



News Media and the Stock Market: Assessing Mutual Relationships. An Interdisciplinary Multi-Method Study of Financial Journalism, News Media, Emotions, Market Events and the Stock Market

N. Strauß

English Summary

The interrelation between news media and the stock market does not only arouse interest among people interested in the financial market, but even scholars from various research fields have devoted considerable attention to this topic in the past years. Particularly, post the Global Financial Crisis of 2007-2009, and after the advent of new technologies, which led to an increase in the amount of information generated and disseminated, the way news media and information drive stock prices has gained greater relevance for the financial markets. Moreover, in the face of financialization of today's global society, increasing influence of corporate forces in politics (e.g., Trump election, lobbyism) and, at the same time, a decreasing financial and economic education among citizens, studying the interactions between news media, financial journalism and market events has become of paramount importance for our society.

However, research investigating the specific role of the news media, the particular characteristics of (financial) news and financial journalism when trying to explain stock market movements, has received little attention so far. In fact, previous research in this field mainly stems from economics and finance. Thus, to meet the needs of a holistic research approach, this dissertation aims to contribute to this field by employing an interdisciplinary, multi-method study approach, guided from a communication science perspective. In so doing, this dissertation has shown that theories and methodologies from various disciplines can be combined in a fruitful manner, offering new and useful insights for both academia and practice.

More specifically, six empirical studies have been conducted in the course of this study, of which the mutual relationships between news media and the stock market have been investigated along three research lines that varied in terms of objects of investigation (e.g., financial journalists, newspaper articles, online news articles, tweets), time horizons of media effects assumptions (i.e., long-term vs. short-term), geographical focus (i.e., the USA, the Netherlands, and Germany) as well as methodological approaches (i.e., qualitative vs. quantitative vs. triangulation).

Empirical Studies

The first part of the dissertation investigates the role of financial journalists in the stock market by means of interviews and a survey. The findings call for redefining the watchdog role of financial journalism that combines investigative reporting with an information transmission view. Furthermore, journalists have been found to be part of a self-referential financial information system that leaves little room for alternative voices. Correspondingly, significant influences on stock market prices through financial reporting have been reported to be exceptional and dependent on various factors. With regard to the proliferation of online news and editorial cutbacks, a general concern about the loss of a journalistic culture and standards has been expressed, whereas, at the same time, journalists see a bright future for their discipline with regard to automated reporting and online news.

The focus of the second part of the dissertation is on the role of emotions in news media coverage and its effects on the stock market. The first study (Chapter 3) investigates the recursive long-term effects of daily newspaper coverage and the amount of emotional words on stock market prices of stocks listed on the Amsterdam Exchange index (AEX). Findings imply that an increase in negative emotional words leads to a decrease in the opening prices for a few AEX stocks, while the interaction effect of media attention and emotional words on opening prices is less clear. Instead, time series analyses suggest reversed effects, with

newspapers using more negative emotional words after an increase in the change in the opening prices of certain stocks.

The second study in this part of the dissertation (Chapter 4) looks at the mutual relationship between economic tweets by Reuters and Bloomberg and the intraday fluctuations of the Dow Jones Industrial Average (DJI) index. Findings indicate that news volume, news relevance, and expert opinion in tweets positively influence the fluctuation in the DJI, while the economic tweets appear to react to market fluctuations negatively (i.e., fewer retweets, favorites, updates, or expert opinions). Also, it was found that Bloomberg provided first-hand information about the market to professional investors by means of influential market stories, while the economic tweets by Reuters and Bloomberg could rather be considered as follow-up reporting for the broader investment public.

The third and final part of the dissertation deals with specific market events and the stock market. The first study (Chapter 5) investigates 50 initial public offerings (IPOs) in Germany and the relation between news media coverage of these IPOs with their flotation performance. The findings suggest that an increase in media coverage on the day of the IPO leads to a higher share price percentage gain in IPOs after the second day of trading. Furthermore, a negative relationship has been detected between the negative sentiment, the presence of information on a new product, or products of IPOs, and the flotation performance of IPOs. The relationships found are more evident and robust when considering media coverage published on the day when the IPO went public as compared to media coverage published six days prior to the IPO.

The second study (Chapter 6) in the third part examines Tesla Motors and the effect of a business event (i.e., introduction of a new battery in August 2016) and the follow-up financial online news reporting on Tesla's intraday stock market prices. It could be seen that Tesla's share price reacted strongly to the business event itself and the expectations raised on the market rather than to the follow-up reporting. In this context, the Twitter accounts of Elon Musk and Tesla have been identified as providing market-relevant information for shareholders and day traders, while also having the potential to cause broad (speculative) financial reporting.

The last study in the third part (Chapter 7) of the dissertation deals with financial networks on Twitter. Focusing on the quarterly earnings (QE) announcements of DJI firms, it has become evident that the financial network consists of established news media, journalists and professional investors at its core (though alternative and anonymous voices get heard as well). Furthermore, it was found that devoting more attention to the reporting companies leads to a decline in the stock prices in the short-run, whereas effects in the reverse direction seem to vary. Moreover, the consultation of secondary data suggests that the actual reporting of the QE, as well as the evaluation of the numbers by the financial media thereafter, might influence stock market reactions of reporting companies during the QE announcement period too.

Takeaway Points

In sum, this dissertation offers six takeaway points. First, it shows that first-hand economic news seems to induce stronger, and more immediate stock market reactions among professional investors than already known public information. Second, public economic news appears to be related to smaller and more delayed stock market reaction. Third, daily news coverage about stocks seems to lag behind too much to be able to drive stock prices. Fourth, public corporate communication was found to affect intraday stock market reactions (e.g., quarterly earnings, new product), while, at the same time, market expectations appear to play

a crucial role in how financial news gets interpreted and acted upon by market participants as well. Fifth, with regard to news characteristics, negative emotions and sentiments have been found to induce a downward trend in the stock prices, while relevant news and expert opinions seem to drive the stock market prices up. In addition, corporate news dealing with IPOs was seen to relate to the flotation performance of IPOs in particular. Lastly, while social media platforms have been identified to provide relevant financial information for the financial markets, the financial information system itself was found to be self-constitutive and self-referential. In line with this, a tendency of speculative reporting—or simply follow-up reporting—seems to have become common practice for online financial news these days.

Conclusion

To conclude, this dissertation provides various informative insights, explaining the interrelationship between news media and the stock market from a communication science perspective. In this vein, the empirical findings have not only contributed to the advancement of an interdisciplinary, and often scattered, research field, but may also provide a ground for the proliferation of financial communication in the future. Furthermore, the findings also offer some hands-on tips and advice to communication professionals for their daily work on how to communicate in the financial context. In so doing, this dissertation has also made the seemingly complex topic of news media and the stock market more accessible, thereby hopefully motivating readers to open up to financial education and become more interested in learning about financial and economic topics. However, acknowledging the limitations of this dissertation—both in terms of methodology and generality—this dissertation invites future research to shed more light on the complex role of the news media in the financial markets, and society as a whole, in today's fast-moving information environment.