



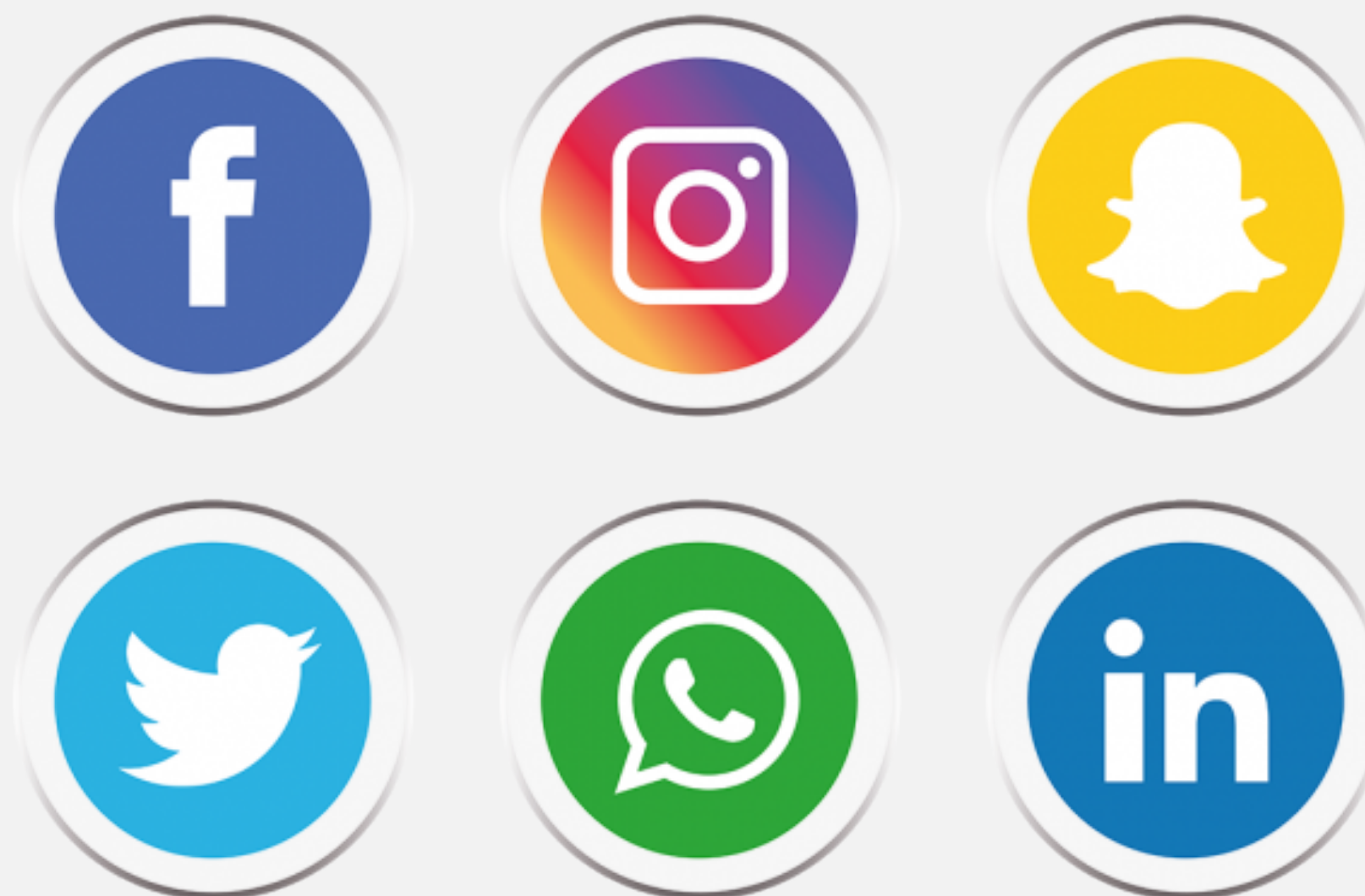
Celebrities on Social Media and Their Effect on Shareholder Wealth



By: Brenna Logan
Advisor: Dr. Laura Cole

INTRODUCTION

- 2.65 billion social media users across globe (Statista)
- Kylie Jenner sent SNAP stock reeling in February 2018 with a single tweet, causing the company to lose 6% of firm value
- 2018 article by Jelle Fastenau states the term ‘influencer marketing’ increased by 325% in Google searches over 2017.
- Event study will show impact specifically on share price and provides good aggregate view of the general affect of social media on firm value



Social Media Platform Logos.

RESEARCH QUESTION

Does a celebrity’s social media post about a company have a significant affect on their stock price?

BACKGROUND

- Relatively new topic in Finance research with most studies conducted within last ten years
- In 2011, Bollen, et al. found general sentiment on Twitter can be correlated to Dow Jones Industrial Avg closing prices
- Luo et. al found social media to be a strong predictor of firm equity value in 2013

HYPOTHESES

- **Null:** The announcement of a celebrity posting about a company on their social media page has no effect on the stock price of a company. There are no cumulative abnormal returns for shareholders.
- **Alternative:** The announcement of a celebrity posting about a company on their social media page has an effect on the stock price of a company. There are either positive or negative cumulative abnormal returns for shareholders.

METHODOLOGY

Building the dataset

- Used Factiva and Google to find 30 different instances where a celebrity mentioned a company in social media post
- Defined a “celebrity” as someone who is verified on social media.
- Found PERMNOs for each company using Wharton Research Data Service (WRDS)

Event study

- Establish estimation window
- Create 10 different windows of time centered on the event (0,0).
- Calculate expected return using estimation window
 - Expected return calculated using either Market Model or Market Adjusted
- Used EVENTUS software to find actual market returns in each event window
 - SAS code applied in EVENTUS to determine these values
- Find Mean Cumulative Abnormal Return across events in sample

RESULTS

- Table 1 shows significant results of the Market Model with an Equally Weighted Index for all events in data.
- Focusing on Mean CAR, we considered any event with a p-value less than 0.10 significant.

FULL SAMPLE		
Time Window	Cumulative Abnormal Return	P-value
(0, +1)	1.13%	0.077
(0, +3)	-0.06%	0.077
(0, +270)	18.55%	0.044
(0, +365)	34.39%	0.006

Table 1 – Full Sample EVENTUS output. Cumulative Abnormal Returns.

Immediately following an event, the average company’s stock price was about 1% higher than expected. One year after the event, the stock returns in our sample were 34% higher than expected on average.

Table 2 – Platform Subset EVENTUS output. Cumulative Abnormal Returns.

INSTAGRAM SUBSET		
Time Window	Cumulative Abnormal Return	P-value
(0, +2)	- 3.68%	0.028
(0, +3)	-4.68%	0.017
TWITTER SUBSET		
(-10, 0)	3.62%	0.055
(0, +1)	0.98%	0.081
(0, +270)	14.92%	0.058
(0, +365)	31.75%	0.004
FACEBOOK SUBSET		
(0, +270)	160.58%	< 0.001
(0, +365)	195.84%	< 0.001

- Table 2 shows significant Mean CARs based on social media platform.
- We considered any event with a p-value less than 0.10 significant.
- Facebook and Instagram had very small sample sizes.

Facebook had largest Mean CAR. Twitter saw significant returns most frequently.

CONCLUSION

- Abnormal stock returns were seen immediately following a social media post and again about one year later
- On average, returns were about 34% higher than expected one year after a social media post
- Twitter saw significant returns most frequently

FUTURE RESEARCH

1. Larger sample size comparisons between platforms
2. Other drivers of one-year cumulative abnormal return

REFERENCES

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CONTACT

Brenna Logan
Email: blogan5@vols.utk.edu

Dr. Laura Cole
Email: lscole@utk.edu