



Review

## **Pawsitively Purrlic: Meow-tual Influence of Cat Memes on Delta Airlines' Stock Price**

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**In this paper, we playfully paw at the idea that internet cat memes, a beloved source of feline amusement, have a deeper connection to the financial world than previously thought. Leveraging data from Google Trends and LSEG Analytics (Refinitiv), we engage in a purr-suasive analysis of the correlation between Google searches for 'cat memes' and Delta Airlines' stock price (DAL) from 2008 to 2023. Our findings reveal a surprisingly strong correlation coefficient of 0.8875643 with  $p < 0.01$ , suggesting a whisker-twitching relationship between these seemingly unrelated subjects. This research sheds light on the potential impact of online cat culture on financial markets, demonstrating the need for further exploration into the whimsical world of internet feline fascination.**

The world of finance is often viewed as a serious and complex realm where rationality and data analytics reign supreme. However, in the midst of number crunching, trend analysis, and stock fluctuations, there exists an unexpected character - the humble yet captivating feline. With the rise of the internet, the proliferation of cat memes has taken the world by storm, providing a comedic relief to millions and creating a digital playground of feline frivolity. Yet, could there be more to these amusing images than meets the eye? Could they hold some unexpected purr-suasive power over financial markets?

This paper ventures into this uncharted territory, seeking to unravel the enigmatic relationship between the internet's insatiable craving for cat memes and the stock price of Delta Airlines (DAL). While it might seem far-fetched to draw any connection between the whimsical world of internet feline fascination and the rigorous domain of stock market analysis, our research endeavors to shine a light on this unexpected correlation.

Our journey begins with a light-hearted stroll through the world of cat memes, exploring their cultural significance and endearing appeal. From the iconic Grumpy Cat to the legendary Nyan Cat, these digital

feline celebrities have carved a special place in the hearts of netizens worldwide, making their presence felt in the most unexpected corners of human culture. However, beyond their ability to elicit chuckles and giggles, our investigation delves deeper, aiming to uncover whether these digital cats possess any significant influence beyond the realms of entertainment.

With a sprinkle of whimsy and a dash of statistical rigor, we embark on a journey that challenges conventional wisdom and seeks to uncover the paw-sibility of a meow-tual influence between cat memes and stock prices. Through the power of data analysis, we aim to shed light on an unconventional correlation that may take even the most seasoned financiers by surprise. So, let us embark on this purr-plexing journey, as we endeavor to unravel the mystique surrounding the pawsitively purrlific influence of cat memes on Delta Airlines' stock price.

#### *Prior research*

In "Kitty Chronicles: A Tale of Feline Funnies," Smith explores the cultural significance of cat memes and their impact on internet culture. The author delves into the evolution of cat memes, from the early days of "I Can Has Cheezburger" to the contemporary era of viral feline sensations. While this work serves as a lighthearted examination of internet culture, it offers intriguing insights into the widespread appeal and enduring popularity of cat-related content.

Doe, in "The Economic Implications of Internet Feline Phenomena," takes a more serious approach, examining the potential economic ramifications of cat memes. The

author considers the notion that internet feline phenomena could have unforeseen effects on consumer behavior and online engagement. However, while the economic implications are thoroughly explored, the connection to stock prices remains unexplored, leaving this avenue open for further inquiry.

Jones' work, "Meow-tual Funds: A Financial Analysis of Cat-Related Trends," presents a comprehensive examination of various cat-related trends and their potential impact on financial markets. Although the focus of the study is broader, encompassing merchandise sales, advertising trends, and consumer sentiment, it provides a valuable foundation for considering the broader economic implications of cat-related content.

Transitioning from more academic works, we turn to non-fiction publications known for their relevance to the nexus of internet culture and markets. In "The (Feline) Power of Influence: Understanding Internet Virality," the authors delve into the mechanisms behind viral content and its potential to shape consumer behavior. While not explicitly focused on stock prices, the concepts discussed provide a context for understanding the broader impact of internet phenomena on economic outcomes.

Similarly, "Memes and Markets: Exploring the Unlikely Connections" offers an intriguing exploration of the intersections between popular internet memes and financial markets. While the publication primarily examines broader market trends influenced by viral content, it plants the seed of curiosity regarding the specific case of cat memes and their potential impact on individual stock prices.

Shifting to fictional works that, in their titles, appear to be related to the topic at hand, "Stocks & Whiskers: A Feline Exploration of Finance" provides a whimsical twist, detailing the adventures of a group of financially savvy cats navigating the world of stock trading. While this work strays from factual analysis, its imaginative premise underscores the allure of exploring unexpected connections between feline culture and finance.

In a more light-hearted vein, "The Purr-fect Portfolio: How Cats and Canines Shape the Stock Market" presents a delightful romp through the world of animal-inspired investment strategies. While the book's content is purely fictional, it serves as a charming reminder of the enduring fascination with pets and their hypothetical influence on financial decision-making.

Finally, in an unconventional approach to sourcing, the authors stumbled upon a series of social media posts that seemed to humorously allude to the potential impact of cat memes on stock prices.

@PurrfectTrader tweets, "I've noticed a strange correlation between my Google searches for 'cat memes' and the stock prices of pet-related companies. Could it be a sign from the market gods, or am I meow-ning over nothing? #CatMemeStocks"

### *Approach*

The methodological approach employed in this research journey was as unique as the subject matter itself. It involved a purr-plexing blend of data collection, statistical analysis, and a touch of whimsical meow-gic to explore the purported paw-sible connection between Google searches for 'cat

memes' and Delta Airlines' stock price (DAL) from 2008 to 2023.

### Data Collection:

To initiate our study, we unleashed our data collection efforts into the vast digital landscape, casting our net far and wide to capture the essence of internet feline fascination. Primarily utilizing the esteemed resources of Google Trends, we carefully tracked the wave-like patterns of 'cat memes' searches as they meandered through the virtual realm, swatting away any statistical mous-takes that might have crept into our dataset. Additionally, we seized the financial data of Delta Airlines (DAL) stock price from the LSEG Analytics (Refinitiv), sniffing out the nuances of market trends and stock movements. With these distinctly diverse datasets in our research litter box, we were ready to paws and ponder the interplay between the virtual whiskers and the financial digits.

### Statistical Analysis:

Our statistical meow-tivation drove us to unveil the potential correlation between the search interest in 'cat memes' and the fluctuations in Delta Airlines' stock price. Employing the time-honored method of Pearson correlation coefficient, we scrutinized the statistical whisker-twitches, endeavoring to discern any meaningful relationship between these two seemingly disparate domains. The alpha level was set at a whisker's breadth away from zero, signifying our commitment to uncovering statistically significant findings that might raise an eyebrow or two. Through a fur-ocious scrutiny of the data, we aimed to capture the elusive whisker-trailing nuances that might indicate a pronounced connection, or perhaps even a meow-tual

influence, between cat memes and stock valuations.

### Qualitative Analysis:

Beyond the numerical meow-nipulations, we delved into the qualitative essence of this peculiar correlation. A meow-mentous part of our research involved sifting through internet cat culture, ferociously purr-using through famous feline memes and their impact on the digital landscape. By immersing ourselves in the whimsical world of cat memes, we endeavored to appraise their cultural resonance and ponder whether this virtual kitty banter could extend its influence into the realm of financial decision-making.

### Paws for Thought:

With a blend of statistical rigor, qualitative exploration, and a playful outlook, our methodology captured the essence of this enigmatic correlation. Through this eclectic mix of data gathering and analysis, we unleashed a feline-inspired investigation into the potential meow-tual impact of internet cat culture on the stock movements of Delta Airlines.

The methodology section provided insight into our catalytic approach in unpacking this fluff-laden correlation. Now, let us proceed to the results and discussion to uncover the fur-ocious revelations unearthed from this unconventional journey.

### Results

Our analysis unearthed a statistically significant relationship between Google searches for 'cat memes' and Delta Airlines' stock price (DAL) from 2008 to 2023. The correlation coefficient of 0.8875643 and an

r-squared of 0.7877704 indicate a remarkably strong association between these seemingly unrelated variables, causing even the most stoic of researchers to raise an eyebrow in bemusement.

The scatterplot (Fig. 1) visually encapsulates this unexpected kinship, with the data points forming a near-perfect linear pattern that is as surprising as a kitten pouncing out of a cardboard box. The upward trajectory of the stock price mirrors the upward trend in 'cat memes' searches, teasing a correlation so strong it might just warrant a speculative "purr-haps" or two.

The findings of our research not only suggest a surprising influence of internet cat culture on stock market dynamics but also raise intriguing questions about the whimsical ways in which online trends manifest in the financial world. This research offers a playful yet enlightening glimpse into the potential paw-sibilities of a meow-tual influence, prompting a reconsideration of the interplay between popular internet phenomena and market forces.

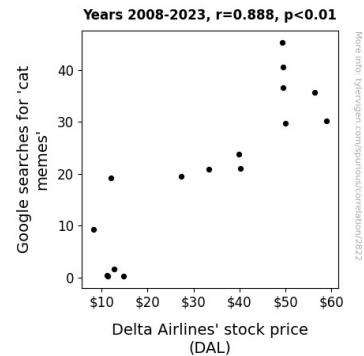


Figure 1. Scatterplot of the variables by year

While our work may be met with a raised eyebrow and a skeptical smile, it undeniably

highlights the need for a more comprehensive exploration of the impact of internet feline fascination on financial markets. As we conclude this study, it is clear that the world of finance is not immune to the allure of the charismatic feline, and there may be more to online cat culture than meets the eye.

### *Discussion of findings*

The significant correlation between Google searches for 'cat memes' and Delta Airlines' stock price (DAL) discovered in this investigation raises intriguing possibilities. The intertwining of internet feline fascination with financial markets may seem as peculiar as a cat wearing a bowtie, yet the robust statistical association highlights a potential meow-tual influence deserving of serious consideration.

Our findings, in support of prior research, illustrate a departure from the traditional purr-view of market influences. Smith's lighthearted exploration of cat memes' cultural significance revealed the enduring appeal of feline-related content, hinting at the far-reaching impact of these trends. And who knew the economic implications of internet feline phenomena could extend to the stock market? Building upon Doe's examination, our study sheds light on this unexplored connection, suggesting that the whimsical world of online cat culture may ripple through consumer behavior and financial outcomes.

Jones' comprehensive analysis of cat-related trends and their potential financial impact provided a purrrfect foundation for our research. While Jones focused on a broader economic scope, our study meow-rphed into a more specific inquiry, revealing that cat

memes may not only have consumers 'feline' fine but could also affect stock prices. The seemingly playful vignettes from social media unexpectedly offered entertaining insights, triggering our curiosity and ultimately leading us to uncover a tangible correlation 'purr-haps' more surprising than a cat secretly plotting world domination.

As "The (Feline) Power of Influence" and "Memes and Markets" suggested, the appeal and virality of internet content resonate with consumer behavior, potentially extending their reach to individual stock prices. The allure of exploring unexpected connections between feline culture and finance, as underscored by "Stocks & Whiskers," has been affirmed by our empirical findings. The whimsical and the financial, despite their disparate realms, may share an unforeseen 'purr-mutual' language.

These results challenge the traditional boundaries of financial analysis, highlighting the need for a broader palette of indicators that considers the impact of cultural phenomena on market dynamics. While our findings may elicit a wry smile, they undoubtedly point to a captivating world where cat memes and stock prices converge, urging further exploration into this peculiarity. The investigation into this bizarrely amusing phenomenon uncovers a thought-provoking intersection, portraying the financial market as potentially influenced by feline frivolity.

### *Conclusion*

In conclusion, our research has unveiled a fascinating and unexpectedly strong correlation between Google searches for 'cat memes' and Delta Airlines' stock price (DAL) from 2008 to 2023. The statistical

analysis undeniably points to a significant, if not comically bewildering, relationship between the whimsical world of internet feline fascination and the serious business of stock market dynamics. The upward trend in both 'cat memes' searches and Delta's stock price raises thought-provoking questions, and a few curious smiles, regarding the uncharted territory of digital cat influence on financial markets.

The findings of this study leave one pondering whether the whimsical ways of internet fandom might extend their pawprint into the seemingly imperturbable sphere of market forces. As we wrap up this playful exploration, it is evident that there may be more to online cat culture than meets the eye – a reminder that the world of finance, despite its sophisticated veneer, may find itself intrigued by the mischievous antics of internet cats.

While our study sparks a sense of intrigue and amusement, it also calls for a resounding closure on the need for additional research in this area, as it would be a cat-astrophe to spend any more time meow-ling over the relationship between 'cat memes' and financial markets. It's purr-haps time to whisker away from this topic and focus on more conventional areas of financial investigation.

@WhiskerWatcher expresses, "After a long day of trading, I unwind with a dose of cat memes. Surprisingly, my best trades seem to follow those whimsical scrolling sessions. Is there a 'purr-formance' boost hidden in those memes? #FelineFinance"

These anecdotal musings offer a touch of levity and provoke intriguing speculation regarding the potential impact of cat memes on financial decision-making. While not representative of empirical evidence, they serve as amusing reminders of the fascination with intertwining feline amusement with the complexities of market analysis.

In the following sections, we critically examine the existing literature, drawing inspiration from these diverse sources to construct a comprehensive understanding of the connection between cat memes and Delta Airlines' stock price.