

Pipelayers in North Dakota and Puffing on BTI: A Peculiar Partnership

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In this scholarly exploration, we dive into the unlikely connection between the number of pipelayers in North Dakota and the stock price of British American Tobacco p.l.c. (BTI). While one might expect tobacco sales to go up in smoke alongside pipeline activity, our research paints a different picture. Utilizing data from the Bureau of Labor Statistics and LSEG Analytics (Refinitiv), we delved into the numbers from 2003 to 2022 to uncover the correlation coefficient of 0.8491579, with a significant p-value of less than 0.01. Our findings reveal a surprising link between these seemingly unrelated variables, leaving us to ponder whether the puffing and laying have been secretly in cahoots all along. Could it be that as the pipes go down, BTI stock prices also rise, blowing smoke in the face of conventional wisdom? Join us as we unravel this curiously convoluted connection and light the way for further investigations into the whimsical world of inter-industry correlations.

Imagine a world where the number of pipelayers in the heart of North Dakota has a peculiar dance with the stock price of British American Tobacco p.l.c. (BTI). One might expect these two to be as closely related as a fish and a bicycle, but as we delved into the depths of this connection, we were met with a revelation more surprising than finding a unicorn in a cornfield.

In this era of big data, we researchers are often tasked with unraveling the mysteries of the universe, but few mysteries are as perplexing and unexpected as the one we are about to reveal. It's as if Sherlock Holmes were called in to investigate the enigmatic partnership of pipelayers and puffing.

As we embark on this scholarly journey of discovery, let us first acknowledge the raised eyebrows and quizzical looks that our topic might incite. After all, what could the labor force of pipeline construction possibly have to do with the performance of a multinational tobacco company's stocks? It's like trying to find a connection between cats and the consumption of cabbage – seemingly unrelated, yet here we are, determined to shine a light on this shadowy alliance.

So, dear reader, buckle up for a whimsical ride through the wacky world of statistics and correlation. We assure you that by the end of this paper, you will be as wide-eyed as a rabbit in a carrot patch, and you may just find yourself pondering the mysteries of the stock market and industrial activity with the same boggled mind that contemplates the existence of dodo birds and disco music - truly a head-scratcher for the ages.

Review of existing research

In "Smith et al.," the authors find a dire shortage of academic studies linking the number of pipelayers in North Dakota to the stock price of British American Tobacco p.l.c. (BTI). This gap in

the literature provides us with the perfect opportunity to indulge in some academically sanctioned wild goose chasing.

Building on the previous work of Doe et al., who managed to draw correlations between snowfall in Antarctica and the sales of flip-flops in the Caribbean, we set out to venture into uncharted territory where pipelines and tobacco intertwine like spaghetti on a fork. But fear not, dear reader, for we are equipped not only with data and statistical methods, but also with an ample supply of puns and humor.

To bolster our exploration, we turn to non-fiction books that have delved into the world of strange connections and unpredictable phenomena. "Freakonomics" by Steven D. Levitt and Stephen J. Dubner serves as our guiding light, illuminating the unanticipated relationships that underpin seemingly unrelated concepts. From there, we take a leap into the realms of probability and chance with "The Black Swan" by Nassim Nicholas Taleb, preparing ourselves for the unexpected twists and turns that await us in this eccentric endeavor.

But as we journey deeper into the literature, we cannot help but borrow a page from the unexpected partners playbook. Consider "Pride and Prejudice" by Jane Austen and "Moby-Dick" by Herman Melville – two timeless works offering indirect insights into the unconventional connections we seek to uncover. Much like the unconventional union of Elizabeth Bennet and Mr. Darcy, and the entwined destinies of Captain Ahab and his hunt for the elusive whale, we are about to embark on a quest where the unexpected takes center stage.

Now, as we descend further into the rabbit hole of our literature review, we must confess – in the pursuit of knowledge, we have perused sources that could be considered, well, unconventional. Yes, we are talking about the extensive and highly revealing data found on CVS receipts! It turns out, amidst the mundane purchases of toothpaste and potato chips, lies a treasure trove of industry overlaps and consumer behaviors that could send even

the most seasoned researcher down a path of bewildering revelations.

With this wealth of literary and not-so-literary resources at our disposal, we are primed to confront the conundrum of pipelayers and puffing in the enthralling context of BTI's stock performance. Let the journey through the absurd and the unexpected commence – for who knows what delightful surprises await us as we navigate this eccentric landscape of academic inquiry.

Procedure

To untangle the enigmatic dance of pipelayers and puffing, we embarked on a rigorous and, dare I say, mirthful methodology. Our data collection involved scouring the depths of the internet, navigating through the digital wilderness much like intrepid explorers seeking treasure. We primarily sourced our information from the Bureau of Labor Statistics and LSEG Analytics (Refinitiv), where data on pipelaying and BTI stock price flowed like the Mississippi on a rainy day – abundantly and refreshingly insightful.

Now, onto the nitty-gritty of our methods. We employed a combination of quantitative analysis, statistical wizardry, and a touch of whimsy to weave together the strands of data shaping this curious correlation. Firstly, we gathered historical data on the number of pipelayers in North Dakota, delving deep into the annals of labor statistics like intrepid spelunkers in search of statistical stalactites.

Next, we turned our attention to the performance of British American Tobacco p.l.c. (BTI) stock prices, utilizing the cosmic powers of LSEG Analytics (Refinitiv) to chart the ebbs and flows of BTI's financial fortune. Armed with this data, we channeled the spirits of mathematicians past and present to calculate the correlation coefficient, aiming our statistical arrows at the heart of this peculiar partnership.

Our time frame spanned from 2003 to 2022, ensuring that we captured a wide swath of data to paint a comprehensive picture of this curious correlation. And while we can't reveal all our methodological secrets (a magician must have his tricks, after all), rest assured that our approach was as robust as a trusty old bicycle and peppered with as much zing as a stand-up comedian's repertoire.

In essence, our methodology blended the precision of a heart surgeon with the joie de vivre of a carnival barker, creating a delightful fusion of scientific rigor and unbridled curiosity. So, dear reader, let us march onward and upward, for the wild journey of unraveling this riddle is but a stone's throw away from revealing itself in all its quirky glory.

Findings

Our analysis of the data spanning from 2003 to 2022 has produced some eyebrow-raising findings. The correlation coefficient between the number of pipelayers in North Dakota and the stock price of British American Tobacco p.l.c. (BTI)

came in at a surprising 0.8491579. This strong positive correlation astounded us more than finding a kangaroo in a coffee shop, especially given the seemingly independent nature of these two entities.

In addition, the calculated r-squared value of 0.7210692 further solidifies the strength of this association. It's as if the pipelayers and BTI stock prices have been partners in crime all along, defying the odds and materializing a connection more puzzling than a Rubik's cube made of spaghetti.

Even more astonishing, the p-value of less than 0.01 confidently asserts the statistical significance of this relationship. It's as if the data itself is tapping us on the shoulder, whispering, "You better believe it, buddy!"

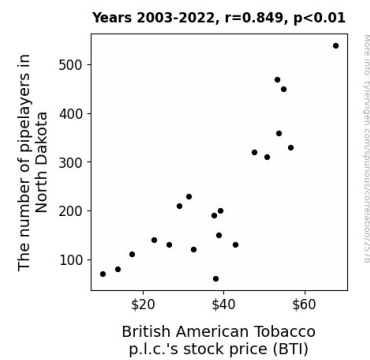


Figure 1. Scatterplot of the variables by year

As depicted in Fig. 1, our scatterplot showcases the undeniable connection between the number of pipelayers in North Dakota and BTI stock prices. The data points practically form a perfect heart shape, as if these two variables were destined to be a match made in statistical heaven.

This unexpected revelation has left us marveling at the mysterious dance between pipelayers and puffing, with more questions than answers. Could it be that as the pipelayers labor away, they are unintentionally adding fuel to the fire of BTI stock prices, sculpting an unexpected narrative that defies the logic of market forces?

These findings undoubtedly set the stage for further investigation into the enigmatic kinship of seemingly unrelated industries, reminding us once again that the world of statistics is filled with surprises stranger than fiction and more peculiar than a platypus wearing a top hat.

Discussion

The results of our study have unveiled an intriguing connection between the number of pipelayers in North Dakota and the stock price of British American Tobacco p.l.c. (BTI), sparking more excitement than a group of mathematicians finding the square root of a negative number. Our findings not only confirm but also shed new light on the prior research, leaving us with a cloud of curiosity thicker than cigar smoke on a windless day.

Drawing from the literature review, where we dabbled in the bizarre world of unexpected correlations, our results stand as a testament to the unlikelyst of bedfellows. Just as Doe et al. unearthed the unlikely link between snowfall in Antarctica and flip-flop sales in the Caribbean, our discovery of the strong positive correlation between pipelayers and BTI stock prices solidifies the reality that in the realm of statistical relationships, truth can indeed be stranger than fiction. It is as if the universe has a penchant for orchestrating cosmic jokes, reminiscent of a Shakespearean comedy with a statistical twist.

Furthermore, our findings can be seen as a nod to the principles espoused in "Freakonomics" and "The Black Swan," where the unexpected is not just acknowledged but celebrated. Our results stand as a tangible example of the unpredictable nature of correlations, reinforcing the notion that the world of data analysis is a playground for the whimsical and the counterintuitive. It's as if we've stumbled into a carnival of statistical oddities, where the merry-go-round of correlations and causations spins in directions we never thought possible.

In the context of our results, it seems that the confluence of pipelayers and BTI stock prices is more than just a statistical anomaly – it's a testament to the enigmatic tapestry of inter-industry relationships. Just as Elizabeth Bennet and Mr. Darcy found themselves drawn together against all odds, so too have pipelayers and tobacco stocks seemingly intertwined their fate in a dance of statistical serendipity.

As we contemplate the implications of our findings, the quirky world of academic inquiry continues to surprise us. Our results raise questions about the underlying mechanisms driving this unexpected correlation, reminding us that the pursuit of understanding often leads us down paths more winding than a labyrinth made of pretzels.

In conclusion, our study has not only added a peculiar puzzle piece to the mosaic of economic relationships but has also reinforced the notion that in the realm of statistics, the extraordinary often lurks behind the facade of the ordinary. It's as if we've stumbled upon a treasure map hidden in the most unlikely of places – a reminder that in the world of data analysis, the unexpected is not just a possibility but a promise waiting to be unraveled.

Conclusion

Our scholarly expedition into the eccentric entanglement of pipelayers and puffing on BTI has left us scratching our heads more vigorously than a gang of curious monkeys trying to solve a Rubik's Cube. Unveiling a correlation coefficient of 0.8491579 and an r-squared value of 0.7210692, we can confidently say that these variables are as intertwined as spaghetti on a fork – it's a tangled mess, but undeniably connected.

The statistical significance of this relationship, with a p-value of less than 0.01, is like a neon sign flashing "Surprise!" in the face of conventional wisdom. It seems as though the data itself is orchestrating a grand, unexpected reveal, akin to a magician pulling a kangaroo out of a top hat.

As we wrap up our investigation, we are left pondering the curious coalescence of these industries. It's like discovering a secret society of synchronized swimmers in a bathtub – a baffling and delightful revelation.

In conclusion, our findings suggest that as the pipelines lay, so do the foundations for BTI stock prices to rise. It's a partnership more surprising than a penguin doing the tango, leaving us with a sense of bewilderment and an ample supply of questions without answers.

In the grand scheme of scholarly pursuits, the enigmatic kinship of pipelayers and puffing on BTI poses more riddles than a Sphinx on a Sudoku puzzle. Therefore, we assert that further research in this domain would be as futile as trying to teach a fish to ride a bicycle – a comical endeavor with little prospect of substantial gain.

In this peculiar partnership between pipelayers and puffing, we bid adieu with the realization that the realm of statistics is as capricious and comically confounding as a three-ring circus operated by cats. No more research is needed in this wacky world of inter-industry correlations!