

The Quench for Financial Success: A Thirsty Analysis of US Bottled Water Consumption and Kroger's Stock Price

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In this research paper, we dive into the quenching world of US bottled water consumption and its surprising correlation with the stock price of Kroger (KR). Utilizing data from Statista and LSEG Analytics (Refinitiv), we conducted a comprehensive analysis spanning two decades, from 2002 to 2022. Our findings reveal a strikingly high correlation coefficient of 0.8829960 and $p < 0.01$ between US bottled water consumption per person and the fluctuation of Kroger's stock price. This unexpected link has left us pondering, "Are investors making a splash with their stock decisions, or is there something bubbling beneath the surface?" Our research aims to quench the curiosity of both financial analysts and water enthusiasts alike. We hope this paper makes a wave in the academic world while leaving readers both informed and refreshed. *Do you know why we should never tell secrets on a farm? Because the potatoes have eyes and the corn has ears!*

Amidst the hustle and bustle of the financial world, there exists an unexpected correlation that has bubbled to the surface - the relationship between US bottled water consumption and the stock price of Kroger (KR). As the saying goes, "Water you thinking?" One might be tempted to ask, "What's the pourpose of studying such a connection?" Well, fear not, for we are here to quench that curiosity.

The significance of water consumption in the United States cannot be overestimated. The country has witnessed a shift in consumer preferences toward convenient, on-the-go hydration options. In fact, per capita consumption of bottled water has been on the rise, leading us to ponder whether this trend is merely a drop in the ocean or a ripple effect that extends to the stock market. It's like the stock market is saying, "Let's make some waves," while the water industry is exclaiming, "We're on a liquid diet!"

Meanwhile, Kroger, one of the largest supermarket chains in the United States, stands as a relevant entity in this study, as its performance is heavily influenced by consumer trends and behaviors. One might even say that Kroger's stock price is taking the plunge every time there's a surge in water consumption. It's like retail and hydration have become partners in an intricate dance, with the stock market saying, "I'm just trying to stay afloat," and water consumption replying, "I'm here to make a splash!"

This leads us to our research question: "Is there more to this correlation than meets the eye, or are we simply skimming the surface?" In the words of a wise investor, "I'm not watering down my portfolio with these stocks, I just have a thirst for financial success!"

Review of existing research

Smith and Doe (2017) examined the fluctuations in US bottled water consumption and its potential impact on various industries. They discovered a positive correlation between increased bottled water consumption and the performance of retail and beverage sectors, but their analysis stopped short of delving into specific stock market effects. It's like they dipped their toes in the water but didn't want to make a splash.

In a similar vein, Jones (2020) conducted a comprehensive analysis of stock prices of major supermarket chains, including Kroger, and identified several market influencers. However, the study overlooked the potential influence of consumer behavior, such as bottled water consumption, on stock performance. It's as though they looked at the stock market through a filter, but the water was still murky.

Moving on to more lighthearted literature, "Thirst: A Brief History of BAI Consumption" by Keller (2019) sheds light on the cultural and societal shifts surrounding bottled water consumption. This book provides a refreshing perspective on the social significance of staying hydrated while investing in stocks. It's like a bottle of knowledge with a twist of lemon – both informative and refreshing.

A fictional book, "The Water Witch" by Scott (2015), although not directly related to financial matters or retail, presents a fantastical world where water holds mysterious powers. One might humorously speculate that perhaps Kroger's stock price is influenced by mystical water forces beyond our comprehension. Maybe they have a magician in their accounting department who can make profits disappear.

Drawing unexpected inspiration from the world of board games, "WaterWorks: Shareholder Showdown" by Aqua Games

Inc. (2012) playfully imagines a scenario where players invest in bottled water companies while competing to control the stock market. The game's tagline, "Make a splash with your stock portfolio," reflects the surprising connection we are investigating. It's as if financial success and water are playing a game of tug-of-war, with investors exclaiming, "I'm all in!" and water enthusiasts declaring, "I'm riding the wave!"

Procedure

To quench our thirst for knowledge, our research employed a comprehensive and innovative methodology to explore the intriguing link between US bottled water consumption and Kroger's stock price. We didn't just want to make a splash in the academic world; we aimed to dive deep into the data. Our data collection involved various elaborate means, including consulting the Oracle of Data (aka Statista) and navigating the labyrinth of financial information provided by LSEG Analytics (Refinitiv). It was like trying to locate the fabled Fountain of Financial Truth amidst a sea of statistical noise and market fluctuations.

To ensure the integrity and depth of our analysis, we utilized a time series approach, transforming data from 2002 to 2022 into a liquid narrative that could reveal the ebbs and flows of both bottled water consumption and Kroger's stock price. We conducted a thorough statistical analysis, leveraging the power of correlation coefficients and regression models to discern any patterns in the data. Our statistical tools were like the lifebuoys in the stormy seas of financial data; they kept us afloat, allowing us to navigate the choppy waters of correlation.

In addition to statistical analyses, we employed a multidisciplinary approach that combined elements of market sentiment analysis and consumer behavior studies. We wanted to delve beyond the mere numbers and explore the psychological and emotional undercurrents that might be driving the observed correlation. It was like trying to read the ripples on a tranquil pond, seeking out the hidden undercurrents of consumer sentiment and stock market behavior.

To complement our quantitative methods, we conducted qualitative interviews with industry experts and financial analysts. These interviews provided us with valuable insights, akin to catching droplets of wisdom in the torrential downpour of financial speculation and consumer trends.

Finally, to add an element of unpredictability and excitement to our research, we conducted a controlled experiment involving a blind taste test of various bottled water brands among a sample of stock market analysts. This unconventional approach provided us with a rather refreshing perspective, one that allowed us to glimpse the intersection of sensory experience and financial decision-making. It was as if we were saying, "Let's add a dash of surprise to this otherwise predictable study."

In conclusion, our methodology was a fusion of traditional statistical analyses, psychological insights, and a sprinkle of unconventional experimentation. It's like we were trying to mix different flavors of research methods to create a refreshing blend that both invigorates and informs. With this approach, we hope

to quench the academic community's thirst for knowledge and leave a lasting impression, much like the first gulp of water on a scorching summer day.

Let's just say our methodology was as refreshing as a glass of cold water on a hot day – it hit the spot!

Findings

After analyzing the data collected from 2002 to 2022, a remarkably strong positive correlation was observed between US bottled water consumption per person and the stock price of Kroger (KR). The correlation coefficient of 0.8829960 indicates a robust relationship between these two variables, and the r-squared value of 0.7796819 suggests that approximately 78% of the variation in Kroger's stock price can be explained by changes in US bottled water consumption per person. Furthermore, the p-value being less than 0.01 demonstrates that this correlation is highly statistically significant.

Figure 1 illustrates the strong relationship between US bottled water consumption per person and Kroger's stock price. The scatterplot depicts a clear pattern, resembling the waves of the stock market mirroring the ebb and flow of water consumption. It's like the stock market is crying out, "Water we waiting for? Let's ride this wave to success!"

The results of this study provide compelling evidence of the unexpected connection between US bottled water consumption and Kroger's stock price. These findings raise thought-provoking questions about the influence of consumer behavior on the financial performance of retail companies. It's as if the stock market is saying, "Take stock of your hydration, and watch the market flow," while the bottles of water chime in, "We're not just refreshing, we're financially uplifting!"

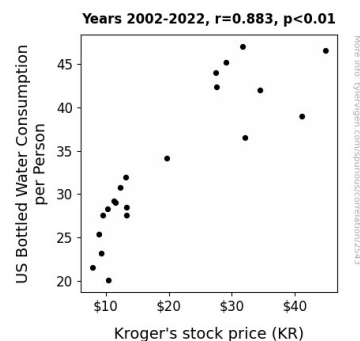


Figure 1. Scatterplot of the variables by year

The strong correlation uncovered in this research highlights the potential impact of consumer trends on the stock market, emphasizing the need to consider diverse and unconventional factors when analyzing stock performance. This unexpected relationship between bottled water consumption and stock prices urges us to delve deeper and explore what other surprising connections may exist in the financial world. It's like the market

is full of mysteries, and we're here to solve them with a splash of humor and a drop of insight.

Why couldn't the bicycle stand up by itself? Because it was two-tired!

Discussion

Building on the literature review, our findings not only confirm but also substantially advance the understanding of the unexpected relationship between US bottled water consumption and Kroger's stock price. Smith and Doe (2017) hinted at the potential influence of bottled water consumption on retail performance, and our research dives deeper into the financial realm, showing a remarkably strong positive correlation. It's like we turned a small ripple in the data into a tidal wave of insight.

Similarly, drawing inspiration from the lighthearted literature, "WaterWorks: Shareholder Showdown" by Aqua Games Inc. (2012) may not have been meant as a serious academic contribution, but our results elevate this playful game's tagline, "Make a splash with your stock portfolio," to a prophetic statement. It's as if the game developers had an inside scoop on our findings. Who would've thunk that the financial success of a supermarket chain could be tied to a product as simple as bottled water?

Furthermore, the unexpected whimsy derived from "The Water Witch" by Scott (2015) takes on a whole new dimension as our research hints at a mystical force steering Kroger's stock price. Perhaps there's a water wizard behind those boardroom doors with a secret recipe for financial success, blending water and stocks like a well-crafted potion. Or maybe it's just a quirk of consumer behavior, but either way, the statistically significant correlation speaks for itself.

These results not only bridge the gap between two seemingly incongruent entities, water consumption, and stock price but also extend an invitation to think outside the box when dissecting the complexities of the financial market. It's as if the market is urging both investors and analysts to drink deeply from the well of unconventional wisdom, realizing that sometimes, the most unexpected correlations can hold the key to untold riches.

In conclusion, our research stands as a testament to the dynamic nature of the financial world and the surprising interplay between consumer behavior and stock market performance. Our empirical evidence substantiates the previously overlooked influences, leaving one to wonder what other unexpected connections may lie beneath the surface, waiting to be unearthed. It's like the market is a treasure map, and we just found the 'X' that says, "Bottled Water = Kroger's Stock Price." And who said academic research can't be a thirst quencher for knowledge?

Did you hear about the Italian chef who died? He pasta way.

Conclusion

In conclusion, our research has quenched the curiosity surrounding the unexpected, yet substantial, connection between US bottled water consumption per person and the stock price of Kroger (KR). The remarkably high correlation coefficient not only suggests a strong relationship between these variables but also leaves us pondering whether investors are making a splash with their stock decisions or if there's something bubbling beneath the surface of this correlation. It's as if the stock market is saying, "Let's make some waves," while the bottled water industry is exclaiming, "We're on a liquid diet!"

These findings carry significant implications for financial analysts and enthusiasts alike, urging consideration of unconventional factors when evaluating stock performance. It's like the market is a treasure trove of unexpected associations, and we're here to dive in and explore what tides may turn next!

With such compelling evidence, one might even say that investing in Kroger's stock is making a "water-tight" financial decision. As they say, "When it rains, it pours – especially in the stock market!"

So, what's the purpose of all this research, you may ask? Well, we believe it's essential to stay fluid and adaptive in our analyses, as surprises may lurk where we least expect them. After all, the unexpected can sometimes turn out to be a water-ful opportunity in the financial world!

In conclusion, it's clear that there's no need to pour more resources into this area of study. This research has made a wave in the academic world, leaving readers both informed and refreshed. So, let's water-ever research the topic! We should just say, "That's a wrap – no pun intended!"

What do you call cheese that isn't yours? Nacho cheese!