

Prizing the Buzz: Behaviour Finance and the Impact of Media Sentiment on Stock Market Valuation

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Introduction

Behavioural finance offers an alternative explanation to the deficiencies in current traditional pricing models like the Capital Asset Pricing Model (CAPM), arbitrage pricing theory and option-pricing models by adding a human (psychological) element and by acknowledging that asset pricing arises from a statistically complex and nonlinear (chaotic) process (Olsen, 1998). Various studies have discussed different elements of investor psychology that have an impact on the actions they take which in turn have an impact on the financial markets.

This study focuses on the behaviour factors driving analyst views and estimation of stock value. In my study, I try to test the following hypotheses:

- A company's stock market capitalisation bears some correlation with media sentiment.
- Such correlations are non-linear

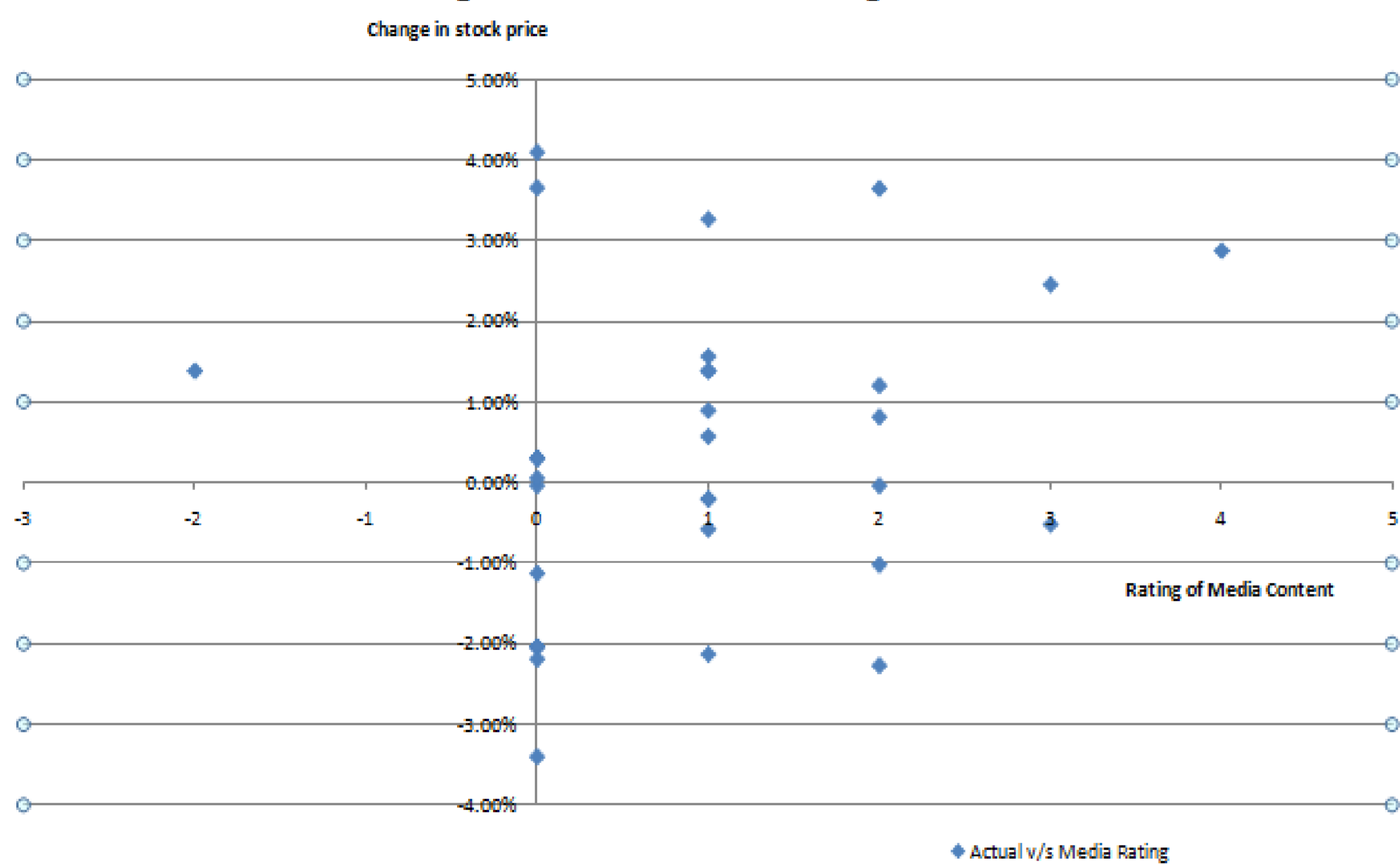
Methodology

This study attempts to determine whether media sentiment triggers the decision-making attributes identified by Olsen (1998) which in turn have an impact on the financial markets. I attempt to do this by carrying out a meta-analysis using data collected for 5 companies listed on the London Stock Exchange in the Pharmaceuticals and Biotechnology sector over 1 month.

I identify key media headlines about the companies and measure the media content on a scale of -5 to 5 (where -5 represents extremely pessimistic/negative content and 5 represents extremely optimistic/positive content). I base these ratings on my knowledge of what the impact of the news content could be and by the use of the tone/content and language used in the articles. I then plot this against the actual movement caused on the financial markets to determine if there is any correlation between these two variables.

Findings and Discussion

Correlation between Change in Stock Price and Rating of Media Content



• For the given sample of data there was a positive correlation of 0.216916

• This result is consistent with previous studies carried out and goes to show that the media does play a role in the decisions made by investors

• I intend to carry on research on this topic over a longer period of time with a much larger set of data so that I can have more substantive results

• I will interview analysts on the London Stock Exchange to get a much better understanding of their approach to this issue and combine this with the numerical results to get a deeper and clearer understanding of the role the media plays in influencing decision attributes of investors

My URSS Experience

The URSS project was a good opportunity for me to experience what the process of undertaking a research project was like. While working on it, I have learnt new research techniques and how to conduct literature search and review from varied sources. Taking these forward, I will use these skills to continue research in this area and write my dissertation. It was also a good platform for me to exercise my academic skills and gain transferrable skills e.g. time management, oral presentation skills, critical thinking skills and writing skills.

Acknowledgements

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References

- Olsen, R. A. (1998). Behavioral Finance and Its Implications for Stock-Price Volatility. *Financial Analysts Journal*, 54 (2), 10-18.
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