ABSTRACT BOOK

**5th International Conference on New Trends
in Econometrics & Finance**

ICNTEF CONFERENCE

INTERNATIONAL CONFERENCE ON NEW TRENDS IN ECONOMETRICS & FINANCE

APRIL 22-24 2019
Greece/Turkey
http://www.icntefconference.com/

ICNTEF'2019

5th International Conference on New Trends in Econometrics &Finance
Athens/Greece

Published by the ICNTEF Secretariat

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Conference organised in collaboration with Smolny Institute of the
Russian Academy of Education

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THE IMPACT OF TWEET SENTIMENTS ON TECH STOCK RETURNS: AN APPLICATION OF ASYMMETRIC GRANGER CAUSALITY

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Abstract

The efficient market hypothesis proposed by Eugene Fama in 1970 states that a market in which prices always fully reflect available information is called efficient. It was a utopia that to call a financial market as efficient. However, the reflection of information to prices is possible in our era, thanks to technological developments. As smartphones become prevalent, they provided many possibilities for investors. Notably, the applications of social media (e.g., Twitter) present a source of the news about all companies. Investors can use social media information for their investment decisions. In this study, we aim to investigate whether there is a relationship between the number of tweets and stock returns of four favorite companies in the technology sector of S&P500 (AAPL, GOOGL, AMZN, MSFT) or not. The hourly data contain the stock returns and three different tweet sentiments which called total, positive, and negative score categories from May 7, 2018, to November 12, 2018. It was gathered from Bloomberg Professional Terminal News & Social Sentiment Database. We examined symmetric and asymmetric casual relationships via Granger and Asymmetric Causality test approaches, respectively. The results of Granger causality test indicate that there is an impact of negative tweet sentiments on AAPL, AMZN, MSFT stock returns, but not for GOOGL. According to the asymmetric causality test results, there are causality relationships between positive/negative shocks of tweet sentiments and stock returns.
Key Words: Efficient Market Hypothesis; Asymmetric Causality; Tweeter Sentiment; S&P500.

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