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The Information Value of Unstructured Analyst Opinions

Studies on the Determinants of Information Value and its Relationship to Capital Markets

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Abstract:

Due to the rising importance of information and communication technology in the financial industry the amount of unstructured textual and decision-relevant data that is being analyzed by market participants also continues to increase. In this environment, decision makers must continue to be able to stay informed despite the increases in data velocity that this process has entailed. This concerns many sources of unstructured textual data, such as social-media postings, financial news, and various sources of unstructured analyst opinions. The information value of stock analyst opinions has been studied by finance research extensively. However, the unstructured portion of analyst opinions continue to pose a challenge to research due to the inherent difficulty of extracting knowledge from copious amounts of textual data.

In this thesis, I investigate how modern text-mining methods can be applied to this source of textual data in order to answer different research questions derived from extant research and how the information value of unstructured analyst opinions can help to augment existing sources of structured analyst opinions to help create a more comprehensive data landscape for the analysis of analyst opinions as a whole.

To this end, this thesis includes three areas of research. In the first area of research, the impact of new digital technologies on the financial (services) industry is investigated regarding their effect on business models in the financial sector. This helps to understand the environment in which financial analysts operate following the digitization of financial markets. In the second research area, the methodological foundations for the analysis of unstructured analyst opinions are examined and sentiment analysis and topic mining are looked at in more detail as the two main methods of analysis used throughout the third research are of the thesis. In the third and main part of the thesis, the information value of unstructured analyst opinion is investigated through the lenses of different theories stemming from both information systems and financial research. This includes studies on the effect of media richness on information value, the relation between social-media and analyst sentiment and the effect crowd wisdom has on this relation, as well as how decision makers can be supported using text-mining methods when analyzing unstructured analyst opinions.