processing (NLP) techniques and Sentiment Analysis (SA) were applied to analyze unstructured text content on the Twitter website. Specifically, the study attempts to answer the following questions.

- What patterns can be found from related content on Twitter respectively?
- What is the relationship between SNSs content and the financial status of firms?
- Does marketing innovation in SNSs lead to better financial performance?

Practical part

In order to understand the connection between content generated by users in SNSs for selected companies and their financial performance, different variables have been constructed with the aim to further explore their relationship with each other. Search queries had been built with the respect of the company's major smartphone products and the time study period (January 2014 till July 2014). Later, a sentiment analysis (SA) was used to determine the polarity of user's texts in SNSs. The SA technique is becoming popular and was used in many disciplinary studies such as stock market prediction and firms' equity evaluation (Bollen, Mao, & Zeng, 2011; Yu, Duan, & Cao, 2013). In order to perform SA on the retrieved data from Twitter, the Rapidminer

software was used. In addition to tweets polarity, a survey designed to gather the evaluation of the multiple factors of the content available for studying companies in Twitter was used.

Financial market data has been obtained from Thomson Reuters Datastream and Yahoo Finance Service. This raw data was used to construct measures to capture generated revenue of companies for the specified product category.

Findings

Social Network Services (SNSs) and content generated by users, their impact, and their interrelatedness on firms' financial performance has been analysed. A positive correlation revealed the quality of content in Twitter with a portion of positivity in user comments. In financial aspects, the better quality content in SNSs leads to higher unit sales with some minor time lags.

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