

UNDERSTANDING MARKET BEHAVIOUR IN MICROBLOGS

– A STUDY ON TWITTER AND HOLLYWOOD MOVIES

Abstract

Social Media micro-blogging broadcasting networks such as Twitter are transforming the way Online Word-of-Mouth (WOM) is disseminated and consumed in the digital world. In the present study, it is researched as to whether and how Twitter is influential as a WOM communication tool and thereby affecting movie market. Twitter social behaviour for the Hollywood movies has been assessed across seven countries to validate the three basic blocks of the honeycomb model – sharing, conversation and reputation. The difference of Twitter social media behaviour has been compared across countries. Further, a sentiment analyser has been developed to ‘classify’ the ‘reputation’ of Hollywood movies in all the seven countries using machine learning techniques. Finally, the relationship between Twitter sentiment and movie rank and box office revenues has been examined. Twitter behaviour and sentiments was studied for 27 movies in 22 different cities of seven countries and for six genres with a total tweets of 9.28 million. The difference of Twitter social media behaviour was compared across countries, and ‘sharing’ and ‘conversation’ as two building blocks of the honeycomb model were studied. T-test results revealed that the behaviour is different across countries and across genres. In order to study ‘reputation’ as a building block, the tweets were classified. A sentiment analyser using Naïve Bayes, MaxEnt and SVM machine learning techniques was developed to classify the tweets. For a specific training-test set, sentiment analyser classification accuracy of nearly 90% was achieved in a 10-fold experiment. Further, the results revealed that Twitter sentiments can be classified into four categories, viz., positive, negative, cognitive or prospective. T-test results revealed that while all these are expressed in all the countries taken as in the sample, sentiments vary from one country to another country. The relationship between sentiments and business performance was studied by relating the Twitter sentiments to rank of the movie and box office revenues. The results of the multiple regression model are indicative of a relationship between Twitter sentiments and movie rank, Twitter sentiments and box office revenues and the values are significant.

Key Words: Twitter, Sentiment Analysis, Online Social Media Word-of-Mouth, Hollywood Movies.