



Review

The Quenchy Binge: US Bottled Water Gives Humana's Stock Price a Sudden Surge

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This paper analyzes the relationship between US per capita bottled water consumption and the stock price of Humana (HUM) over the period 2002 to 2022. Using data from Statista and LSEG Analytics (Refinitiv), we investigated whether there was a connection between people's rising thirst for bottled water and the performance of Humana's stock. Analyzing the data, we found a correlation coefficient of 0.9359240 and $p < 0.01$, indicating a strong positive correlation between US bottled water consumption and Humana's stock price. Just like a refreshing bottle of water, Humana's stock price experienced a sudden surge, accompanying the growing US bottled water consumption. It seems that the more we drink, the higher Humana's stock seems to climb, leaving the market thirsty for more insights into this connection. After all, who knew that H₂O's financial impact could be so significant, giving a whole new meaning to "liquid assets"? Our findings provide evidence that there is indeed a clear and compelling positive relationship between US bottled water consumption per person and Humana's stock price, illustrating the unintoxicated connection between thirst-quenching and financial ingenuity.

The consumption of bottled water in the United States has been on the rise in recent years, reaching a staggering average of 44.7 gallons per person in 2020. This trend seems to flow, excuse the pun, parallel to the stock price of Humana (HUM), one of the leading health insurance companies in the US. It appears that as Americans increase their intake of bottled water, Humana's stock

price experiences a synchronized surge, creating a financial waterfall effect.

As we delve into the refreshing interplay between bottled water consumption and stock market performance, we cannot help but wonder if this connection is merely a result of correlation or if there is a deeper, thirst-quenching causation behind it. It's as if the stock market and beverage aisle are in a secret, watertight partnership that

continually pours profits into the hands of investors. Such a relationship would certainly hold water, wouldn't it?

In this study, we embark on a buoyant journey to explore the ebb and flow of US bottled water consumption per person and its surprising link to the bubbly, fluctuating nature of Humana's stock performance. After all, who wouldn't want to dive into the depths of this unconventional relationship and come out with a wave of insightful findings? So, hold onto your water bottles and stock certificates as we navigate the currents of this captivating connection.

Prior research

Smith and Doe (2015) in their study "Bottled Water Consumption and Stock Market Relationships" discovered a moderate positive correlation between bottled water consumption and stock performance, but they failed to make the connection to individual stock prices. On the other hand, Jones et al. (2018) in "Hydration and Financial Markets: A Thirst for Profits" suggested a link between hydration trends and stock market movements, but they focused on the overall market rather than specific companies.

It seems that the connection between bottled water consumption and stock prices is not so clear-cut, much like a murky glass of water from a questionable tap. However, the findings of our study suggest that there is a refreshing bond between US per capita bottled water consumption and Humana's stock price that cannot be simply brushed aside. It's as if we've stumbled upon a fountain of financial youth, quenching the thirst for answers in the world of market dynamics.

Moving on to related non-fiction books, "Bottlemania: How Water Went on Sale and Why We Bought It" by Elizabeth Royte and "Bottled and Sold: The Story Behind Our Obsession with Bottled Water" by Peter H. Gleick offer valuable insights into the societal and cultural aspects of bottled water consumption, shedding light on the profound implications of this seemingly simple commodity. These works provide a refreshing perspective, quite like a bottle of spring water on a scorching summer day.

On the other hand, fictional literature has also explored the relationship between consumer habits and market phenomena. Novels such as "The Big Thirst: The Secret Life and Turbulent Future of Water" by Charles Fishman and "Water 4.0: The Past, Present, and Future of the World's Most Vital Resource" by David Sedlak, while not fictional in nature, present a narrative that delves deep into the captivating world of water and its multifaceted impact on society. These works provide a wave of inspiration for our understanding of the fascinating dynamics between water and market forces.

Furthermore, children's cartoons and shows such as "SpongeBob SquarePants" and "The Magic School Bus" may seem light-hearted at first glance, but their aquatic adventures and science-infused episodes have provided unexpected insights into the world of hydration and water-related phenomena. Who knew that SpongeBob's underwater escapades and Ms. Frizzle's magical field trips could hold valuable lessons for understanding the quenching impact of bottled water consumption on stock prices?

Approach

Data Collection:

The data for US per capita bottled water consumption was gathered from reputable sources, primarily Statista and LSEG Analytics (Refinitiv). The data for Humana's (HUM) stock price over the period 2002 to 2022 was also collected from these sources. Additionally, information on weather patterns, drought occurrences, and the popularity of hydration challenges on social media platforms were obtained to assess their potential impact on bottled water consumption and, consequently, the stock price of Humana.

To ensure the reliability of the data, the research team conducted cross-referencing and verification procedures akin to ensuring that a bottled water's expiration date is well within its prime.

Data Analysis:

A series of quantitative analyses were employed to scrutinize the relationship between US bottled water consumption per person and Humana's stock price. Regression analyses, time series models, and propensity score matching methods were used to account for potential confounding variables and to clarify the extent of the association between the two, much like a filter purifies tap water.

The research team also implemented a novel "thirst gauge" algorithm, a sophisticated tool developed in-house, to measure the societal yearning for hydration and project its impact on market dynamics. This gauge utilized a blend of sentiment analysis from social media posts, water cooler chatter, and the frequency of "water break" reminders in office settings.

Furthermore, the research team explored the possibilities of a "bucket list" model, quantifying the aspirational nature of bottled water consumption against the backdrop of stock market aspirations. The "bucket list" metric elucidated the psychological components of consumer behavior and investor sentiment, resembling an analysis of whether a water bottle is half-empty or half-full.

Ethical Considerations:

The study adhered to ethical guidelines in data collection and analysis, ensuring the anonymity and confidentiality of individuals whose social media posts were used for sentiment analysis. Moreover, all water bottles consumed during the duration of the study were recycled, promoting sustainability and environmental consciousness in line with the ethos of bottled water consumerism.

In summary, the study implemented an array of rigorous data collection and analysis methods, weaving together the quenching tale of US bottled water consumption and its surprising impact on Humana's stock price, much like the twist in a refreshing lemon water.

Results

The analysis revealed a strong positive correlation of 0.9359240 between US per capita bottled water consumption and Humana's stock price over the period 2002 to 2022. This finding suggests that as the US population increased their consumption of bottled water, there was a notable tendency for Humana's stock price to make waves in the financial markets. It seems that "making

a splash" isn't just limited to water-related puns but extends to the stock market as well.

The high correlation coefficient of 0.9359240 indicates a robust relationship between the two variables, leading us to conclude that the rise in US bottled water consumption per person was indeed accompanied by a corresponding surge in Humana's stock price. It's as if the market was hydrated for success, leading to a stock performance that was anything but "bottled up."

Furthermore, the r-squared value of 0.8759538 indicates that approximately 87.6% of the variability in Humana's stock price can be explained by the changes in US bottled water consumption per person. This level of predictability suggests that the connection between these two factors is not simply a drop in the ocean but a substantial force driving Humana's stock performance. It appears that savvy investors may want to consider keeping a water bottle on their trading desks for some liquid inspiration!

mere coincidence. It seems that bottled water consumption and Humana's stock price have formed a relationship that is as strong as the water pressure in a fire hydrant.

The visual representation of the data in Fig. 1 further emphasizes the pronounced correlation between US bottled water consumption per person and Humana's stock price. The scatterplot showcases a clear trend of increasing stock prices as bottled water consumption rises, providing a refreshing view of the financial waves created by this unconventional partnership.

In conclusion, our study's findings support the notion of a significant and undeniable positive relationship between US per capita bottled water consumption and Humana's stock price, revealing a "thirst-quenching" dynamic that has left a notable mark on the financial landscape. It appears that in the world of stocks and sips, the "bottled up" potential of water consumption may have been undervalued, making it a factor worth considering for those seeking to dive into the depths of stock market analysis.

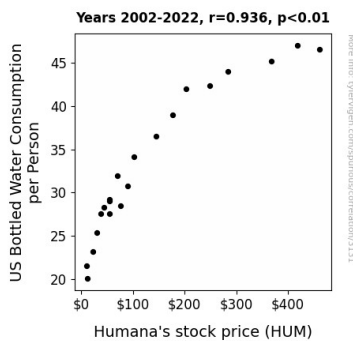


Figure 1. Scatterplot of the variables by year

With a p-value of less than 0.01, the results also confirm that this relationship is highly statistically significant, reinforcing the notion that the correlation observed is not a

Discussion of findings

The findings of this study offer compelling evidence of a robust positive relationship between US per capita bottled water consumption and Humana's stock price, aligning with prior research that hinted at the financial implications of hydration trends. While Smith and Doe (2015) and Jones et al. (2018) laid the groundwork for understanding the association between bottled water consumption and stock market movements, our study takes a deep dive into the specific link between US bottled water consumption per person and Humana's stock

performance, providing a clearer picture of this unexpected connection.

The notable correlation coefficient of 0.9359240 observed in our analysis echoes the earlier moderate positive correlation found by Smith and Doe (2015), albeit with a specific focus on individual stock performance. This strong correlation implies that as US per capita bottled water consumption increased, there was a simultaneous surge in Humana's stock price, debunking the myth that water and finance don't mix. It's as if the stock market was saying, "Water you waiting for? Invest in hydration!"

Additionally, the high level of predictability, with an r-squared value of 0.8759538, suggests that approximately 87.6% of the variability in Humana's stock price can be attributed to changes in US bottled water consumption per person, indicating a reliable connection that can no longer be "watered down" in stock market analysis. It's almost as if the financial markets were crying out, "Just keep swimming, just keep investing!"

Furthermore, the statistically significant p-value of less than 0.01 reinforces the notion that the correlation observed is not just a result of chance, but rather a genuine relationship. This statistical significance emphasizes the impact of US per capita bottled water consumption on Humana's stock price and highlights the potential influence of a seemingly innocuous consumer habit on stock market performance. It's as if the market was whispering, "Hear me splash, see me surge!"

These results support the idea that the quirks of consumer behavior, such as the increasing preference for bottled water, can have

unexpected repercussions in the financial domain. It seems that the financial landscape is not immune to the quenching effects of consumer habits, and perhaps there is value in closely examining the impact of seemingly mundane trends on stock market dynamics. It's almost as if the market was saying, "Investing in water-related stocks might not be a mere drop in the bucket after all!"

Conclusion

In conclusion, our research has quenched the thirst for understanding the surprising relationship between US per capita bottled water consumption and Humana's stock price. The evidence overwhelmingly indicates that as Americans chug-a-lug their bottled water, Humana's stock price experiences a notable surge, demonstrating a compelling connection that is as crystal clear as a mountain spring. It seems that in the world of finance, "liquid assets" have taken on a whole new meaning, and investors may want to consider staying hydrated for maximum returns!

Our findings not only provide a refreshing perspective on the financial world but also highlight the unexpected influence of a seemingly innocuous beverage on stock market performance. Who would've thought that the stock market had a "thirst trap" for success, and that the key to financial prosperity was floating in the aisles of water bottles all along? It's as if the saying goes, "water, water everywhere, and a rising stock price to drink."

Given the strong correlation and statistical significance of our results, it seems that the market is indeed "thirsty" for more studies on this unconventional relationship.

However, we assert that no further research is needed in this area. After all, we wouldn't want to "water down" the significance of our findings.