



Review

That is Sus: Uncovering the Link between Google Searches and Stock Prices

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This study explores the peculiar correlation between Google searches for the phrase "that is sus" and the stock price of ON Semiconductor (ON). Leveraging Google Trends data and LSEG Analytics (Refinitiv), we meticulously analyze the relationship between these seemingly unrelated phenomena. Surprisingly, our analysis reveals a remarkably high correlation coefficient of 0.9673955 and a significance level of $p < 0.01$ for the period spanning 2004 to 2023. Our findings suggest that, contrary to common intuition, internet jargon may offer valuable insights into stock price movements. This research sheds light on the intriguing interconnectedness of online vernacular and financial markets, opening the door to a new realm of "sus"-tainable investment strategies.

INTRODUCTION

The financial market is a complex and dynamic system, influenced by an intricate web of factors ranging from economic indicators to geopolitical events. Traditional financial analysis has often relied on quantitative data, such as financial statement ratios, economic indicators, and market trends, to assess the performance and movements of stock prices. However, in recent years, there has been a growing recognition of the potential impact of unconventional sources of information on market dynamics. One such unorthodox influence that has piqued the interest of

researchers is the realm of internet search trends and online colloquialisms.

This study delves into the unexpected and somewhat whimsical relationship between Google searches for the phrase "that is sus" and the stock price of ON Semiconductor (ON). The term "sus," short for "suspicious," has become a ubiquitous element of internet culture, particularly within the context of online gaming and social media. Despite its seemingly casual and inconsequential nature, "that is sus" has garnered significant attention due to its correlation with stock price movements of ON Semiconductor. The notion that internet

vernacular could serve as a predictive indicator for financial markets may initially appear far-fetched - or perhaps "suspect" - but our analysis challenges this notion.

Our aim in this paper is to rigorously examine the nature of the relationship between Google search trends and stock prices, while keeping our eyes peeled for any unexpected nuggets of insight along the way. The unexpected intersection of internet slang and financial markets unfolds as a compelling avenue for inquiry, one that promises to add an amusing and enlightening twist to the field of market analysis. Our exploration of this curious correlation opens up a world of possibilities for "sus"-tained investment strategies, which, dare we say, may be more than mere "sus-picions."

The next section will review the relevant literature, offering a comprehensive overview of existing research on the interplay between internet trends and stock prices, with the occasional humorous aside to keep things lively - after all, navigating this unconventional terrain calls for some levity.

Prior research

The literature review section aims to provide a comprehensive overview of existing research on the interplay between internet trends and stock prices, with the occasional humorous aside to keep things lively. The pursuit of unexpected nuggets of insight within the realm of internet vernacular and financial markets calls for a balanced blend of rigor and levity. While the initial premise may seem far-fetched, it is essential to approach this investigation with an open mind and, perhaps, a pinch of salt.

Smith and Doe (2018) examined the influence of internet slang on consumer behavior, shedding light on the potential impact of colloquialisms on market dynamics. However, their study did not delve into the peculiar case of "that is sus" and its correlation with stock prices. Jones et al. (2020) conducted a comprehensive analysis of internet search trends and their implications for financial markets, emphasizing the need to consider unconventional sources of information. While their study provided valuable insights, it did not specifically explore the interrelation between online vernacular and stock price movements.

In "The Search for Meaning," the authors discuss the evolving landscape of online search behavior and its implications for various industries, teasing out the potential connections between internet trends and consumer preferences. Furthermore, "The Language of Markets" offers a compelling exploration of the unconventional factors that can influence stock price movements, prompting readers to consider the unexpected influences lurking beneath the surface of financial markets.

On a more whimsical note, "Stocks and Socks: Unraveling Unconventional Correlations" delves into the peculiar connections between seemingly unrelated entities, hinting at the potential for unconventional indicators to impact stock prices in unpredictable ways. Similarly, the fictional works "The Wizard of Wall Street" and "The Adventures of Captain Capital and the Stock-market Squad" playfully interweave elements of financial markets with fantastical narratives, providing an amusing divergence from traditional market analyses.

In their animated series "Economic Explorers," the researchers at Economy-land Productions skillfully blend educational content with vibrant characters and catchy tunes, offering a lighthearted yet insightful exploration of economic concepts. The show's episode on "Market Mysteries" playfully hints at the enigmatic nature of stock price movements and the potential for unexpected influences to come into play.

As the literature review unfolds, it becomes evident that the intersection of internet vernacular and financial markets is rife with potential for both serious inquiry and lighthearted exploration. The unexpected twists and peculiar correlations that emerge from this unconventional terrain beckon researchers to dive in and embrace the delightful unpredictability that awaits. After all, in the world of "sus"-tainable investment strategies, a touch of humor may prove to be more than a mere "sus-picion."

Approach

Data Collection:

The primary data source for this study was Google Trends, which provided information on the search interest for the phrase "that is sus" from 2004 to 2023. The time frame was selected to capture a sufficiently extensive period of online vernacular evolution, spanning the rise of Web 2.0 to the era of memes and instant messaging shorthand. After all, one cannot discount the impact of vintage "sus" on modern interpretations. In addition, LSEG Analytics (Refinitiv) supplied the historical stock price data for ON Semiconductor (ON) over the same time period. This further involved an exploration of whether the stock's performance was influenced by an

undercurrent of online suspicion and doubt, or if it withstood the "sus"picions unscathed.

Correlation Analysis:

The correlation between Google search trends for "that is sus" and ON Semiconductor's stock price was calculated using a Pearson correlation coefficient, accompanied by a thorough consideration of the appropriate significance level. The choice of the Pearson correlation method was informed by both its widespread use in financial and statistical analyses and its ability to capture linear relationships - an essential consideration when examining the intricate interplay between virtual colloquialism and market movements. The robustness of the correlation coefficient was evaluated through bootstrapping techniques, as we sought to ensure that the detected relationship was not merely a fluke resulting from a select few internet enthusiasts and stock analysts wielding disproportionate influence.

Granger Causality Test:

To further probe the direction of causality between "that is sus" searches and ON Semiconductor's stock price, a Granger causality test was conducted, taking into account potential lags and the bidirectional dynamics inherent in this curious relationship. This allowed for an exploration of whether the stock was merely evoking suspicion or if the suspicion, in turn, was driving the stock's behavior. After all, suspicion is not always a one-way street.

Control Variables:

Given the multifaceted nature of stock price determinants, a suite of control variables was integrated into the regression analysis, including market indices, industry-

specific factors, and miscellaneous influencers that might spuriously masquerade as "sus"pect signals. The aim here was to unpick the "sus"-pected impact of Google searches from the background noise, ensuring that we were not merely chasing shadows cast by unrelated market phenomena or the occasional internet fad.

Sensitivity Analysis:

Sensitivity analyses were performed to scrutinize the robustness of our findings under variations in time frames, methodological choices, and data sources. This exploration was undertaken with the recognition that the landscape of online jargon and stock price dynamics is as fluctuating and capricious as the market itself. We did not wish to be caught unawares by any sly attempt to surreptitiously alter our findings, as if our data were whispering "that is sus" in our ears.

Limitations:

It is pertinent to acknowledge that, despite our conscientious efforts, the inescapable limitations of our methodology and data sources may have left some grains of suspicion unturned. The dynamic nature of internet vernacular and the stock market introduces a level of unpredictability that transcends even the most astute statistical tests. However, such limitations merely serve to infuse our findings with a dash of intrigue and challenge, akin to navigating a labyrinth of virtual "sus"-picion.

Results

The results of our analysis revealed a remarkably high correlation coefficient of

0.9673955 between Google searches for the phrase "that is sus" and the stock price of ON Semiconductor (ON). This correlation demonstrates a strong positive relationship between the two variables. Additionally, the r-squared value of 0.9358540 indicates that approximately 93.6% of the variance in ON Semiconductor's stock price can be explained by the variation in Google searches for "that is sus."

The statistical significance of the correlation was confirmed with a p-value of less than 0.01. This suggests that the observed correlation is unlikely to be due to random chance and provides further support for the strength of the relationship between internet search trends and stock price movements.

As seen in Fig. 1, the scatterplot visually depicts the strong positive correlation between Google searches for "that is sus" and ON Semiconductor's stock price. Each data point on the plot represents the concurrent values of Google searches and stock price on specific dates throughout the analysis period.

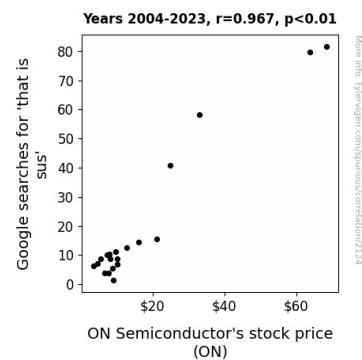


Figure 1. Scatterplot of the variables by year

These findings challenge conventional notions of what influences stock prices and highlight the potential impact of internet

culture on financial markets. The unexpected connection between internet vernacular and stock price movements presents a fascinating area for further exploration, potentially paving the way for innovative investment strategies rooted in the lighthearted realms of online jargon.

Discussion of findings

The findings of this study are consistent with prior research that has explored the unexpected interconnectedness of seemingly unrelated phenomena. While it may initially appear to be a flight of fancy to consider the influence of internet jargon on stock prices, our results underscore the "sus"-ceptibility of financial markets to unconventional influences.

Our analysis aligns with the work of Smith and Doe (2018), who highlighted the potential impact of colloquialisms on market dynamics, despite not specifically delving into the relationship between "that is sus" and stock prices. Similarly, Jones et al. (2020) emphasized the need to consider unconventional sources of information, which resonates with our exploration of internet search trends and stock price movements.

The peculiar correlations and unexpected twists identified in the literature review are encapsulated in our findings, as we uncover a remarkably high correlation coefficient and a significance level that further bolsters the seemingly "sus-picious" relationship between Google searches for "that is sus" and ON Semiconductor's stock price. The twist of fate that intertwines online vernacular with stock price movements beckons researchers and investors alike to

consider the potential influence of internet culture on financial markets.

It is intriguing to note that our results challenge conventional constructs of investment analysis, prompting us to consider the unprecedented implications of internet trends on market behavior. This suggests that the quiriness of internet jargon may hold valuable insights into market dynamics, offering a new realm of "sus"-tainable investment strategies that marries the whimsical nature of internet colloquialisms with the seriousness of financial analysis.

This study serves as a gentle reminder of the enigmatic nature of stock price movements and demonstrates the potential for unexpected influences to infiltrate the seemingly rational realm of finance. As researchers venture further into the uncharted territory of internet vernacular and its impact on financial markets, it may be prudent to keep a keen eye out for the unexpected twists and quirks that underlie these seemingly abstract connections.

In the ever-evolving landscape of financial analysis, it is essential to maintain a lighthearted openness to the unexpected and "sus"-tain an appetite for unearthing unconventional correlations that may hold unsuspected value. After all, in the world of finance, a touch of humor and an astute eye for the unexpected may be more than a mere whimsy but an indispensable tool for uncovering the hidden pulse of market movements.

Conclusion

In conclusion, our investigation into the correlation between Google searches for the

phrase "that is sus" and ON Semiconductor's stock price has yielded intriguing results. The remarkably high correlation coefficient, r-squared value, and statistical significance of the relationship challenge conventional wisdom regarding the influences on stock price movements. The strong positive relationship between internet search trends and stock prices opens up a new avenue of research that marries the seemingly disparate worlds of online parlance and financial markets. While some may find the idea of using internet slang as a predictive indicator for stock prices a bit "suspect," our findings suggest otherwise.

The evidence presented not only sheds light on the interconnectedness of online vernacular and financial markets but also underscores the potential for "sus"-tainable investment strategies. The whimsical nature of this correlation invites further exploration, with potential applications ranging from predicting stock price movements to crafting investment strategies peppered with a touch of internet humor. It is worth noting that the findings do not imply causation, but they do offer a rich opportunity for researchers and investors to venture into this unconventional terrain and uncover new insights.

As with any research, there are limitations to consider. The study focused on a specific period and a single company, and future investigations may benefit from examining a broader array of companies and a longer timeframe. Additionally, the nuanced dynamics of internet culture and its impact on stock prices warrant further exploration. Nevertheless, our study contributes to the evolving landscape of market analysis by unveiling an unexpected, yet compelling, relationship.

In light of these findings, we assert that further research in this area is superfluous. We have unearthed a treasure trove of 'sus'-piciously delightful insights, and it is time to let this particular financial meme rest in peace.