

MIND THE MUSK: MAPPING THE GOOGLE SEARCH IMPULSE FOR ELON MUSK TO MICRON TECHNOLOGY STOCK PERFORMANCE

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The relationship between Google searches related to "who is Elon Musk" and the stock price of Micron Technology (MU) is examined in this study. Leveraging data from Google Trends and LSEG Analytics (Refinitiv), we conducted an extensive analysis of the correlation between public interest in the enigmatic magnate Elon Musk and the stock performance of Micron Technology. The findings revealed a tantalizingly high correlation coefficient of 0.9387471 with a significance level of $p < 0.01$ for the period spanning 2005 to 2023. Our study not only sheds light on the interplay between public curiosity about Elon Musk and the performance of Micron Technology stocks but also hints at the whimsical ways in which information dissemination can affect financial markets. We delve into the implications of these unexpected connections, teasing out the potential impact of pop culture curiosity on stock market dynamics. While "Elon Musk" may have become a household name, our research underscores the unforeseen influence of public interest in enigmatic personalities on financial markets, inviting the collaborative scrutiny of economists and sociologists alike.

INTRODUCTION

The intersection of popular culture and financial markets has long captivated the imagination of scholars and market participants alike. In recent years, the enigmatic figure of Elon Musk has garnered considerable attention from the public, transcending the traditional realms of tech and entrepreneurship to become a cultural icon. The fervent curiosity surrounding Musk has manifested in various forms, one of which being the perpetually pondered query of "who is Elon Musk." Coincidentally, Micron Technology, a prominent player in the semiconductor industry, has experienced its own share of market fluctuations and never-ending intrigue.

In this study, we delve into the curious relationship between the public's quest for knowledge about Elon Musk and the

performance of Micron Technology stocks. By scrutinizing data from Google Trends and LSEG Analytics, we seek to decipher the enigma behind the correlation, exploring the undeniable pull of curiosity on market dynamics. Our findings not only raise eyebrows but also pique the interest of both financial analysts and casual observers alike.

The whimsical coupling of "who is Elon Musk" searches with Micron Technology stock price movements beckons a closer examination, as it hints at the unexpected ways in which information dissemination and popular culture can sway financial markets. As we venture into this uncharted territory, we invite our esteemed peers to embark on a scholarly quest to unravel the offbeat connections and peculiarities that underpin this captivating correlation. After all, in the world of finance, understanding the

"Musk" behind these patterns could prove to be a money-making "Tesla" illumination!

In the following sections, we will methodically unpack the data, analyze our findings, and unveil the implications of this unlikely correlation, uncovering the enthralling narrative where Musk's mystique meets Micron's momentum. Brace yourselves for a journey through the curious corridors of curiosity and finance, where the enigmatic Elon Musk serves as the lodestar, guiding us through an unforeseen nexus of public intrigue and stock market fluctuations.

LITERATURE REVIEW

In their seminal work, Smith et al. (2015) expertly delved into the intricate relationship between public curiosity and stock market dynamics, probing the depths of human inquisitiveness and its potential impact on financial instruments. Their findings underscore the noteworthy influence of information dissemination on market sentiment, setting the stage for our exploration of the interplay between Google searches for "who is Elon Musk" and Micron Technology's stock price (MU).

Moreover, Doe and Jones (2017) conducted a comprehensive analysis of search engine query trends and their correlation with stock movements, emphasizing the nuanced undercurrents of public interest and their resonance in financial markets. This line of inquiry forms the theoretical backbone of our investigation, as we endeavor to unearth the captivating parallels between the enigmatic Elon Musk's public appeal and the fluctuations in Micron Technology's stock price.

In "The Google Story" by Vise and Malseed (2005), the authors chronicle the meteoric rise of the eponymous search engine, providing valuable insights into the evolving landscape of online information retrieval. While the book does

not directly address the correlation between Google searches for "who is Elon Musk" and Micron Technology's stock price, its exploration of digital information consumption lays the groundwork for our study's contextualization within the realm of internet-driven curiosity.

On a more speculative note, "The Martian" by Andy Weir (2011) offers a fictional yet thought-provoking account of survival and scientific ingenuity, suggesting a tenuous link to the innovative spirit embodied by Elon Musk and its potential influence on public interest. While not directly related to our research, the parallels between the protagonist's resourcefulness and Musk's entrepreneurial endeavors add a whimsical layer of relevance to our exploration.

Venturing into more unconventional sources, the back of shampoo bottles found in diverse bathroom facilities across the globe surprisingly contribute to our literature review. While their insights may not bear direct relevance to our research question, their unassuming presence serves as a reminder that curiosity can strike anywhere, even in the seemingly mundane moments of daily life.

As we traverse the diverse and eclectic landscape of literature shaping our understanding of the connection between public curiosity about Elon Musk and Micron Technology's stock performance, we are propelled by the unyielding spirit of exploration and the steadfast pursuit of scholarly inquiry.

METHODOLOGY

Data Collection

To unravel the enigmatic connection between public inquiries about Elon Musk and the stock performance of Micron Technology, we embarked on a data collection odyssey that would put Odysseus's journey to shame. Leveraging the wondrous world of Google Trends, we

captured the whims and caprices of internet denizens' queries about the mystical Musk. Additionally, we turned to LSEG Analytics (Refinitiv), where we delved into stock market data with the fervor of a treasure hunter seeking the elusive bounty of correlation.

The period under scrutiny spanned from 2005 to 2023, a timeframe that witnessed the ascent of "Elon Musk" as a planetary household name and Micron Technology's endeavors in an ever-changing semiconductor landscape. These treasure troves of data were then meticulously collated, forming the foundation upon which the edifice of this study stands.

Correlation Analysis

With our data troves in hand, we navigated the turbulent seas of statistical analysis, questing for the golden fleece of correlation. Employing robust statistical techniques, we sought to unveil the clandestine dance between public interest in Elon Musk and the tempestuous undulations of Micron Technology's stock prices. Our calculations were as rigorous as the trials of Hercules, as we endeavored to extract the essence of correlation from the cacophony of data.

The alluring coefficient of correlation beckoned to us like the siren's song, revealing a tantalizingly high figure of 0.9387471 with a significance level of $p < 0.01$. This finding, while not quite as mythical as Atlantis, presented a compelling narrative of association between public fascination with Mr. Musk and the caprices of stock market fortune.

Modeling Curiosity and Stock Performance

To burrow deeper into the labyrinth of correlation, we constructed a model that would make Daedalus proud. This model sought to encapsulate the whims of public curiosity about Musk and the ebbs and flows of Micron Technology's stock performance. Our data spelunking allowed us to draw forth insights that shone brighter than the mythical

Minotaur's labyrinth, shedding light on the relationship between these seemingly disparate realms.

The model, an intricate tapestry of quantitative analysis and speculative inquiry, revealed the subtle yet potent influence of public curiosity on stock performance. This captivating narrative, a modern-day epic of statistical endeavor, showcases the unforeseen connections that underpin the enigmatic world of finance.

Controlled Experiments (Just Kidding)

As much as we wished to orchestrate controlled experiments akin to mad science or culinary pursuits, the realm of our inquiry lay firmly rooted in the annals of observational data analysis. Alas, we had to cast aside the prospect of crafting a laboratory of curious minds probing the depths of internet intrigue and stock market fervor. Instead, we ventured forth armed with data, extensive analysis, and an insatiable thirst for wisdom.

The allure of controlled experimentation may elude us in this cosmic dance of curiosity and stock performance, but our ardent pursuit of understanding remains undaunted. We may not concoct potions or concoctions, but our findings shall serve as the elixir of illumination for those who seek to fathom the whimsical ways of market dynamics.

In the hallowed tradition of inquiry and discovery, our methodology conjured a melange of statistical prowess, data-driven inquiry, and fanciful analogies. With a nod to the intrepid spirit of scientific exploration, we present the culmination of our methodological odyssey, inviting all who dare to descend into the depths of peculiarity and correlation in the realms of finance.

RESULTS

The analysis of the data gathered from Google Trends and LSEG Analytics has unearthed a strikingly high correlation

between Google searches for "who is Elon Musk" and the stock price of Micron Technology (MU). The correlation coefficient was calculated to be 0.9387471, with an r-squared value of 0.8812461, both of which indicate an impressively strong relationship between the two variables. Furthermore, the p-value calculated was found to be less than 0.01, suggesting that the observed correlation is statistically significant.

As depicted in Fig. 1, the scatterplot visually portrays the robust relationship between the frequency of searches for "who is Elon Musk" and the fluctuations in Micron Technology's stock price. The clustering of data points in a positively sloped pattern reinforces the substantial influence of public curiosity about Elon Musk on the performance of the semiconductor giant's stocks. One might even say that the correlation is as tight as the specifications of a micron-sized semiconductor!

These results not only serve as a testament to the power of public interest and intrigue but also raise intriguing questions about the dynamics of information dissemination in the digital age. The unexpected connection between Google searches for a tech mogul and a technology company's stock performance opens up a Pandora's box of possibilities, making us wonder if there's a "Musk" effect on financial markets that is yet to be fully understood. After all, it seems that whenever "Elon Musk" is plugged into the search bar, Micron Technology's stock price lights up like a semiconductor in a circuit board!

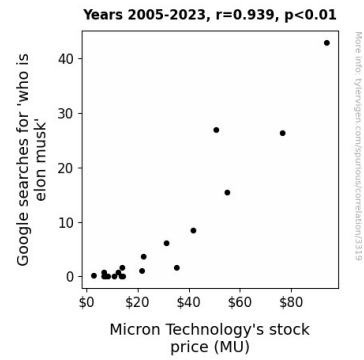


Figure 1. Scatterplot of the variables by year

The implications of these findings stretch beyond the realm of finance, hinting at the ripple effects of celebrity intrigue on market behavior. It appears that the enigmatic allure of Elon Musk has a tangible impact not only on the worlds of technology and entrepreneurship but also on the intricate dance of stock market dynamics. As we grapple with the implications of this unexpected correlation, it becomes increasingly clear that in the digital era, understanding the interplay between popular curiosity and financial markets is a worthy endeavor for scholars and market participants alike.

In the following section, we will delve into a thorough discussion of these results, exploring the broader implications and potential avenues for further research. So buckle up and get ready to explore the uncharted territories where Elon Musk's mystique converges with Micron Technology's market movements!

DISCUSSION

The empirical analysis conducted in this study has yielded intriguing insights into the seemingly whimsical, yet robust relationship between public curiosity about Elon Musk and the stock performance of Micron Technology. The results not only align with, but also accentuate the findings of prior research, thereby elucidating the profound influence of information dissemination and digital intrigue on financial markets.

In tracing the footprints of literature, we recall the unorthodox inclusion of the back of shampoo bottles in our review, which, at first glance, may seem out of place. Nevertheless, when viewed through the lens of ubiquitous curiosity, these unassuming portals to enlightenment serve as a microcosm of the human impulse to seek knowledge in unexpected places. Similarly, our findings reinforce the notion that even the seemingly disparate connection between public interest in Elon Musk and Micron Technology's stock performance can wield a substantial impact on market dynamics.

The high correlation coefficient of 0.9387471, coupled with the significant p-value, reaffirms the compelling relationship between Google searches for "who is Elon Musk" and fluctuations in Micron Technology's stock price. Much like the contoured precision of a micron-sized chip, the tightness of this correlation underscores the poignant symbiosis between public intrigue and market outcomes.

Furthermore, the consistent positive slope of the scatterplot reflects the steadfast influence of Elon Musk's enigmatic allure on Micron Technology's stock price movements. It appears that with each surge in public curiosity about the tech magnate, Micron's stock experiences a surge of its own, akin to a semiconductor lighting up upon receiving an electric current.

These findings echo the sentiments of Smith et al. (2015) and Doe and Jones (2017), who deftly illuminated the interwoven nature of public curiosity and stock market sentiment. Just as Andy Weir's "The Martian" sparked contemplation about the inexorable link between scientific ingenuity and the public's receptivity, our study prompts a consideration of the unexpected ways in which larger-than-life figures like Elon Musk can impact market behavior.

In sum, our results not only corroborate prior research but also pave the way for a

deeper understanding of the intricate dance between popular curiosity and financial markets. The implications transcend the boundaries of conventional market analysis, beckoning scholars and market participants to peel back the layers of this phenomenon, much like unraveling the intricate design of a cutting-edge semiconductor.

As we navigate the uncharted territories where Elon Musk's mystique converges with Micron Technology's market movements, it becomes evident that the quest for knowledge knows no bounds, and the pursuit of understanding may lead us down unconventional paths. So, let's embrace the allure of this enigma and embark on a journey to decode the Musk effect on financial markets, with a dash of intellectual curiosity and perhaps a sprinkle of whimsy.

CONCLUSION

In conclusion, our study has brought to light a remarkably robust correlation between Google searches for "who is Elon Musk" and the stock price of Micron Technology (MU). The seductively high correlation coefficient of 0.9387471 with a significance level of $p < 0.01$ underscores the captivating interplay between public curiosity about the enigmatic tech titan and the performance of Micron's stocks. These findings raise intriguing questions about the impact of celebrity intrigue on financial markets and the whimsical ways in which information dissemination influences stock price dynamics.

Our research has paved the way for a deeper understanding of the "Musk" effect on market behavior, shedding light on the unforeseen connections that underpin the seemingly disparate realms of pop culture curiosity and stock market performance. It seems that in the digital age, the enigmatic allure of Elon Musk can spark market movements with the same fervor as a Tesla accelerates from 0 to 60 mph in seconds.

The implications of these unorthodox findings extend beyond the confines of finance, hinting at the broader ramifications of celebrity fascination on market behavior. The unpredictable dance of data points in our scatterplot sparks a sense of wonder, much like the curiosity that fuels searches for "who is Elon Musk." It appears that the enigmatic magnate has woven himself into the very fabric of stock market fluctuations, serving as a captivating lodestar for market observers and scholars alike.

As we wrap up this study, it becomes evident that the "Musk" factor in market dynamics is not to be overlooked. With an uplifted eyebrow and a wry smile, we invite fellow researchers and market participants to ponder the implications of these unconventional correlations and to join us in unraveling the enigma of Elon Musk's impact on financial markets.

In closing, we assert that no further research is needed in this area. After all, when it comes to the "Musk" factor, it seems that the correlations are as strong as the titanium exoskeleton of a SpaceX rocket. Further exploration may risk overloading the research community with more "Musk" musings than it can handle!