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# Management Discussion and Analysis in the US Financial Companies: A Data Mining Analysis

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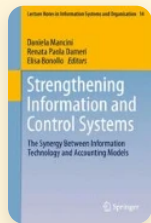
**Strengthening Information and Control Systems**

Carlo Caserio ✉, Delio Panaro & Sara Trucco

## Abstract

This research aims to analyse how managers react to firm's financial conditions, in issuing the Management Discussion and Analysis (MD&A) and if MD&A content could be used to forecast firms' future financial performance. To do so, we appeal to text mining techniques such as natural language processing and sentiment analysis. The main assumption is that the MD&A content varies depending on financial and economic conditions companies are experiencing. The study is conducted on a sample of US listed financial companies which experienced,

between 1995 and 2011, different financial conditions, namely: (1) companies which filed for Chap. 11, thus having a high risk of bankruptcy; (2) companies not filing for Chap. 11, but with a medium risk of bankruptcy according to their economic and financial performance ratios; (3) companies not filing for Chap. 11, with a healthy financial situation. Empirical results reveal some interesting findings regarding the association between the bankruptcy risk levels and the content of the MD&A. This research also provides useful statistical instruments in supporting the stakeholders to investigate the reliability of the MD&As, examining the language used by the companies (effect), as response to financial conditions (cause). Text mining analysis allows to reveal some information that would otherwise remain implicit or even hidden behind complex periods and sentences. Contrary to our expectations, results suggest that companies experiencing high risk of bankruptcy use more positive words than those with medium and low bankruptcy risk. Also, findings show that companies with medium and low bankruptcy risk make a more appropriate use of positive and negative words. Moreover, we found that negative words contained in MD&A are an useful indicator to forecast a worsening of the main financial ratios. Regarding to the future researches, this study provides the starting point for analysing the role of MD&A in supporting the independent auditors' reports. Recent studies show that audit firms often fail in predicting the bankruptcy risk of distressed companies and such an error could be due to the role of MD&A, as auditors may take it as a base for releasing their independent report.

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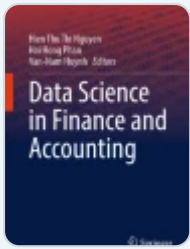- Dispatched in 3 to 5 business days
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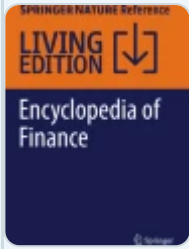Institutional subscriptions →

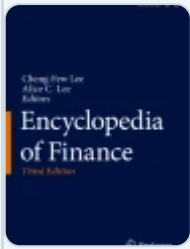## Similar content being viewed by others

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