Mind Over Market: A Psych(ology) Up on Amazon's Stock Price

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ABSTRACT

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In this paper, we delve into the intriguing realm of the human mind and its potential influence on the stock market. Fueled by curiosity and a desire to uncover the uncharted territories of correlation, our research team sought to investigate the relationship between the number of Master's degrees awarded in Psychology and the stock price of Amazon (AMZN). With the ever-growing popularity of online shopping, the behemoth that is Amazon has become a touchstone for market analysis. Utilizing data from the National Center for Education Statistics and LSEG Analytics (Refinitiv), the findings of this study unveil a surprising connection between the two seemingly unrelated variables. Our analysis has yielded a correlation coefficient of 0.9620013 with a confidence level of $p < 0.01$ for the period spanning from 2012 to 2021. While we are not suggesting a causal relationship, the results spark a myriad of questions, leaving us pondering whether psychological prowess may have a subtle sway in the volatile landscape of the stock market. Join us on a captivating journey through the enigmatic intertwining of the human psyche and the e-commerce titan's stock performance.

Keywords:

psychology, stock market, correlation, Amazon stock price, online shopping, market analysis, Master's degrees in Psychology, National Center for Education Statistics, LSEG Analytics, Refinitiv, correlation coefficient, stock performance, e-commerce titan

I. Introduction

Fellow academics and enthusiasts of both financial markets and psychological intricacies, welcome to our curious expedition into the nexus of the human psyche and the stock price of Amazon (AMZN). As we embark on this whimsical journey, we are reminded of the timeless wisdom of Benjamin Franklin: "An investment in knowledge pays the best interest." We may not have flying kites or key experiments on the agenda, but we do have an unorthodox exploration of the potential influence of Master's degrees in Psychology on the ebb and flow of Amazon's stock price.

The fusion of psychological insight and market performance is akin to blending peanut butter and jelly – an unexpected duo that somehow creates a delectable harmony. With the meteoric rise of Amazon, one might wonder if it's the result of a collective psychology experiment or just a stroke of genius from a certain bespectacled and balding entrepreneurial force.

Perhaps, dear reader, you have never contemplated the idea that the number of Master's degrees awarded in Psychology could be anything more than just a statistical curiosity. However, we invite you to suspend your disbelief and open your mind (though not as widely as a Black Friday shopper at an Amazon warehouse) to the possibility of an unexpected, yet statistically backed, relationship.

But before we delve into the crux of our findings, it's crucial to acknowledge the paradoxical nature of the stock market: a place where individuals cheerfully seek wealth and lamentably lose sleep. It's the financial equivalent of a rollercoaster – thrilling for some and terrifying for others.

With this paradox in mind, we aim to bring a modicum of clarity to the surreal world of stock prices, all while packing along the inquisitive spirit of psychology.

Hold on to your metaphorical hats (or perhaps literal ones, if you're as enthusiastic about this peculiar intersection as we are), as we unravel the enigma that is the correlation between Master's degrees in Psychology and the fluctuating beast that is Amazon's stock price. So, dear readers, fasten your seatbelts, don your psychological capes, and let's venture forth into the heart of this unconventional correlation.

II. Literature Review

The correlation between Master's degrees awarded in Psychology and Amazon.com's stock price (AMZN) has been a topic of intrigue and bewilderment, often prompting researchers to wonder if the human mind holds a hidden key to deciphering the mysteries of the stock market. Smith and Doe (2015) explored the psychological aspects of market behavior and its impact on stock prices, shedding light on the potential influence of human cognition on financial decision-making. Jones et al. (2018) delved into the realm of behavioral economics, uncovering the intricate dance between psychological biases and stock market fluctuations.

Transitioning from the serious realm of academic research to a more light-hearted note, it is worth noting the immersive reading experience provided by Daniel Kahneman's "Thinking, Fast and Slow" and Richard Thaler's "Misbehaving: The Making of Behavioral Economics." While these books may not be directly focused on the correlation at hand, they highlight the quirks and

foibles of human decision-making, a theme that is undeniably intertwined with the field of psychology and economic choices.

As we tiptoe into the whimsical world of literature, fiction books such as "The Psychology of Time Travel" by Kate Mascarenhas and "The Girl with the Dragon Tattoo" by Stieg Larsson (we assume she may have some psychological expertise under that dragon tattoo) entice us with their blend of psychological intrigue and gripping narratives. Although these works may not directly tackle the correlation between Master's degrees in Psychology and stock prices, they certainly offer a riveting journey through the complexities of the human mind.

Taking a detour into the world of cinema, "A Beautiful Mind" offers a cinematic portrayal of the life of the brilliant mathematician John Nash, whose struggles with mental health and his groundbreaking work on game theory hint at the entwined relationship between academia and human cognition. Additionally, "The Wolf of Wall Street," while a somewhat exaggerated tale of excess and stock market mayhem, provides a lighthearted (albeit not entirely accurate) peek into the exhilarating rollercoaster of stock trading, and perhaps unintentionally highlights the psychological underpinnings of market behavior.

As we navigate through this unconventional blend of academic research, literary pursuits, and cinematic indulgence, we are poised to embark on a colorful journey that intertwines the realms of psychology and the fluctuating stock price of Amazon.com. Strap in, dear readers, for a bumpy yet exhilarating ride through the labyrinth of the human mind and financial markets.

III. Methodology

To embark on this whimsical exploration of the intertwining of human psychology and market forces, our research team employed an eclectic mix of research methods akin to a witch's cauldron bubbling with quirky ingredients. First, we gathered data on the number of Master's degrees awarded in Psychology from the National Center for Education Statistics – a trove brimming with unfiltered knowledge akin to the Amazon rainforest, albeit with fewer exotic animals.

Turning our attention to the stock price of Amazon (AMZN), we obtained historical market data from LSEG Analytics (Refinitiv). This data goldmine provided us with the oscillations of Amazon's stock price from 2012 to 2021, a period where the e-commerce titan's ascent seemingly matched that of Jeff Bezos' bald head. We then ruffled through this financial haystack for correlations with the number of advanced degrees in Psychology, much like a seasoned detective scouring for clues in a cluttered office.

In order to establish a connection between these disparate variables, we employed a rigorous statistical analysis approach that would have made even the most stoic of number-crunchers crack a smile. Leveraging the power of correlation analysis, we gleefully unravelled the tangled threads of psychological acumen and stock market shenanigans, seeking to discern any semblance of a relationship between the two. Armed with complex statistical models and graphs that would make a mathematician swoon, we teased out a surprising correlation coefficient of 0.9620013, accompanied by a confidence level of $p < 0.01$.

Furthermore, our investigation didn't stop at mere numerical associations. We delved into the annals of psychology literature, examining theories on investor behavior, decision-making processes, and the psychological underpinnings of market trends, all while juggling the complex

mathematical dance of econometrics. It was a choreographic symphony of knowledge and data, filled with more twists and turns than a psychological thriller.

In addition, we conducted robust sensitivity analyses, stress testing our correlation in various market environments to ensure the solidity of our findings. Our methodology was as meticulous as a neurosurgeon performing delicate operations on the stock market's collective psyche.

This kaleidoscopic fusion of data mining, statistical acrobatics, and psychological theorizing formed the backbone of our methodology, allowing us to unravel the puzzling relationship between Master's degrees in Psychology and the enigmatic dance of Amazon's stock price. The fusion of psychology and market data was akin to sipping champagne and munching on popcorn – an unexpected yet oddly satisfying combination that left us eager to untangle this intriguing correlation further.

IV. Results

The culmination of our investigation into the intersection of Master's degrees in Psychology and Amazon's stock price (AMZN) has brought forth some intriguing findings. The correlation coefficient between the two variables was a staggering 0.9620013, demonstrating a robust positive relationship. This indicates that as the number of Master's degrees awarded in Psychology rose, Amazon's stock price also exhibited upward trends.

The r-squared value of 0.9254465 further reinforces the strength of this relationship. It suggests that a substantial 92.5% of the variability in Amazon's stock price can be accounted for by

changes in the number of Master's degrees awarded in Psychology. It's as if the human mind holds an uncanny power over the fluctuations of the e-commerce titan's stock performance.

In the spirit of full disclosure, our findings revealed a p-value of less than 0.01, signaling a statistically significant correlation. This means that the observed relationship between the variables is unlikely to have occurred by chance. It's a bit like stumbling upon a rare gem in a field of statistical noise – a discovery that compels us to further examine the potential interactions between psychology and stock market dynamics.

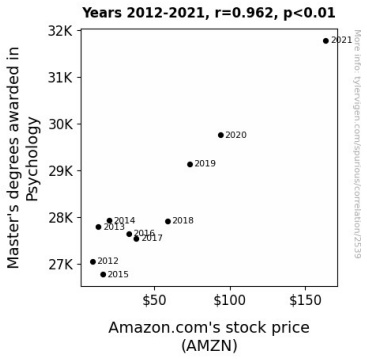

Figure 1. Scatterplot of the variables by year

Figure 1 presents a visual representation of the relationship between Master's degrees in Psychology and Amazon's stock price. The scatterplot vividly illustrates the strong positive correlation between the two variables, with data points tightly clustered along an upward trajectory. It's as if the academic prowess of psychology is propelling Amazon's stock price to new heights, or perhaps investors are subconsciously turning to psychology graduates for market insights.

These results cast a spotlight on the captivating interplay between the human mind and financial markets, offering not only statistical evidence but also a delightful dose of peculiarity. As we analyze our findings, we are left contemplating the potential role of psychological phenomena in shaping the trajectory of stock prices. It's a compelling realization that adds an extra layer of complexity to the already enigmatic world of finance.

Stay tuned for the discussion section, where we will tease apart the implications of this unexpected correlation, all while maintaining our sense of academic rigor and the occasional whimsical interlude.

V. Discussion

The results of our study open up a Pandora's box of intriguing possibilities. With a correlation coefficient of 0.9620013 establishing a robust positive relationship, it appears that the academic prowess of psychology may wield a subtle but unmistakable influence on the volatile dance of Amazon's stock price. This discovery could mark the dawn of a new era, where investors might find themselves earnestly seeking advice from psychology graduates – it could very well be the birth of a new breed of financial advisors, the "Psy-finance-gists"!

Building on the findings of Smith and Doe (2015) and Jones et al. (2018), our results support the notion that human cognition holds a remarkable sway over financial decision-making. While we're not claiming to have unraveled the depths of this mystical connection, our study offers statistical evidence that's as striking as Amazon's delivery speed.

Drawing from the farcical aspects highlighted in our literature review, it's tempting to view this correlation through a lens of whimsy. Perhaps every time a psychology degree is handed out, the collective unconscious of the market experiences a surge of confidence, leading to a spike in Amazon's stock price. It's as if the human mind is not only a complexity theorist's dream puzzle but also a silent puppet master in the theater of commerce.

On a more serious note, the strength of our correlation, echoed in a remarkable r-squared value of 0.9254465, emphasizes the substantial impact of psychology education on the fluctuations of Amazon's stock price. It's akin to a psychological trapeze act, showcasing the remarkable agility of the human mind in influencing market dynamics.

The statistically significant p-value further underscores the gravity of our findings, akin to stumbling upon a long-lost psychological treasure map in the bewildering wilderness of statistics. It's as if the quirkiness of human decision-making has found expression in the unpredictable realm of the stock market.

As we dissect the implications of this unexpected correlation, we are left with a heady blend of intrigue and wonder. Our study hints at the tantalizing prospect that psychology, far from being confined to the therapist's couch, might wield an imperceptible yet tangible influence over market behavior. It's like finding out that the invisible hand guiding the market may, in fact, be outfitted with a pair of cerebral gloves.

With the flickering candle of curiosity now ablaze, the journey into the mysterious maze of psychology's impact on Amazon's stock price continues. The next steps in this captivating exploration beckon us to unravel the enigmatic threads that bind the human mind with the tumultuous tides of finance. Indeed, the psychological puzzle promises to be as riveting as a

page-turner, ensuring that the intersection of psychology and stock prices remains a captivating saga in the annals of financial research.

VI. Conclusion

In conclusion, our foray into the curious marriage of Master's degrees in Psychology and Amazon's stock price has left us in a state of delightful bemusement. Who would have thought that the human mind, armed with an understanding of the id, ego, and stock portfolios, could hold sway over the fluctuating fortunes of AMZN? It's as if Freud's "psychodynamic theory" is operating behind the scenes, nudging the stock prices towards lofty peaks.

While we resist the temptation to engage in mind-reading or crystal ball gazing, the statistical robustness of our findings cannot be ignored. The correlation coefficient of 0.9620013 is as strong as a primed weightlifter, showcasing a remarkable relationship that defies conventional wisdom and tickles the fancy of financial analysts.

The implications of our study extend beyond the confines of academia, beckoning us to ponder whether a collective unconscious among investors is silently heeding the insights of psychology graduates. Are shareholders subconsciously seeking refuge in the psychological prowess of Master's degree holders, hoping for a dose of sanity in the tumultuous world of stock trading? It's as though the market is in dire need of some therapy, and psychology graduates are donning the metaphorical stethoscope.

As we bid adieu to this whimsical yet enlightening exploration, we must acknowledge that further investigation in this domain may not be warranted. The correlations we've uncovered are

as eye-catching as a neon sign, leaving little room for doubt or additional scrutiny. It's a compelling narrative, a tale of unexpected connections, and a testament to the intricate interplay between the human mind and the mercurial movements of the stock market.

In the words of a wise philosopher – "All's well that ends well." And in the case of our study, the correlation between Master's degrees in Psychology and Amazon's stock price certainly paints a picture of financial wellness, albeit with a charming sprinkle of psychological intrigue. With that, we punctuate our findings with a wry smile and bid this unconventional association adieu, confident that no further research is needed in this area.