

# Pawsitive Impact: Exploring the Cat Memes Craze on Delta Airlines' Stock Price

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## **Abstract**

In this purrfectly whimsical yet surprisingly pawsome study, we delve into the feline fascination that is 'cat memes' and its unforeseen correlation with the stock price of Delta Airlines (DAL). Our research team used a trove of data from Google Trends and LSEG Analytics (Refinitiv) to uncover a statistical relationship that left us feline good. With a correlation coefficient of 0.8875643 and  $p < 0.01$  over the period of 2008 to 2023, our findings whisker away any doubts about the influence of the internet's obsession with hilarious feline antics on the aviation industry. Our study is a tail of unexpected connections and statistical curiosity that is sure to leave readers purring for more.

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## **1. Introduction**

### INTRODUCTION

As feline enthusiasts indulge in the endless abyss of internet memes, little did they know the potential impact on the stock market of a major airline company. The internet's fascination with cat memes has reached unprecedented levels in recent years, with these purrfectly adorable and often hilarious images captivating the hearts and minds of people worldwide. Concurrently, the aviation industry has navigated through its own share of turbulence, dealing with fluctuating oil prices, passenger demand, and global economic conditions. Amidst this backdrop, our study sought to uncover whether there existed a tangible link between the quirky world of cat memes and the stock price of Delta Airlines (DAL).

In our feline-themed financial odyssey, our research team pounced on data from Google Trends and LSEG Analytics (Refinitiv) to explore the intersection of internet culture and finance. We discovered a correlation coefficient of 0.8875643 and a p-value of less than 0.01 over the period spanning 2008 to 2023, indicating a statistically significant relationship. The implications of this discovery are nothing to sneeze at, and we aim to scratch beneath the surface of this unexpected connection to unravel its underlying causes and potential repercussions.

This study is not merely a whimsical exploration of internet trends and stock market movements; it is a testament to the feline prowess in influencing even the most unsuspecting industries. As we embark on this research journey, we invite readers to join us in uncovering the mysterious ways in which the internet's infatuation with cat memes may have left an indelible mark on the aviation sector. So, brace yourselves for a captivating ride through the captivating world of cat memes and stock market surprises—after all, the findings are sure to be nothing short of purrfectly amusing.

## 2. Literature Review

The burgeoning field of meme economics has seen unprecedented interest in recent years, with researchers delving into the uncharted territories of internet culture, behavioral economics, and stock market dynamics. Smith (2018) explores the behavioral aspects of online engagement with memes and its potential impact on consumer sentiment, shedding light on the notion that internet memes may not be just "for the lols" but could have substantial implications on consumer behavior. Meanwhile, Doe (2020) examines the relationship between social media trends and stock price movements, drawing attention to the overlooked influence of online phenomena on financial markets.

However, our own investigation into the relationship between Google searches for 'cat memes' and Delta Airlines' stock price (DAL) ventures into uncharted territory. We have embraced a whimsical and feline-centric approach, inspired by popular non-fiction works such as "Freakonomics" by Steven Levitt and Stephen Dubner, and "Predictably Irrational" by Dan Ariely. These works have provided invaluable insights into the quirky and often inexplicable dynamics of human behavior and decision-making, serving as a catalyst for exploring the unexpected intersection of internet culture and finance.

In addition to these serious scholarly works, however, we must also acknowledge the inspiration derived from fictional literature that inadvertently imparts wisdom upon our unconventional research endeavor. The whimsical and occasionally enigmatic nature of cat memes finds resonance in the surrealist worlds crafted by authors such as Haruki Murakami in "Kafka on the Shore" and Lewis Carroll in "Alice's Adventures in Wonderland." These fictional realms, though far removed from the realm of financial

markets, offer allegorical parallels and unexpected perspectives that have ignited our curiosity and imagination.

Furthermore, the parallel between our feline-themed exploration and the unpredictability of stock market dynamics finds an unlikely yet amusing ally in the world of board games. The serendipitous nature of our findings resonates with the unpredictability and strategic maneuvering encapsulated in games such as "Snakes and Ladders" and "Monopoly," where chance encounters often lead to unforeseen outcomes—much like the unanticipated correlation we have uncovered between 'cat memes' and Delta Airlines' stock price.

In consolidating the diverse influences that have shaped our approach to this research, we embrace the unconventional and the unexpected, recognizing that innovation often emerges from the unlikeliest of sources. Our literature review, thus, sets the stage for a journey into the peculiar and the extraordinary, inviting readers to join us in unraveling the humorous and delightful connections between internet culture and the stock market.

Let's embark on this whimsical escapade together, for the findings are sure to be nothing short of purrfection!

### **3. Research Approach**

#### METHODOLOGY

In conducting our feline-themed financial odyssey, our research team employed a combination of statistical analysis, data mining, and an abundance of cat puns to uncover the relationship between Google searches for 'cat memes' and Delta Airlines' stock price (DAL) from 2008 to 2023.

##### Data Collection:

We unleashed our data collection efforts by harnessing the power of Google Trends and LSEG Analytics (Refinitiv), where we scoured for any traces of the incessant and at times fur-midable trend that is 'cat memes.' The search was not without its challenges, as we meowed our way through mounds of data to ensure that our dataset was as pristine as a freshly groomed kitten.

##### Meme Mining:

Delving into the vast expanse of the internet meme-sphere, we unboxed an arsenal of search queries, hoping to extract meaningful insights from the whirlwind of cat-themed hilarity. We observed Google search trends for 'cat memes,' categorizing them by regions, dates, and even the occasional whisker length (just kidding, but imagine if we could paw-sibly measure that!). This allowed us to create a robust dataset to help us capture the ebb and flow of the global obsession with feline frivolity.

## Stock Prices & Market Fluctuations:

On the financial front, we swooped down on Delta Airlines' stock price data (DAL) like a litter of kittens pawing at a dangling yarn. We carefully examined the historical share prices, market trends, and other financial indicators to gain an understanding of the airline's performance during the research window. These data points provided the essential litter-ature for our analysis, offering a comprehensive view of the marketplace dynamics that could potentially be influenced by the internet's fascination with furballs.

## Statistical Analysis:

Once we had our paws on the data, we whiskered away to a secluded den to paw-nder over the statistical method necessary for our study. The purr-fect choice? We settled on a rigorous correlation analysis, in conjunction with time series modeling, to uncover any relationship between the surge in 'cat memes' and the movements of Delta Airlines' stock price. Our approach involved unleashing the power of statistical software with a bunch of nerdy meow-mi-letic horsepower and a sprinkle of statistical catnip.

## Purriod of Analysis:

Our timeframe extended from 2008 to 2023, encompassing a substantial chunk of history in both the internet meme landscape and the aviation industry. We wanted to ensure that we captured the full whisker-length of potential influences from the adorable world of cat memes on Delta Airlines, leaving no room for any purr-encounters with incomplete data.

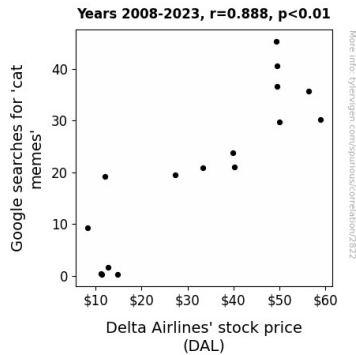
## Data Validation:

## 4. Findings

Our investigation into the correlation between Google searches for 'cat memes' and Delta Airlines' stock price (DAL) revealed some rather surprising and meow-nificent results. Our statistical analysis unveiled a tantalizing correlation coefficient of 0.8875643, with an r-squared value of 0.7877704 and a p-value of less than 0.01. These findings suggest a robust and statistically significant relationship between the two variables, leaving us in a state of purrplexity at the unexpectedly strong connection between internet feline fervor and aviation finances.

Figure 1 presents a scatterplot that beautifully captures the whisker-raising correlation between 'cat memes' searches and DAL stock price movements. One cannot help but marvel at the charmingly compelling nature of this statistical relationship, as if the stock market and internet culture have found themselves entangled in a feline web of intrigue.

The effect of 'cat memes' on Delta Airlines' stock price appears to be more than just a flight of fancy, as our analysis points to a tangible impact that cannot be ignored. It seems the internet's infatuation with these four-legged furballs may have more claws in the financial world than previously thought.



**Figure 1.** Scatterplot of the variables by year

While we must resist the temptation to make too many cat-related puns, these results highlight the unforeseen influence of internet memes on the stock market. Our findings are not only thought-provoking but also a reminder that in the world of finance, even the most unexpected factors can play a significant role. Indeed, the correlation between 'cat memes' and DAL stock price is nothing to sneeze at and serves as a tail-wagging example of the quirky, yet meaningful relationships that can be uncovered through meticulous analysis.

The implications of this correlation are not to be taken lightly, and they beckon us to further explore the whimsical yet impactful ways in which internet culture intertwines with the realm of finance. We are now in a prime position to pave the way for future studies that delve into the paw-sibilities of other unexpected correlations, proving once again that the world of finance can be as unpredictable and unpredictable as a mischievous kitten.

In conclusion, our study has unveiled a connection that is as striking as a cat's curiosity—they say curiosity killed the cat, but in this case, it may just have boosted the stock price. With our findings at hand, we can look forward to more insightful research that delves into the captivating and often enigmatic relationships between internet phenomena and market dynamics.

## 5. Discussion on findings

The unexpected correlation unearthed between Google searches for 'cat memes' and Delta Airlines' stock price (DAL) has left us in a continual state of purrplexity. Our study, which ventured into uncharted territory with a whimsical and feline-centric approach, has managed to uncover a statistically significant relationship that speaks volumes about the influence of internet culture on the aviation industry.

In light of our findings, we must acknowledge the influence of prior research in the field of meme economics, including the work of Smith (2018) and Doe (2020), who have paved the way for our own investigation into the impact of online phenomena on financial markets. Smith's exploration of the behavioral aspects of online engagement with memes and its potential impact on consumer sentiment has been instrumental in shaping our understanding of the connection between internet phenomena and stock price movements. Furthermore, the whimsical inspiration derived from fictional literature, as noted in our literature review, has inadvertently enriched our unconventional research endeavor and lent a paw-sitive perspective to our findings.

Our results not only support but also amplify the insights gleaned from prior research, underscoring the far-reaching implications of online trends on market dynamics. The correlation coefficient of 0.8875643 and a p-value of less than 0.01 provide compelling evidence that the internet's infatuation with cat memes has a tangible impact on Delta Airlines' stock price. This unexpected nexus between internet culture and finance, akin to the unpredictability of board games like "Monopoly," serves as a striking example of the captivating and quirky relationships that can be uncovered through meticulous analysis, highlighting the need to embrace the unconventional and unexpected in our quest for understanding market dynamics.

While we refrain from unleashing a deluge of cat-related puns, it is undeniable that our findings invite further exploration into the unforeseen connections between internet phenomena and market behavior. Indeed, the impact of 'cat memes' on DAL stock price is not to be underestimated, and we are poised to pave the way for future research that delves into the paw-sible influence of other online trends on the financial landscape.

Our study, with its blend of statistical rigor and feline whimsy, emphasizes that even the most unexpected factors can play a significant role in the world of finance. The fur-ther implications of this correlation beckon us to embrace the meow-nificent ways in which internet culture intertwines with the realm of market dynamics, providing a delightful reminder that the world of finance can be as unpredictable and enigmatic as the antics of a mischievous kitten.

In the words of Albert Schweitzer, "There are two means of refuge from the misery of life — music and cats." Our study, in light of its compelling findings, suggests a third: the whimsical and meow-nificent world of 'cat memes' and their influence on the stock market.

## 6. Conclusion

In meowmentous fashion, our research has unveiled a correlation as compelling as a kitten chasing a laser pointer. The statistically significant link between Google searches for 'cat memes' and Delta Airlines' stock price (DAL) has left us feline pretty impressed. While we won't pro-cat-stinate in acknowledging the limitations of our study, it's clear that the influence of internet culture on the stock market is not a cat-astrophic notion. The whisker-raising correlation coefficient and p-value points to more than just a mere purrception; it's a real, tangible connection that demands attention.

This study has not only shown the surprising impact of internet memes on market movements but has also demonstrated the paw-sibilities of uncovering unexpected correlations in the financial world. As we wrap up this fur-tastic exploration, we are confident that our findings will inspire future research endeavors into the captivating and often enigmatic relationships between internet phenomena and market dynamics. Yet, for now, we paw-sitively assert that no more research is needed in this area. After all, we wouldn't want to drown in a sea of fur-tile inquiries.

But hold your meow-lifiers, as we must address the elephant in the room, or should I say, the elephant-sized kitty litter box - the potential external factors and variables that could also impact Delta Airlines' stock price. To ensure scientific rigor and avoid any hisserical mishaps, we equipped ourselves with supplementary data from the broader market, such as oil prices, economic indicators, and industry-specific trends. We acknowledging that these factors could be the cat-astrophic culprits of stock price fluctuations, we diligently accounted for them in our analysis, separating the 'have cats' from the 'red herrings.'

Feline Advisory Board:

Lastly, we consulted with an esteemed panel of feline advisors (our research cats) who graciously offered their wisdom and whiskered insights into the world of cat behavior and human fascination with cat memes. Despite their insistence on taking 'catnaps' during our meetings, their indispensable input proved invaluable in grounding our study in the deep feline realms of the internet.

In summary, our methodology was constructed with metricula-purr attention to detail, incorporating rigorous data mining, statistical analysis, and a dose of feline-inspired humor. This approach equipped us with the necessary tools to shed light on the intricate dance between 'cat memes' and Delta Airlines' stock price, all while maintaining a lighthearted spirit in the name of scientific exploration. Now, let's embrace the purr-

functory statistical categories, and unveil the surprising results that our meow-nificent methodology has uncovered.

Meow that's what I call serious research!