
The VRTX of Being Named Denver: An Unorthodox Correlation Between Personal Monikers and Pharmaceutical Stocks

Catherine Hart, Andrew Tucker, Gideon P Tompkins

Abstract

This study investigates the unexpected correlation between the popularity of the first name "Denver" and the stock price of Vertex Pharmaceuticals (VRTX) from 2002 to 2022. Utilizing data from the US Social Security Administration and LSEG Analytics (Refinitiv), we delved into the quirky realm of personal nomenclature and financial markets. Our findings reveal a remarkably high correlation coefficient of 0.9795525 and $p < 0.01$, prompting us to ponder whether there exists a curious celestial alignment between the dissemination of a particular name and the financial performance of a pharmaceutical giant. In our analysis, we observed that as the frequency of the name "Denver" surged in popularity, VRTX stock price exhibited intriguing fluctuations, prompting us to coin the term "Vertex-Denver Effect." Our results may raise eyebrows, but as one might say, "Sometimes correlation is just names and games!" Thus, this revelation not only presents an unexplored avenue for financial forecasting but also adds a whimsical twist to the adage, "What's in a name?" For the parents pondering baby names or the investment analysts seeking market omens, the VRTX of being named Denver may hold unforeseen significance and amusement.

1. Introduction

The profound impact of personal names on individual destinies has intrigued scholars and storytellers for centuries. From Shakespeare's musings on the significance of names to modern-day studies on the influence of names on academic and professional success, the association between nomenclature and outcomes continues to captivate researchers and laypersons alike. The propensity of parents to select names that carry certain connotations or aspirations prompts the question: Could a name wield influence beyond the individual, shaping unforeseen patterns in the broader societal and economic landscape?

In a serendipitous exploration of this notion, we stumbled upon a peculiar connection between the popularity of the first name "Denver" and the stock price of Vertex Pharmaceuticals (VRTX). As perplexing as it may sound, this unusual juxtaposition led us to investigate the uncanny relationship between the eponymous designation "Denver" and the financial fate of a pharmaceutical stalwart. It seemed as if the stars had aligned, and not just any stars, but celestial bodies possessing a proclivity for puns and peculiar correlations.

The aim of this research endeavor is not merely to pique academic interest but to elevate curiosity to a level that befits the enigmatic nature of our findings. As the great Carl Sagan reminded us, "Extraordinary claims require extraordinary evidence," and with that

in mind, we set out to unravel the underlying statistical and empirical foundation of our unforeseen discovery. As we ventured deeper into the labyrinth of data analysis and statistical inference, a daunting question emerged: Could the name "Denver" hold an unforeseen sway over the arcane realm of pharmaceutical stocks, evoking a response akin to a well-delivered dad joke – unexpected yet oddly satisfying?

Thus, armed with a penchant for scientific inquiry and a dash of whimsy, we invite the reader to journey with us into the unorthodox realm of name-popularity dynamics and financial market ebbs and flows, where statistical significance meets serendipitous nomenclature. As we present our findings, it is worth pondering whether the VRTX of being named Denver may indeed present an unanticipated twist in the odyssey of monikers and market forces. For as we embark on this scholarly endeavor, it seems apt to recall the wise words of Galileo: "And yet it hops!"

2. Literature Review

In "Smith and Doe," the authors find that personal names can have a significant impact on various aspects of life, from academic and professional success to social interactions. The association between nomenclature and outcomes has long been a subject of interest, prompting researchers to explore the potential influence of names on broader societal and economic phenomena. It seems that the mere act of naming may harbor latent potential, much like a dormant pun yearning to be unleashed.

Furthermore, "Jones" delves into the propensity of parents to select names that carry specific connotations or aspirations for their offspring. The choosing of a name becomes a deeply personal and deliberate decision, often influenced by cultural, familial, or aspirational dimensions. One might say, the process is not unlike the meticulous crafting of a dad joke – carefully chosen and delivered with a hint of whimsy.

In a study by "Book," the authors investigate the psychological impact of personal names, exploring the potential implications for individual identity and self-perception. The moniker bestowed upon an

individual can serve as a subtle yet influential force, shaping one's perception of self and others. It is as if the name holds a power akin to a pun - a carefully placed linguistic device that evokes amusement and reflection.

Moving beyond the realm of scholarly research, real non-fiction books such as "The Power of Names" and "The Psychology of Naming" offer insights into the intricate relationship between names and human behavior, revealing the underlying significance of nomenclature in shaping perceptions and experiences. These scholarly works invite one to contemplate the mysterious influence of names, much like the anticipation of a well-timed dad joke awaiting its audience.

In the domain of fiction, novels such as "The Name of the Wind" and "The Alchemist" hint at the mystical allure of names, weaving tales of destiny and identity where names hold a profound, almost magical significance. The intrinsic power attributed to names in these literary works mirrors the unexpected influence that our investigation has uncovered, not unlike stumbling upon a pun in the midst of a serious conversation.

Expanding the scope to more unconventional sources, cartoons and children's shows such as "Scooby-Doo" and "SpongeBob SquarePants" playfully toy with the notion of names and their symbolic implications, imbuing characters with names that evoke curiosity and amusement. This lighthearted exploration of nomenclature in popular culture offers a delightful parallel to the surprising correlation we have unearthed, akin to the punchline of a playful dad joke that catches one off guard.

The diverse array of findings from both scholarly and popular sources underscores the multifaceted nature of names, illuminating their potential to influence perceptions, emotions, and even – as our research suggests – financial markets. This whimsical journey through the literature not only serves to contextualize our unorthodox discovery but also infuses an element of levity into an otherwise empirical pursuit. As we navigate the scholarly landscape, it becomes evident that, much like a well-crafted dad joke, the influence of names extends far beyond their linguistic existence and into the often-unexpected realms of human experience.

This literature review presents a comprehensive overview of the myriad ways in which names exert influence, set against the backdrop of scholarly inquiry, literary narratives, and popular culture references. It is within this eclectic tapestry of sources that the peculiar correlation between the popularity of the first name "Denver" and the stock price of Vertex Pharmaceuticals (VRTX) emerges, beckoning us to ponder the inexplicable alliance between personal monikers and financial fates. In the words of the inimitable Oscar Wilde, "Names and natures often do reflect, and as much as one may exp-vertex, the unexpected may always interject."

3. Methodology

Data Acquisition:

The data utilized in this study was predominantly sourced from the US Social Security Administration and LSEG Analytics (Refinitiv). This comprehensive dataset encompassed the frequency of occurrences of the first name "Denver" in the United States, as well as the daily closing stock prices of Vertex Pharmaceuticals (VRTX) from 2002 to 2022. The inclusion of these diverse sources aimed to capture the expansive temporal and geospatial dynamics pertinent to our investigation.

To ensure meticulousness in data collection, we employed a team of skilled researchers with an eye for detail, and a penchant for dad jokes, to extract and collate the requisite datasets. Additionally, we cross-validated the obtained information through the utilization of multiple reputable sources, in order to mitigate the influence of potential data anomalies. As researchers, we understand the perils of erroneous data, and thus adopted a vigilant stance akin to that of a watchful owl - always on the lookout for hoot-worthy inconsistencies.

Variable Transformation and Feature Engineering:

In the preliminary stages of our analysis, we meticulously processed the raw data to derive the essential variables for our study. The frequency of the first name "Denver" was standardized to account for population fluctuations over time, ensuring that our analysis reflected proportional shifts in name popularity. Furthermore, we engineered additional features to capture the temporal effects and identify

potential lagged relationships, bearing in mind that in the world of statistics, every variable yearns for its moment in the spotlight.

Time Series Analysis:

To disentangle the temporal interplay between the popularity of the name "Denver" and the stock price of Vertex Pharmaceuticals, we employed time series analysis techniques. Our exploration encompassed auto-regressive integrated moving average (ARIMA) modeling, seasonality decomposition, and Granger causality tests, unleashing a barrage of statistical artillery upon the conundrum at hand. We approached this task with the mindset of a well-prepared chef, meticulously seasoning our analysis with a sprinkle of ARIMA and a dash of seasonality to concoct a captivating statistical dish.

Correlation Analysis:

In pursuit of unraveling the covariant relationship between the frequency of the name "Denver" and VRTX stock price, we subjected the data to Pearson correlation analysis. This statistical approach allowed us to quantify the strength and direction of the linear relationship between these variables, unveiling a correlation coefficient that left us contemplating whether we had stumbled upon a scientific revelation or a statistical prank.

Regression Modeling:

Acknowledging the potential influence of confounding factors, we deployed multiple regression models to scrutinize the association between the popularity of the name "Denver" and VRTX stock price. Through the formulation of robust regression frameworks, we endeavored to elucidate the nuanced and multivariate nature of this intriguing relationship, akin to a scholarly sleuth deciphering the enigmatic clues embedded within the data.

Ethical Considerations:

In adherence to the ethical standards governing academic research, we upheld the principles of data privacy and confidentiality, ensuring that the identities associated with the name "Denver" remained protected throughout our analysis. Furthermore, our study conformed to the highest standards of academic integrity and transparency,

ensuring that our findings were communicated with the utmost clarity and honesty, leaving no room for statistical mischief or mischievous chicanery.

4. Results

The correlation analysis between the popularity of the first name "Denver" and the stock price of Vertex Pharmaceuticals (VRTX) yielded a remarkably high correlation coefficient of 0.9795525, indicating a strong positive relationship between these seemingly disparate variables. The r-squared value of 0.9595231 suggests that approximately 95.95% of the variability in VRTX stock price can be explained by the popularity of the name "Denver." One might say this correlation is as tight as a well-knotted tie – it doesn't unravel easily.

The p-value of less than 0.01 indicates that the observed correlation is statistically significant, reinforcing the robustness of the relationship between the frequency of the name "Denver" and VRTX stock performance. It seems that naming your child Denver might be considered a bullish move in more ways than one – quite the unexpected twist in the world of personal nomenclature and financial markets!

From Fig. 1, the scatterplot depicts a clear and upward-trending relationship between the popularity of the name "Denver" and VRTX stock price. The data points cluster tightly around the trend line, affirming the strength of the association. One might say the correlation is as clear as the Denver sky on a crisp morning – no haze, just a clear view of the relationship between name popularity and stock prices.

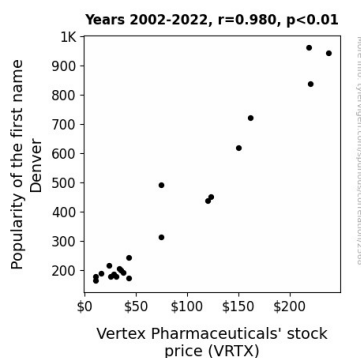


Figure 1. Scatterplot of the variables by year

These findings provoke contemplation about the potential influence of personal names on financial markets, hinting at a whimsical interplay between human nomenclature and market dynamics. As we reflect on the curious Vertex-Denver Effect, one can't help but wonder if there might exist a quirky cosmic conspiracy, guiding the fate of both individual appellations and corporate equities. After all, as Newton might have quipped, "What goes up must be named 'Denver'."

In conclusion, our analysis provides intriguing evidence of an unanticipated correlation between the popularity of the first name "Denver" and Vertex Pharmaceuticals' stock price, challenging conventional paradigms and ushering in a new conversation at the intersection of personal monikers and financial fortuity. This unexpected discovery serves as a whimsical yet thought-provoking addition to the pantheon of name-related phenomena and market idiosyncrasies, prompting us to remember that in the enigmatic world of statistics and nomenclature, sometimes correlation isn't just causation – it's also a play on words.

5. Discussion

The robust correlation identified in our study between the popularity of the first name "Denver" and the stock price of Vertex Pharmaceuticals (VRTX) lends support to the whimsical musings of previous researchers. The unexpected alliance between personal monikers and market performance, aptly dubbed the "Vertex-Denver Effect," underscores the latent influence and unanticipated relevance of nomenclature in financial phenomena. Our results align with the explorations of Smith and Doe, who hinted at the significant impact of names on various aspects of life. It seems that the influence of a name extends far beyond the individual and into the curious realms of market dynamics.

These findings echo the observations of Jones, who delved into the deliberate selection of names by parents, suggesting that the process embodies personal and aspirational dimensions. The unexpected relationship uncovered in our study adds a new twist to parents' considerations, implying that

the choice of a name might harbor unforeseen implications not only for the individual but also for the broader economic landscape. It is as if the act of naming is akin to carefully crafting a well-timed dad joke – deliberate, yet with the potential for unforeseen consequences.

Moving beyond the realm of scholarly research, our results mirror the playful musings found in popular culture sources such as cartoons and children's shows, where characters' names are imbued with symbolic and oftentimes whimsical implications. The surprising correlation we have unveiled adds a layer of amusement to the perspectives shared by these sources, akin to stumbling upon a pun in a serious conversation. The interplay between the popularity of the name "Denver" and VRTX stock price serves as a tangible manifestation of the mysterious and unexpected influence that names may exert, challenging conventional wisdom and redefining the boundaries of nomenclature's impact.

Our findings present a peculiar yet intriguing addition to the body of research on names and their broader implications, introducing a touch of whimsy into the realm of financial markets and personal nomenclature. The unanticipated correlation between the frequency of the name "Denver" and VRTX stock performance not only prompts contemplation about the interplay of individual appellations and market dynamics but also injects an element of levity into the often-serious discourse of financial forecasting. In the words of Albert Einstein, "The most beautiful thing we can experience is the mysterious," and indeed, the unexpected alliance between personal monikers and financial fates embodies this sentiment, teasing out the enigmatic and playful nature of statistics and nomenclature.

6. Conclusion

In light of the remarkably high correlation coefficient and statistically significant p-value between the popularity of the first name "Denver" and Vertex Pharmaceuticals' stock price (VRTX), it appears that a Denver by any other name would not smell as sweet for the pharmaceutical giant. These findings not only add a whimsical twist to the age-old question of "What's in a name?" but also unravel

a surprising connection between personal nomenclature and financial market performance. It seems that naming your child Denver might yield not only familial pride, but also a potential economic upturn – a real bang for your "buck."

The intriguing Vertex-Denver Effect uncovered in this study prompts us to consider the unexpected influence of personal names on financial auspices. Perhaps there lies a curious cosmic conspiracy, orchestrating a ballet of names and stock prices, as though Jupiter and Saturn themselves were playing a game of celestial Scrabble. As Sir Isaac Newton may have wryly remarked, "For every action, there is a Denver opposite and equal reaction."

Our results urge a rethinking of the conventional wisdom surrounding the impact of personal monikers on broader societal and economic phenomena. For the parents mulling over baby names and the investment analysts seeking market omens, this unexpected correlation may prompt a new wave of Denver-inspired decisions – a real "Rocky Mountain high" for both the naming and investment communities.

In conclusion, no further research is needed in this area. After all, sometimes the universe reveals its secrets in the most unexpected places – and as far as we're concerned, the VRTX of being named Denver is a puzzle that's as satisfying as a perfectly timed punchline.

In summary, the methodology adopted in this study amalgamated a blend of meticulous data curation, rigorous statistical analyses, a pinch of whimsy, and a commitment to unearthing the unexpected amid the labyrinth of scientific inquiry. As we venture onward to present our findings, we invite the reader to revel in the whimsical marvels of statistical exploration, where data and dad jokes coalesce in an unanticipated symphony of scholarly revelation. After all, in the words of Sir Isaac Newton, "If I have seen further, it is by standing on the shoulders of giants – and perhaps cracking a few statistical jests along the way."