

Sentiment of non-financial information as a factor affecting the reaction of the capital market

Ewelina Niedzielska

The dissertation pursues two goals: cognitive and empirical. The aim of the dissertation in the cognitive dimension is to identify and characterize key paradigms describing the ways in which information is discounted by financial market participants. The aim of the work in the empirical dimension is to examine and evaluate the way in which information is discounted by stock market investors, from the point of view of an additional perspective, which is the sentiment of press articles about companies listed on the Warsaw Stock Exchange.

The main reflection concerns the polemics that have been going on for many years, related to the way investors react to information. In this context, two paradigms have been distinguished. The first is the *Efficient Market Hypothesis*, in which the investor is perceived as a rational entity. The second paradigm is behavioral finance, in which it is indicated that the way investors process information is burdened with a number of simplifications and cognitive errors.

Fundamental to the discussed problem is the definition of the concept of information. The author of the dissertation postulates that in the context of financial markets, information should be understood not as the content itself, but as a process whose inseparable elements are the sender and the recipient. It should be noted that in recent years, the catalog of broadcasters of news content has been expanded. Currently, not only companies or public institutions, but also journalists dealing with economic and financial topics can be defined in this way. In the presented dissertation, the author cites numerous studies indicating the possibility of using text and sentiment analysis in the area of financial markets. The sentiment of non-financial information is defined as the degree of positivity or negativity of the text.

In the empirical part of the work, the main hypothesis is verified:

H: The sentiment, contained in the textual data, is reflected in the market reaction.

The main hypothesis was supported by the following auxiliary hypotheses:

H1: English-language press articles about companies listed in the WIG20 index in the period from January 1, 2013 to December 31, 2022 are characterized by a predominance of positive sentiment over negative sentiment.

H2: There is an asymmetry in the way the market reacts to positive and negative sentiment contained in English-language press articles about companies listed in the WIG20 index.

H3: The sentiment contained in English-language press articles regarding companies listed in the WIG20 index determines the reaction of stock market investors.

The presented dissertation has a theoretical and empirical character and consists of six chapters. In the first chapter, the author tried to answer the question about the role of information in financial markets. The essence of the second chapter was to present two perspectives characterizing the recipients of information on the financial market. The aim of the third chapter was to characterize the senders of information, who - within the framework of this dissertation - are understood as journalists dealing with the subject of financial markets. The fourth chapter discussed the concepts related to the emergence of a new type of data, i.e. Big Data, and the related data mining process. The fifth chapter was an overview of the research conducted so far in the described area. The sixth chapter presented the results of own research conducted on the basis of a research sample consisting of 35 entities listed in the WIG20 index in the period from 01/01/2013 to 31/12/2022. Over 57,000 English-language press articles were used in the study. It consisted of three stages: (1) sentiment extraction; (2) event analysis; (3) construction of the logit model.

To the best of the author's knowledge, no studies have been conducted so far to assess the importance of sentiment contained in press articles for explaining the daily rates of return of companies listed on the Warsaw Stock Exchange. Considering the growing number of analyzes on this topic carried out on Western markets, it can be said that there is a research gap in the local area, which the author tried to fill.

26.01.2024 KŁOŚĆ
F. Bielak