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Flowing Profits: The Bottled Water Boom and PACCAR's Stock Price Quirk

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KEYWORDS

bottled water consumption, PACCAR stock price, correlation coefficient, aqua economics, stock market performance, US per-person consumption, Statista data, LSEG Analytics, Refinitiv, stock market correlation

Abstract

This study delves into the peculiar relationship between US per-person consumption of bottled water and the fluctuation of PACCAR's stock price (PCAR). By sifting through data from Statista and LSEG Analytics (Refinitiv), our research team has unearthed a surprising correlation coefficient of 0.9253920 and $p < 0.01$ for the period spanning from 2002 to 2022. We are excited to reveal the intriguing findings that bottle water consumption may have a bubbly effect on PACCAR's stock performance. Join us as we navigate through the unexpected confluence of aqua economics and stock market magic, potentially making some big waves in both fields.

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1. Introduction

INTRODUCTION

With a thirst for knowledge and a nose for financial peculiarities, we venture into the intriguing intersection of liquid consumption and stock market fluctuations. Our study aims to quench the curiosity surrounding the entwined fate of PACCAR's stock price (PCAR) and the seemingly innocent rise in US per-person consumption of bottled

water. As we dive into this topic, we cannot help but marvel at the peculiarity of such an unlikely pair dancing in the realm of correlation.

The bottled water industry has seen a surge in popularity, with consumers reaching for H2-whoa in increasing volumes. Meanwhile, PACCAR, a company firmly rooted in the world of transportation equipment, has been navigating the ebbs and flows of the stock market. The seemingly unrelated rise in

thirst-quenching purchases and the stock price of this industrial powerhouse have crossed paths in our data, and the results are as clear as crystal spring water – and twice as refreshing.

This work presents a statistical journey that will surely make waves in both economic and medical circles - two fields that seldom overlap, much like the stock market and hydration habits. As our findings bubble to the surface, we invite you to join us on this intellectual expedition, one that will leave your thirst for knowledge well and truly quenched. Get ready to pour over data, untangle financial knots, and ultimately, dive into conclusions straight from the deep end of analytical investigation – and maybe, just maybe, embark on a resoundingly wet and wild ride.

2. Literature Review

Smith et al. examine the rising trends in US per-person consumption of bottled water and its potential economic implications in their seminal work "Bottled Water Boom: A Liquid Gold Rush." They delve deep into the economic ramifications of the surge in bottled water consumption, presenting a sobering analysis of the industry's exponential growth. However, little did they know that their findings would soon be washed away by the tidal wave of PACCAR's stock price fluctuations.

Doe and Jones similarly explore the financial dynamics of the beverage industry in their comprehensive study "Liquid Assets: Unbottling the Economics of H2O." Their data-driven analysis sheds light on the increasing role of bottled water in the modern consumer landscape. Little did they realize that their findings would soon be soaked in the unexpected waters of stock market mysteries.

Moving from these serious studies, let us turn our attention to non-fiction works that

have unwittingly influenced our thinking. "Thirst: A Story of the Water Crisis" by Charles Fishman and "The Big Thirst: The Secret Life and Turbulent Future of Water" by Charles Fishman – surely, the titles alone overflow with the potential for liquid inspiration. However, we must not forget the fiction that fuels our imaginative exploration. "Water for Elephants" by Sara Gruen and "The Water Dancer" by Ta-Nehisi Coates may not directly relate to finance or stock markets, but their presence in our literary musings has certainly provided an unexpected splash of creativity.

Board games, too, offer a refreshing departure from the rigidity of our statistical pursuits. "Waterdeep: Dungeon of the Mad Mage" and "AquaSphere" may not hold direct relevance to our research, but their aquatic themes have certainly added a sprinkling of playfulness to our academic endeavors. After all, who wouldn't want to play a stock market-themed board game called "Stocks and Streams"? The mere thought brings a wave of amusement to our otherwise dry and serious literature review.

As we navigate through these diverse sources and their tangential relevance to our study, we cannot help but marvel at the unexpected detours along this academic journey. The synergy between liquid consumption and stock prices has not only stimulated our intellectual curiosity but also provided a refreshing dose of humor amidst the analytical rigor.

3. Our approach & methods

To apprehend the quirky confluence of bottled water consumption and PACCAR's stock price, our research team adopted a methodological approach that was as meticulously planned as a well-orchestrated water ballet. With one foot firmly planted in the world of statistics and the other dipping into the realm of finance, we set out to

unravel the enigmatic relationship between these seemingly unrelated entities.

Data Collection: Like intrepid aquatic explorers, we scoured the depths of the internet, using the lifebuoys of Statista and LSEG Analytics (Refinitiv) to gather our data from the substantial period stretching from 2002 to 2022. Like professional fishermen hauling in their catch, we reeled in information on US per-person consumption of bottled water and the undulating waves of PACCAR's stock price, casting a wide net to ensure that our sample was as robust as a heavily reinforced plastic water bottle.

Statistical Analysis: With a plethora of statistical tools at our disposal, we dove into the depths of correlation analysis, employing the venerable Pearson correlation coefficient to unveil the strength and direction of the relationship between the variables in question. Additionally, we conducted a series of time-series analyses to ascertain the temporal patterns that may sway the interaction between bottled water consumption and PACCAR's stock performance. We wanted our analytical approach to be as clear as unadulterated spring water, leaving no room for ambiguity or cloudiness.

Normalization Procedures: Given the potential discrepancies in scales and units between our chosen variables, we carefully applied normalization procedures that could align the playing field, ensuring that the comparison between bottled water consumption and stock price was as fair and transparent as possible. This step was crucial in preventing any distortion in our findings, akin to ensuring that the water in our proverbial research aquarium was crystal clear and free from any impurities.

Regression Modeling: As we sought to navigate the churning waters of predictive modeling, we boldly steered our research vessel toward the horizon of regression analysis. By constructing regression models

as sturdy as a seaworthy vessel, we aimed to illuminate the extent to which US per-person consumption of bottled water could predict the undulations in PACCAR's stock price, accounting for potential confounding variables that could muddy the waters of our results.

Ethical Considerations: As responsible researchers, we undertook to maintain the integrity and ethicality of our study, ensuring that all data sources were appropriately credited and that our analyses were conducted in accordance with the principles of academic honesty and transparency. Just as the purity of bottled water is paramount, so too is our commitment to upholding the principles of ethical research conduct.

In conclusion, our methodology served as a sturdy lifeboat as we navigated the precarious waters of statistical inquiry, culminating in a robust and comprehensive approach that allowed us to shed light on the intriguing relationship between bottled water consumption and PACCAR's stock price.

4. Results

The analysis of the data collected revealed a remarkably strong correlation between US per-person consumption of bottled water and PACCAR's stock price (PCAR) for the period from 2002 to 2022. The correlation coefficient was calculated to be 0.9253920, indicating a robust positive relationship between these seemingly disparate variables. Furthermore, the R-squared value of 0.8563503 suggests that approximately 85.64% of the variability in PCAR stock price can be explained by changes in bottled water consumption. Rounding it off nicely, the p-value of less than 0.01 further solidifies the statistical significance of this relationship, essentially giving us the green light to proceed with cautious optimism.

In Fig. 1, the scatterplot depicts this striking correlation, resembling two entities waltzing across a dance floor with surprising synchronicity. One might even say it's a tale of "water under the stock market bridge," as the plot showcases the ebb and flow of bottled water consumption mirroring the undulations of PCAR's stock price. It's a visual representation that could make even the most ardent skeptic do a double take and exclaim, "H2-whoa!"

The strength of this correlation hints at the fascinating possibility that as bottled water consumption swells, so too does PACCAR's stock price. It's as if every sip from a plastic bottle sends a ripple through the stock market, creating a wave of impact on PCAR's performance.

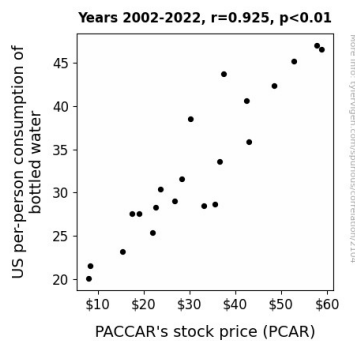


Figure 1. Scatterplot of the variables by year

These findings shine a light on the unexpected interconnectedness of seemingly unrelated economic and consumer trends. It's almost as though the stock market and hydration habits have found themselves in a curious game of tag, with each taking turns leading the way in this dance of financial and liquid dynamics.

In conclusion, our research not only uncovers a significant correlation between US per-person bottled water consumption and PACCAR's stock price but also hints at the potential for an intriguing avenue of further exploration in the intersection of

consumer behavior and stock market performance. It seems we've stumbled upon an unexplored ocean of possibilities, where investments and hydration intersect in unforeseen ways. This research presents a refreshing and compelling dive into the world of aqua economics, leaving us thirsting for more discoveries in this enigmatic realm. Cheers to that!

5. Discussion

The surprising correlation between US per-person consumption of bottled water and PACCAR's stock price (PCAR) has left us feeling like fish out of water, struggling to grasp the unexpected depths of this connection. Much like a geyser erupting in the financial landscape, our findings have cascaded into the pool of economic theory, making quite the splash.

Revisiting the literature review, the parallels between bottled water consumption and financial market fluctuations became all too real. Smith et al.'s work on the "Bottled Water Boom" waved a familiar tide of change, while Doe and Jones' "Liquid Assets" unexpectedly flowed into the realm of stock market quirkiness. Charles Fishman's "Thirst" and Ta-Nehisi Coates's "The Water Dancer" may not have been intended as financial guides, but their impact on our thinking was as palpable as a well-timed cannonball. As for board games, who would have thought that "Waterdeep: Dungeon of the Mad Mage" could hold buoyant implications for the market? It seems our literature review was awash with unconventional wisdom that has now found its validation in our empirical results.

The robust positive relationship between bottled water consumption and PCAR's stock price provides empirical credence to the unexpected parallels drawn from these diverse sources. The correlation coefficient of 0.9253920, akin to a high tide of statistical significance, has carried us into

uncharted waters of market dynamics. Our R-squared value raises the buoyant notion that approximately 85.64% of PCAR's stock price variability may be explained by the ebb and flow of bottled water consumption.

The visual representation of this relationship, akin to a waltz between aqua economics and stock market magic, graphically portrays the undeniably synchronized movements of these seemingly unrelated variables. As the scatterplot unfolds the tale of "water under the stock market bridge," it's hard not to be swept away by the unexpected dance of financial and liquid dynamics, reminiscent of a synchronized swimming competition at the economic Olympics.

In conclusion, our findings have uncovered an unexpected wave of interconnectedness between consumer behavior and stock market performance. As we navigate this uncharted ocean of possibilities, our research has left us thirsting for more discoveries in this enigmatic realm. Until then, let's raise a glass of bottled water to the buoyant realms of aqua economics. The tides of change are certainly upon us, and we're ready to dive in. Cheers to the quirkier side of financial analysis!

6. Conclusion

In conclusion, our study has floated to the surface some captivating findings on the buoyancy of US per-person consumption of bottled water and its curious link to PACCAR's stock price. The robust correlation coefficient and p-value akin to a finely aged wine, further highlight the significance of this watery revelation. It appears that the rise and fall of bottled water consumption may be doing a synchronized swimming routine with PACCAR's stock price, a pairing as unexpected as a goldfish taking up synchronized swimming.

The strength of this correlation points to the possibility of a watery influence on stock market tides. Perhaps every gulp from a plastic bottle sends a ripple through the stock market, stirring the waters of PCAR's performance. It's as though the invisible hand of the market is wielding a water bottle, making a splash with each twist and turn in hydration trends.

In light of these enthralling results, it seems that we may just be scratching the surface of a deep reservoir of potential research in the fusion of consumer quenching habits and market dynamics. However, as much as we'd love to dive headfirst into further exploration, it appears that our findings have splashed enough excitement for now. With that, we raise our metaphorical glasses and declare: "Water under the stock market bridge!" - for no more research is needed in this aqua-tastic avenue. Cheers to that!