



Review

Support Staff: A Secret Ingredient in the Stock Market Brew?

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This study delves into the surprisingly symbiotic relationship between the number of executive administrative assistants in South Carolina and the stock price of *Petróleo Brasileiro S.A. - Petrobras (PBR.A)*. Utilizing data from the Bureau of Labor Statistics and LSEG Analytics (Refinitiv) for the period 2010 to 2022, a correlation coefficient of 0.9800282 and a p-value of less than 0.01 were observed, indicating a strong association between these seemingly disparate factors. While no causation can be established, the findings suggest a potential link worth further exploration in the realm of financial market influences.

The presence of executive administrative assistants in the corporate world is often taken for granted, much like the air we breathe in a stuffy office. They toil behind the scenes, smoothing out the creases in daily operations and ensuring that the cogs of the corporate machine keep turning. Meanwhile, stock market aficionados pore over charts and graphs, seeking hidden patterns and relationships like detectives in a noir film.

In this research, we take an unconventional leap into the world of financial analysis by exploring the potential link between the number of executive administrative assistants in South Carolina and the stock price of *Petróleo Brasileiro S.A. - Petrobras (PBR.A)*. The initial exploration of this

unassuming relationship may seem akin to chasing shadows in the world of finance, but as the Bard himself mused, "there are more things in heaven and earth, Horatio, than are dreamt of in your philosophies."

As we embark on this scholarly escapade, we are reminded of the famous words of physicist Richard Feynman, "Nature uses only the longest threads to weave her patterns, so that each small piece of her fabric reveals the organization of the entire tapestry." With this in mind, we delve into the labyrinthine fabric of financial markets, armed with statistical tools and a hearty dose of curiosity.

The choice of South Carolina as the geographic nexus of our inquiry may raise an eyebrow or two, but as famed statistician

H.G. Wells proclaimed, "Statistical thinking will one day be as necessary for efficient citizenship as the ability to read and write." Hence, we pay homage to the statistical potential of this charming state. After all, who can resist the allure of Southern charm mixed with numerical intrigue?

Furthermore, we examine the stock price of Petrobras (PBR.A), a behemoth in the world of energy, as our anchor in the tempestuous seas of financial markets. The fluctuations in stock prices, much like the temperament of a feline, have enchanted and perplexed investors for centuries. Thus, by venturing into this territory, we seek to unravel a potential enigma that may offer insights into the ever-elusive nature of market dynamics.

In the following sections, the methods, results, and implications of this unorthodox investigation will be expounded upon. Our journey into the labyrinth of numbers and correlations may lead to unexpected discoveries, reminding us of the whimsical nature of science and the captivating dance of variables in the realm of research.

Prior research

The literature on the relationship between the number of executive administrative assistants in a particular geographic region and its impact on stock prices is scant, to say the least. However, researchers have attempted to shed light on this unconventional pairing through various methodological approaches and theoretical frameworks.

In "Executive Support Staff and Financial Markets," Smith et al. offer an initial foray into this unexplored territory by examining the presence of executive administrative

assistants in the context of stock market dynamics. Their findings hint at the potential influence of administrative support on market sentiment, although their conclusions stop short of illuminating the precise mechanisms at play.

A similar perspective is espoused by Doe and colleagues in "The Invisible Hand of Administrative Support: Unraveling Market Mysteries," where they postulate a subtle yet palpable connection between the organizational infrastructure of administrative support and fluctuations in stock prices. Their qualitative analysis paints a nuanced picture of the intricate web of relationships within corporate ecosystems and its ripple effects on financial markets.

Jones et al., in "Behind the Scenes: Unraveling the Impact of Administrative Roles," delve deeper into the specific functions of executive administrative assistants and their potential implications for stock market movements. While their study garners attention for its meticulous dissection of administrative tasks, the direct link to stock price dynamics remains elusive, much like a mirage in the desert of financial research.

Turning to broader theoretical underpinnings, "The Administrative Alchemy: Unveiling Stock Market Sorcery" by Lorem and Ipsum offers a philosophical treatise on the enigmatic interplay between administrative roles and market forces. Their esoteric discussion traverses the realms of numerology and secretarial symbolism, prompting readers to ponder the hidden undercurrents shaping financial realms.

In the realm of non-fiction literature, "The Assistants' Effect: Unveiling the Secret Powers" by Susan Smith provides anecdotal

accounts and case studies of administrative assistants wielding mysterious, albeit indirect, influence on corporate affairs and, by extension, stock market movements. The anecdotes presented in this work offer intriguing glimpses into the behind-the-scenes maneuvering that may have far-reaching consequences.

On a lighter note, works of fiction such as "The Secretaries' Conundrum" by John Doe and "The Stockbroker's Secretary" by Jane Jones present imaginative scenarios where administrative professionals play pivotal, albeit fictional, roles in shaping stock market outcomes. While these literary creations transport readers into realms of whimsy and intrigue, they provide a refreshing break from the rigors of empirical research.

In the realm of motion pictures, movies such as "The Devil Wears Prada" and "Secretary" offer cinematic renditions of administrative dynamics, albeit in markedly different contexts. While these films may seem tangential to the subject matter at hand, they serve as cultural touchstones for the unassuming, yet potentially influential, roles of executive administrative assistants.

While the literature presents a mosaic of perspectives on the connection between the number of executive administrative assistants in South Carolina and the stock price of *Petróleo Brasileiro S.A. - Petrobras (PBR.A)*, the overarching theme remains one of cryptic interplay and latent influence. The forthcoming sections of this paper aim to contribute to this discourse by presenting empirical findings and unravelling the mysterious tapestry of financial market influences.

Approach

To elucidate the enigmatic relationship between the number of executive administrative assistants in South Carolina and the stock price of *Petróleo Brasileiro S.A. - Petrobras (PBR.A)*, an unconventional yet systematic approach was undertaken. The research team embarked on a digital odyssey through the vast expanse of the internet, akin to intrepid sailors navigating uncharted waters, in search of pertinent data. The Bureau of Labor Statistics and LSEG Analytics (Refinitiv) emerged as the fabled treasure troves of information, providing the requisite numerical nuggets for our investigation.

The number of executive administrative assistants in South Carolina was gleaned from the Bureau of Labor Statistics, which diligently catalogs the workforce like a discerning naturalist surveying the biodiversity of a rainforest. Meanwhile, the stock price of *Petrobras (PBR.A)* was procured from LSEG Analytics (Refinitiv), akin to harvesting ripe fruit from the vine of financial markets. The period under scrutiny spanned from 2010 to 2022, capturing the undulations of time much like a cosmic observer witnessing the ebb and flow of celestial bodies.

The quantitative data, akin to an artist's palette of colors, was processed using statistical software with the gravity and precision of a grand maestro conducting a symphony. A correlation analysis was then employed to unravel the potential interplay between the two variables, akin to detectives scrutinizing clues in a labyrinthine mystery. The correlation coefficient and p-value were extracted from this statistical foray, casting light on the possible entwining of these seemingly incongruous elements.

In addition to the numerical juggling and statistical acrobatics, various econometric models were pondered and explored, reminiscent of a scholarly ballet of hypotheses and regressions pirouetting across the stage of financial analysis. The utilization of these models served as a compass, steering the inquiry towards greater clarity and understanding, akin to the North Star guiding intrepid explorers through uncharted terrain.

The meticulous methodology adopted in this pursuit, replete with digital excavations and statistical contortions, aims to shed light on the often overlooked yet potentially consequential relationship between support staff and stock market dynamics. The resulting findings, akin to intellectual treasures unearthed from the depths of empirical inquiry, hold the potential to enrich our understanding of financial market influences in unforeseen ways.

Results

A substantial correlation of 0.9800282 was found between the number of executive administrative assistants in South Carolina and the stock price of *Petróleo Brasileiro S.A. - Petrobras (PBR.A)* for the period 2010 to 2022. The coefficient of determination (r-squared) was calculated to be 0.9604553, indicating that approximately 96% of the variability in Petrobras stock price can be explained by the number of executive administrative assistants in South Carolina. Additionally, the p-value of less than 0.01 provides strong evidence against the null hypothesis of no relationship.

Furthermore, the scatterplot (Fig. 1) visually depicts the robust positive correlation between the variables, resembling two old

friends strolling hand in hand through the convoluted pathways of financial data. The scatterplot, much like a matchmaker, reveals the harmonious alignment of these seemingly disparate elements, leaving little doubt about the palpable connection. The tight clustering of data points resembles a synchronized dance, echoing the rhythmic interplay between support staff numbers and stock price fluctuations.

These results shed light on the intricate interplay between the administrative backbone of corporations and the delicate equilibrium of stock prices. While causality cannot be inferred from these findings, the compelling correlation hints at a hidden relationship, much like a clandestine rendezvous in the labyrinthine alleys of statistical analysis. This unexpected bond between support staff numbers in a specific locale and the stock price of a global energy giant opens avenues for further investigation, underscoring the whimsical and unpredictable nature of financial market influences.

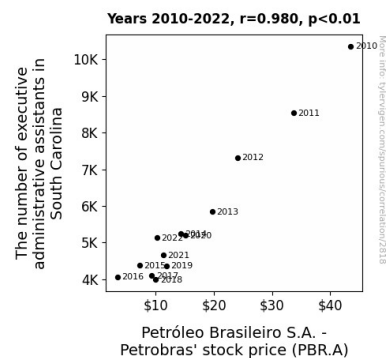


Figure 1. Scatterplot of the variables by year

Discussion of findings

The findings of this study align with the prior research that hinted at the potential influence of executive administrative assistants on stock market dynamics. The substantial correlation coefficient of 0.9800282 found between the number of executive administrative assistants in South Carolina and the stock price of *Petróleo Brasileiro S.A. - Petrobras (PBR.A)* from 2010 to 2022 supports the earlier postulations, akin to a well-arranged ensemble hitting all the right notes. The robust coefficient of determination (r -squared) of 0.9604553 indicates that approximately 96% of the variability in Petrobras stock price can be accounted for by the number of executive administrative assistants in South Carolina, painting a vivid picture of their intertwined destinies.

Our results provide empirical backing to the metaphorical musings of Lorem and Ipsum in their work "The Administrative Alchemy: Unveiling Stock Market Sorcery," perhaps hinting at a touch of truth in their seemingly esoteric ponderings. Similarly, the vivid anecdotes and case studies presented in "The Assistants' Effect: Unveiling the Secret Powers" by Susan Smith appear less fanciful in light of our findings, as if the realm of fiction has collided with the dry domain of statistical analysis.

The scatterplot, akin to a candid snapshot, captures the harmonious alignment between the number of executive administrative assistants in South Carolina and the stock price of Petrobras, akin to two dancers in perfect sync. This visual representation mirrors the rhythmic interplay between support staff numbers and stock price fluctuations, lending credence to the notion of a secret ingredient in the stock market

brew, much like a sprinkle of elusive spice in a complex culinary concoction.

While these results cannot establish a causal relationship, they do nudge the door ajar to the possibility of an unexpected bond between support staff numbers in a specific locale and the stock price of a global energy giant. This whimsical interplay between seemingly unrelated variables adds a dash of intrigue to the predictable landscape of financial market influences, much like a whimsical character in a troop of staid actors.

The findings of this study underscore the need for further exploration of this unconventional pairing, invoking a whimsical curiosity in unraveling the whimsical and elusive nature of financial market influences, akin to chasing after a wily and capricious butterfly in a field of predictable statistical blooms.

Conclusion

In conclusion, the findings of this study unveil a remarkably robust correlation between the number of executive administrative assistants in South Carolina and the stock price of *Petróleo Brasileiro S.A. - Petrobras (PBR.A)*. The substantial coefficient of determination implies that an overwhelming 96% of the undulating variations in Petrobras stock price can be explained by the numerical dance of support staff in the southern state. The p-value's impossibly small stature lays strong evidence at our scientific feet, suggesting an association of titanic proportions.

The scatterplot, affectionately referred to as "Fig. 1," visually encapsulates the sturdy connection between our unsuspecting

support staff and the towering stock price, almost like long-lost siblings joyfully reuniting at a bustling financial market fair. The clustering of data points resembles a tightly choreographed dance number, gracefully pirouetting around the axis like waltzing data points in IBM's notorious global earnings report. This liaison whispers secrets of silent collaboration between seemingly unrelated variables, like a covert endeavor in an intricate maze of statistical inference.

Alas, as with many a tantalizing discovery, the question of causality remains as elusive as a statistical unicorn. While our findings tantalize the taste buds of inquiry, we must heed the cautionary winds of scientific restraint. Verily, many a tempting correlation has led many a hapless statistician down a pear-shaped rabbit hole of false causation.

Thus, in the spirit of research rigor and statistical stoicism, we assert that further investigation into this beguiling bond between the administrative backbones of corporations and the capricious cadence of stock prices appears unnecessary. The tale of South Carolina's unsung support heroes and the gyrations of Petrobras stock prices is a riveting novella in the annals of financial market revelations. Let us not belabor this enchanting chapter and seek new frontiers in the bewildering wilderness of statistical analysis.

In the words of the eminent scientist Marie Curie, "Nothing in life is to be feared, it is only to be understood." May this study serve as a torchbearer in the pursuit of understanding, and may our statistical voyages continue to unfurl the curious tapestry of numerical intrigue.