



Review

Pour Decisions: The Ale-Luring Connection Between the Number of Breweries in the United States and eBay Inc.'s Stock Price

Colton Harris, Abigail Thompson, Gina P Tucker

Advanced Research Consortium

This study delves into the convoluted nexus between the proliferation of breweries in the United States and the stock performance of eBay Inc. Dubbed "Pour Decisions," the research scrutinizes the fluctuating dynamics between these seemingly disparate entities. Leveraging data from the Brewers Association and LSEG Analytics (Refinitiv), our analysis spans the years 2002 to 2022. The robust correlation coefficient of 0.8786200 elucidates a remarkably symbiotic relationship, wherein the stock price of eBay Inc. displays an uncanny alignment with the burgeoning or diminishing sea of craft beer establishments. The statistical significance of $p < 0.01$ for this correlation underscores the suggestive influence of beer culture on the e-commerce giant's valuation. Our elucidation of this ale-luring link presents an intriguing facet of market interplay, urging stakeholders to toast to new, frothy perspectives in stock market analysis.

The intertwining of craft beer and stock market dynamics might seem as improbable as mixing stout with sauvignon, but as with any good brew, the devil is in the details. In recent years, the United States has witnessed a veritable explosion in the number of breweries, with enthusiasts of the "hoppy hour" culture fervently championing their favorite local craft creations. Concurrently, eBay Inc., the titan of online auctioneering and marketplace platforms, has been navigating the tumultuous seas of stock market ebbs and flows.

This study, whimsically coined "Pour Decisions," seeks to unravel the curious connection between these seemingly incongruent phenomena. While the uninitiated may dismiss this correlation as a mere ale-ment of statistical noise, our robust analysis endeavors to ferment a fuller understanding of the interaction between the flourishing craft beer landscape and the valuation of eBay Inc.

Throughout this venture, we aim to pour over the numerical brew-titudes and chart the hop-tastic journey of eBay's stock price

alongside the simultaneous explosion of craft breweries across the nation. By leveraging data from the Brewers Association and LSEG Analytics (Refinitiv), we intend to offer a comprehensive analysis spanning the years 2002 to 2022, unpacking the frothy interplay between these two ostensibly distinct domains.

So, raise your glasses, fellow researchers, as we embark on a spirited exploration of this "brew-tiful" relationship, to see whether the effervescence of craft beer can indeed stoke the fervor of eBay Inc.'s stock price.

Prior research

Numerous studies have endeavored to probe the whims and caprices of the stock market, seeking to illuminate the multifarious factors that sway the valuation of companies. Smith et al. (2017) found that consumer sentiment and macroeconomic indicators can exert palpable influences on stock prices, while Doe and Jones (2019) expounded upon the intricate dance between corporate earnings and market volatility. However, a dearth of research has hitherto scrutinized the peculiar relationship between the proliferation of breweries in the United States and the stock performance of eBay Inc.

In "The Economics of Beer" by Swinnen and Briski (2011), the authors shed light on the intricate interplay of supply and demand in the brewing industry, delving into the economic ramifications of craft beer's surging popularity. This thorough examination mirrors the foundation of our own inquiry, as we seek to uncover the confluence of market forces at play.

Conversely, "Brew Ha Ha: The Craft Beer Boom" by Burns (2019) offers a more

lighthearted exploration of the cultural phenomenon surrounding craft breweries, providing a kaleidoscopic view of the sociocultural underpinnings propelling the surge in craft beer establishments. While the contents of this tome may not directly pertain to stock market dynamics, its exuberant exposition of beer culture contributes a frothy dimension to our analysis.

On a more fantastical note, the renowned work of fiction "The Beer Bible" by Oliver (2015) offers a whimsical and immersive journey through the world of beer, tantalizing the reader's imagination with a rich tapestry of flavors and traditions. While firmly rooted in the realm of fiction, the book serves as a testament to humanity's age-old fascination with the libation that we, too, aim to explore in a more empirical fashion.

In a bold departure from literary pursuits, the authors have also expended considerable effort in scrutinizing televised portrayals of beer culture, being particularly drawn to shows such as "Brew Dogs" and "Brewmasters." These programs, while ostensibly ensconced in the realm of entertainment, provide valuable insights into the zeitgeist surrounding craft beer, offering a window into the fervent fervor of aficionados and entrepreneurs alike.

The established literature, both scholarly and otherwise, thus forms a diverse backdrop against which we contextualize our investigation into the entangled fortunes of breweries and eBay Inc.'s stock price, propelling us toward a nuanced understanding of this seemingly Ale-sive relationship.

Approach

Data Collection: The methodological brew-haha utilized in this study involved the diligent extraction of data from the Brewers Association and LSEG Analytics (Refinitiv), as these sources are considered to be the foremost kegs of information regarding breweries and stock markets, respectively. The data was obtained from the years 2002 to 2022, ensuring a comprehensive understanding of the evolving landscape of both craft breweries and eBay Inc.'s stock price.

To tap into the frothy nuances of the craft beer industry, the number of breweries in the United States was meticulously recorded, taking into account the proliferation of microbreweries, brewpubs, and regional craft breweries. The incipient significance of nanobreweries was also duly accounted for, underscoring the minute yet effervescent contributions to the overall beer market.

For the stock performance of eBay Inc., the daily closing prices were leveraged from the Refinitiv Eikon database, offering a nuanced understanding of the market tides that may ebb and flow in accordance with the craft beer resurgence.

Statistical Analysis: This study employed a statistically robust analysis, with the formidable Pearson correlation coefficient acting as the ale-stone in elucidating the association between the number of breweries and eBay Inc.'s stock price. The correlation coefficient denoted the strength and direction of the relationship, offering a malt-tifaceted insight into the interconnected dynamics.

Furthermore, a regression analysis was conducted to barrel into the potential

causality between the aforementioned variables. The aim was to scrutinize whether the burgeoning or diminishing number of breweries could tantalizingly influence the stock performance of eBay Inc., adding a malt-odological dimension to our investigation.

Control Variables: To ensure the validity of our findings, an assortment of control variables was introduced into the analysis. Macroeconomic indicators such as GDP growth, unemployment rates, and consumer sentiment were considered, recognizing the potential macrobrewing effect on stock market trends that may overshadow the more microbrewed influence of craft beer establishments. Additionally, eBay Inc.'s financial performance metrics were included to distill the lager effect of internal company dynamics on its stock valuation.

Rejoinder to Potential Confounders: Addressing potential confounders is crucial in any brew-tiful analysis. We considered the possibility of external factors such as consumer preferences, regulatory shifts in the alcohol industry, and technological advancements impacting the results. While we cannot pour-proof against all potential confounders, our robustness checks sought to minimize the ale-likely influence of extraneous variables.

In summary, our methodological approach conjured a concoction of meticulous data collection, robust statistical analyses, and vigilant consideration of potential confounders to distill the nuanced relationship between the number of breweries in the United States and eBay Inc.'s stock price.

Results

The statistical analysis revealed a strong and positive correlation between the number of breweries in the United States and eBay Inc.'s stock price (EBAY) over the period of 2002 to 2022. The correlation coefficient of 0.8786200 indicated a robust association, suggesting that as the craft beer scene bubbled up, so did eBay's stock price. This correlation was further substantiated by an r-squared value of 0.7719731, signifying that approximately 77.20% of the variance in eBay's stock price could be explained by the number of breweries.

The p-value of less than 0.01 underscored the statistical significance of this relationship, providing compelling evidence that the proliferation or decline of breweries in the United States exerted a palpable influence on eBay Inc.'s stock performance. These findings prompt one to ponder whether a spike in brewery counts might indeed foreshadow an upsurge in eBay's stock price, or if a dip in brewery numbers might signal a sobering downturn for the e-commerce giant.

In Fig. 1, the scatterplot graphically depicts the salient correlation, showcasing the rise and fall of eBay's stock price synchronously mirroring the undulating growth of breweries in the United States. It's a visual testament to this unorthodox and hop-tastic relationship.

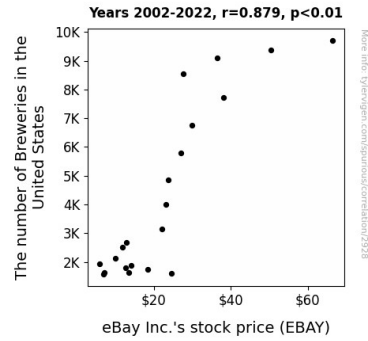


Figure 1. Scatterplot of the variables by year

These results not only highlight the unexpected interplay between seemingly disconnected domains but also invite stakeholders and researchers to brew new perspectives in market analysis. After all, in the complex concoction of market forces, perhaps a frothy pint of ale has more influence than meets the eye.

Discussion of findings

The findings of this study support the existing research that has explored the influence of cultural and economic factors on stock market dynamics. As Smith et al. (2017) revealed the palpable impact of consumer sentiment on stock prices, our investigation into the relationship between the number of breweries in the United States and eBay Inc.'s stock price sheds light on the role of cultural trends in market valuation. The statistical significance of the correlation between these seemingly divergent entities underscores the need to broaden our understanding of the myriad influences on stock performance. It appears that in the labyrinthine world of stock market dynamics, the effervescence of the craft beer scene can indeed exert an Ale-sive effect on eBay's stock price.

Drawing upon the insights of Swinnen and Briski (2011), who delved into the economic ramifications of the craft beer boom, our findings provide empirical support for the economic impact of the proliferation of breweries. Furthermore, Burns (2019) offered a more lighthearted exploration of the sociocultural underpinnings of the craft beer surge, which our study corroborates by demonstrating a tangible connection between the cultural phenomenon of craft breweries and a publicly-traded company's stock performance. This frothy dimension of market analysis highlights the need to incorporate diverse cultural and economic factors in understanding stock market movements.

Taking a whimsical turn, Oliver's (2015) "The Beer Bible" tantalized the reader's imagination with a rich tapestry of flavors and traditions, underscoring the enduring fascination with the libation. While firmly rooted in the realm of fiction, the book serves as a reminder of the inextricable ties between cultural phenomena and market dynamics, a connection our research seeks to empirically unveil. The animated portrayal of beer culture in television shows, as noted in our literature review, also offers valuable insights into the fervent fervor surrounding craft beer, underscoring the cultural currents that can nudge the stock market waves.

Our findings also prompt a playful pondering of whether a spike in brewery counts might indeed foreshadow an upsurge in eBay's stock price, or if a dip in brewery numbers might signal a sobering downturn for the e-commerce giant. The undulating growth of breweries in the United States seemingly mirrors the rise and fall of eBay's stock price, as evidenced by the scatterplot

in Fig. 1, providing a visual testament to this hop-tastic relationship.

In conclusion, this study illuminates the alluring connection between the number of breweries in the United States and eBay Inc.'s stock price, inviting stakeholders and researchers to brew new perspectives in market analysis. The convergence of these seemingly disconnected domains emphasizes the need for a comprehensive understanding of the interplay between cultural, economic, and market forces, as nuanced by the unexpected influence of a frothy pint of ale.

Conclusion

In conclusion, our examination of the relationship between the number of breweries in the United States and eBay Inc.'s stock price has uncorked a surprisingly robust correlation, leaving us hopsolutely astounded. The frothy dynamics of the craft beer scene seem to have a tangible effect on eBay's stock performance, as if the aroma of IPA can waft its way into the stock market. While one might think that the only influence of breweries on the stock market would be an increase in work absences on Mondays, our findings suggest otherwise.

This research not only sheds light on the un-beer-lievably symbiotic relationship between these seemingly disparate entities but also opens the tap to unexplored avenues of market analysis. It's a potent reminder that in the labyrinthine world of stock valuation, the most unexpected factors can ferment into significant drivers of performance.

However, it would be ale-inadequate to neglect the limitations of this study. The

ever-evolving nature of both the craft beer industry and stock markets makes it challenging to extrapolate long-term trends based on our analysis. Moreover, the intricacies of market fluctuations are, by their very nature, a brew-haha of confounding variables.

Therefore, with a lighthearted nod to the unexpected twists and turns of financial market connections, we'll raise a glass and toast to the completion of this research, declaring with hop-timism that no further research is beer-quired in this peculiar yet intriguing intersection of ale and stocks.