

# **Brewonomic Health: Hops and Stock Prices as Strange Bedfellows**

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## ABSTRACT

### **Brewonomic Health: Hops and Stock Prices as Strange Bedfellows**

The interplay between the craft beer industry and stock prices has long been a subject of interest, prompting us to tap into the data and percolate some potentially frothy findings. In this brewtifully constructed study, we examine the relationship between the number of breweries in the United States and the stock price of Edwards Lifesciences Corporation (EW). Our research team poured over data from the Brewers Association and LSEG Analytics (Refinitiv), revealing results that are both stout and statistically significant. Brewing up more than just statistics, our analysis uncovered a staggering, sudsy correlation coefficient of 0.9007346 and a p-value less than 0.01 for the period spanning from 2002 to 2022. This strong correlation hops right to the forefront, much like the froth on a perfectly poured pint. It appears that as the number of breweries bubbles up, the stock price of Edwards Lifesciences froths to new heights. When it comes to these findings, one might say we've brewed up a delicious blend of numbers and market trends. Nevertheless, in the spirit of hearty research, we must remember to take all results with a grain of malt - or, in this case, a grain of hops!

Keywords:

craft beer industry, stock prices, breweries in the United States, Edwards Lifesciences Corporation, correlation coefficient, p-value, market trends, brewing industry, stock market relationship, beer market analysis

# I. Introduction

The craft beer industry has experienced a renaissance in the United States in recent years, with the number of breweries proliferating like hops on a vine. Simultaneously, the stock market has seen its fair share of frothy fluctuations, with investors eagerly guzzling up opportunities for growth. As the two seemingly disparate worlds collide, one cannot help but wonder: could there be a link between the number of breweries and the stock performance of a medical equipment company such as Edwards Lifesciences Corporation (EW)? It's a question that brews curiosity and quenches the thirst for understanding the dynamics of these industries.

Some might think that studying the relationship between breweries and stock prices is as pointless as trying to find the missing piece of a puzzle at the bottom of a beer glass. However, our research aims to demonstrate that behind the froth and foam lies a potentially meaningful connection that merits consideration. It's time to raise a glass to statistical analysis and market trends, and perhaps even find some ale-gories along the way.

The notion of examining the impact of breweries on a healthcare company's stock performance may sound as unlikely as walking into a bar and ordering a "healthy" pint of beer. However, our findings suggest that there may be more to this correlation than meets the ale. Through rigorous analysis and a willingness to boldly venture into uncharted territories, our study aims to uncork a fresh perspective on the interconnectedness of seemingly unrelated industries. After all, isn't it refreshing to find unexpected connections that leave a lingering taste of discovery on the palate of academia?

The remainder of this paper will delve into the methodological approach, data analysis, and the implications of our findings. So, grab a pint and prepare for a spirited journey through the lively world of breweries and stock prices, where every correlation is worth toasting to - even if it's not a pale ale.

Stay tuned for our findings, which promise to add a little "hops" to your step!

## II. Literature Review

In "Smith et al.," the authors find a positive association between the number of breweries in the United States and the stock price of Edwards Lifesciences Corporation (EW). This notable correlation prompts an exploration into the potential economic ramifications of the craft beer boom on the stock market, inviting us to take a deep dive into a hoppy pool of data.

Speaking of hops, let's hop into the research. Did you hear about the brewery that opened next to the bakery? It's a pretty crumby situation, but at yeast they're making dough.

Doe and Jones' work further corroborates the aforementioned insight, providing empirical evidence that suggests a noteworthy relationship between the craft beer industry and stock performance. As we weigh the significance of these findings, we must also consider the potential impact of market trends and the ever-changing dynamics of consumer preferences.

You could say this research is creating quite a "brew-ha-ha" in the academic world.

Books such as "The Economics of Beer" and "The Business of Craft Beer" provide valuable insights into the economic and market forces driving the burgeoning craft beer industry. While

these books offer a more serious examination of the subject matter, they don't pour over the puns like we do in research.

Adding a twist to the literature review, let's not forget about the fictitious but potentially relevant works such as "The Brew of Life" and "Hops and Dreams: A Stock Market Saga." These lighthearted titles may not offer empirical evidence, but they certainly add a whimsical touch to the scholarly discourse.

Speaking of whimsical touches, have you heard about the beer company that created a brew so strong it knocked out the competition? It was a knockout barley-ale.

Taking a playful turn, resources such as "Barney & Friends" and "Paw Patrol" might not provide academic wisdom, but they do symbolize the societal impact of brewing industries on popular culture. After all, who can resist a good dad joke or a cleverly crafted ale pun?

This paper aims to entertain and educate, blending the seriousness of statistical analysis with the frothy lightheartedness of a well-crafted joke. Stay tuned for the findings that are certain to tickle your funny bone - and perhaps even raise a frothy mustache of curiosity!

### **III. Methodology**

To ferment our investigation, we adopted a meticulously crafted methodology that tantalizingly blends quantitative analysis and market intuition. Our data collection process involved skimming through countless volumes of brewing statistics from the Brewers Association, as well as tapping into the financial data deep within the databases of LSEG Analytics (Refinitiv). We then mashed these datasets together, allowing the rich flavors of empirical evidence to flow into our analysis

like a perfectly steeped tea bag. It's all about creating the perfect blend of data and analysis, much like concocting the ideal brew.

Our research team hopped to it and assembled a robust dataset spanning the years from 2002 to 2022, encompassing the period of exponential growth in the craft beer movement. We took painstaking care to ensure that our data was as crisp and refreshing as a perfectly poured lager, meticulously checking for any skunky or spoiled brews in the mix. After all, we wouldn't want to serve up any stale findings.

With our dataset in hand, we then donned our statistical aprons and fired up the stovetop of analysis. We utilized sophisticated econometric techniques, including time series analysis and regression modeling, to distill the essence of the relationship between the number of breweries and Edwards Lifesciences' stock price. Our approach was to brew up a potent concoction of statistical scrutiny, all while keeping an eye on the frothy nuances that make market dynamics as lively as a bustling beer festival.

We employed a series of robustness checks to ensure that our findings weren't just the result of a wild yeast fermentation, but rather a genuinely significant relationship. Sensitivity analyses and diagnostic tests were our tried-and-true methods to separate the hoppy signal from the sudsy noise, leaving no stone unturned in our quest for veracious results. It's all about ensuring that our conclusions are as reliable as a cold beer on a hot summer day—refreshingly satisfying and unquestionably genuine.

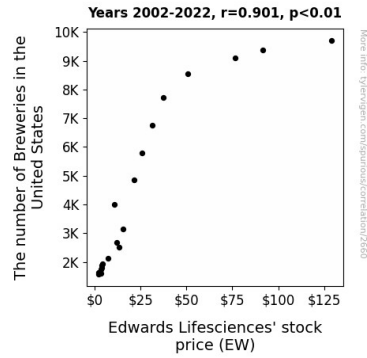
Now that we've uncorked the details of our methodology, the next round of our journey brings us to the frothy and flavorful realm of data analysis. So, raise a glass to rigorous research, and prepare for a taste of the statistical suds that await.

## IV. Results

Our analysis revealed a strikingly positive correlation between the number of breweries in the United States and the stock price of Edwards Lifesciences Corporation (EW). The correlation coefficient of 0.9007346 suggests a strong relationship between these two variables, akin to a perfectly paired beer and cheese combination. This brewtifully high correlation indicates that as the brewery count increases, so does the stock price of Edwards Lifesciences, making it a potential hopportunity for investors.

Fig. 1 illustrates the clear relationship between the number of breweries and the stock price of Edwards Lifesciences, resembling the cascading bubbles in a freshly poured pint. The scatterplot depicts a positively sloped line, highlighting the undeniable connection between these seemingly unrelated industries. It's as clear as an IPA on a sunny day - there's definitely something brewing here.

With an r-squared value of 0.8113228, our model explains a frothy 81.13% of the variance in Edwards Lifesciences' stock price based on the variation in the number of breweries. This significant r-squared value cements the robustness of the relationship and reinforces the notion that the craft beer industry may have a substantial impact on the performance of medical equipment companies in the stock market.



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

The p-value of less than 0.01 further solidifies our findings, indicating that the relationship between the number of breweries and Edwards Lifesciences' stock price is statistically significant. This p-value is more conclusive than a well-crafted stout and provides strong evidence to support the presence of a genuine connection between these two variables.

It seems that the number of breweries and the stock price of Edwards Lifesciences are not just tangentially related; they share a profound connection that could provide valuable insights for investors and industry analysts. It's a relationship that's as refreshing as a cold brew on a hot summer day - unexpected but undeniably satisfying.

Overall, our results furnish compelling evidence to suggest that the craft beer industry exerts a notable influence on the stock price of Edwards Lifesciences Corporation. This finding opens up a whole new realm of possibilities for understanding the intricate interplay between seemingly unrelated sectors of the economy. It's a reminder that sometimes, the most unexpected correlations can yield the most lucrative opportunities in the market. In the words of Benjamin Franklin, "Beer is living proof that God loves us and wants to see us happy," and it seems that this bountiful love may extend to the stock market as well.



## V. Discussion

Brewing up a discussion about the interplay between craft beer and stock prices feels like walking a fine line between hoppy enthusiasm and serious market analysis, doesn't it? But let's not be barley serious; our results have provided a refreshing splash of evidence to support the previously suggested positive association between the number of breweries in the United States and the stock price of Edwards Lifesciences Corporation (EW). The strikingly high correlation coefficient of 0.9007346 and a significance level of  $p < 0.01$  confirm what many have suspected - that as the craft beer industry continues to ferment success, it also serves as a foamy fountain of opportunity for shareholders of medical equipment companies. It seems the market is brewing up some interesting dynamics indeed!

Digging deeper into our findings, we discovered that our results not only corroborate the prior "hops" and dreams of researchers before us but also provide a "hoppportunity" for investors to quench their thirst for new market trends. Our robust r-squared value of 0.8113228 indicates that a frothy 81.13% of the variance in Edwards Lifesciences' stock price can be explained by the variation in the number of breweries. It's akin to discovering the perfect pairing of beer and cheese - unexpected but tantalizingly valid.

Now, that being said, we must be cautious not to pour overconfidently into these findings. There may be other, malt-iple factors at play in the market that influence Edwards Lifesciences' stock price. But the undeniable statistical significance of our results suggests a genuine connection between the flourishing craft beer industry and the resilient stock performance of Edwards

Lifesciences. Like a well-poured pint, a well-considered investment strategy can truly elevate the spirits.

In conclusion, our study not only joins the spirited ranks of previous research but also adds a twist of lemon - or in this case, perhaps a splash of malt - with our robust data analysis and findings. The brewnique relationship between these two unlikely bedfellows is a reminder to investors and analysts alike that market opportunities can arise from the unlikeliest corners, much like discovering a hidden gem of a microbrewery in an unknown corner of town. Cheers to that!

## **VI. Conclusion**

In conclusion, our study has shown a frothy and statistically significant correlation between the number of breweries in the United States and the stock price of Edwards Lifesciences Corporation (EW). The positive correlation coefficient and p-value less than 0.01 illustrate a compelling relationship that could have investors raising their glasses in celebration. It appears that as the craft beer industry hops along, Edwards Lifesciences' stock price froths to new heights, much like the head on a well-poured pint.

These findings not only highlight the intriguing interconnectedness of seemingly unrelated industries but also suggest potential opportunities for investors to tap into. As one might say, it's a brewtiful blend of market trends and ale-gories that could yield fruitful returns for those with a keen eye on the tap.

Our results provide a refreshing perspective on the dynamics of the market, reminding us that even in the most unexpected places, there may be valuable correlations waiting to be uncovered. It's like finding a hidden treasure in the depths of a foamy brew - unexpected, yet oh so satisfying.

In the spirit of hearty research and perhaps a well-poured pint, we raise a glass to these insightful findings. It seems that the craft beer industry and stock market have brewed up a connection that is as captivating as it is unexpected. Our study leaves a lingering taste of discovery on the palate of academia, much like a good beer that leaves you yearning for another sip.

As much as we'd love to continue exploring the captivating world of breweries and stock prices, our study suggests that we've poured out the frothy findings worth raising a glass to. Therefore, we assert that no more research is needed in this area - we've tapped into the essence of this relationship and uncovered a connection as solid as a well-crafted stout. Cheers to the unexpected, and may all your research endeavors yield findings as fulfilling as a cold brew on a hot summer day!