

Doughnuts and Data: The Correlation between Mark Rober's Views and Krispy Kreme Store Count in the US

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ABSTRACT

Doughnuts and Data: The Correlation between Mark Rober's Views and Krispy Kreme Store Count in the US

This study delves deep into the sweet and statistical relationship between the total views on Mark Rober's YouTube videos and the count of Krispy Kreme Doughnuts stores across the United States. By utilizing data from YouTube and Statista from 2011 to 2021, our research team uncovered a correlation coefficient of 0.7109428 and $p < 0.05$, indicating a significant association between these two seemingly unrelated entities. While some may dismiss this as mere coincidence, our findings suggest that there may be more to this correlation than meets the eye. In exploring this quirky connection, we embark on a statistical journey filled with doughnut-related puns and robust data analysis. Join us in uncovering the intriguing relationship between DIY science and delectable doughnuts!

Keywords:

Mark Rober, YouTube views, Krispy Kreme stores, correlation, statistical relationship, data analysis, DIY science, doughnuts, YouTube statistics, Krispy Kreme store count, correlation coefficient, statistical significance, YouTube data, Statista, United States, association, YouTube analytics

I. Introduction

The world of statistical analysis is often filled with unexpected connections and peculiar correlations. From the relationship between ice cream sales and shark attacks to the link between Nicolas Cage movies and swimming pool drownings, researchers are continually uncovering surprising associations between seemingly unrelated phenomena. In this vein, our study endeavors to explore the peculiar connection between the total views on Mark Rober's captivating YouTube videos and the burgeoning count of Krispy Kreme Doughnuts stores in the United States.

On the surface, the idea of scrutinizing the viewership of a popular DIY science YouTuber alongside the spread of a renowned doughnut chain may seem whimsical, if not utterly absurd. Yet, as we delved into the data spanning the past decade, we were astonished to find a statistically significant correlation between these disparate entities. As the saying goes, "where there's a will, there's a cliché." Nevertheless, we assure our esteemed readers that we approach this investigation with the utmost seriousness, sprinkled with a dash of humor and a pinch of glaze.

The emergence of YouTube as a prominent platform for educational and entertaining content has redefined the landscape of science communication and popularized a new generation of science enthusiasts. Mark Rober, an ex-NASA engineer turned YouTube personality, has amassed a substantial following with his engaging and informative videos on various scientific experiments and engineering feats. Given his penchant for blending humor and ingenuity, Rober

has cultivated a dedicated audience eager to partake in his endeavors, much like patrons flocking to a bakery for the latest batch of freshly glazed doughnuts.

Meanwhile, within the gastronomic realm, Krispy Kreme Doughnuts has solidified its status as a beloved purveyor of delectable pastries, enchanting doughnut connoisseurs nationwide with its tantalizing array of sugary treats. It is in this convergence of science and sweetness that our fascination with the potential relationship between Rober's viewership and Krispy Kreme's store count blossomed, akin to a dough rising in the warmth of an oven.

In the following sections of this paper, we embark on an empirical journey, guided by statistical rigor and a passion for uncovering unconventional connections. Our aim is to present a comprehensive analysis that not only elucidates the statistical correlation between these variables but also offers a window into the whimsical world of unintended statistical relationships. As we delve into the data, our study promises to be both enlightening and, dare we say, a little bit sweet.

So, dear reader, fasten your seatbelts, grab a doughnut (or two), and join us on this unlikely statistical expedition as we unravel the enigmatic bond between Mark Rober's YouTube prowess and the doughy allure of Krispy Kreme.

II. Literature Review

In a study by Smith et al., the authors found a strong positive correlation between social media engagement and consumer behavior, indicating the potential influence of online content on consumer preferences and habits (Smith, 2016). Building upon this notion, Doe and Jones established a connection between popular DIY science content and audience engagement,

shedding light on the impact of educational and entertaining videos on viewers' interests and activities (Doe & Jones, 2018).

As we transition into a more unconventional realm of literature, it is worth considering the insights offered by "Doughnuts: Delicious and Delightful" by Baker and Fryer. This comprehensive exploration of the cultural significance and consumer trends surrounding doughnuts offers a tantalizing backdrop for our investigation into the linkage between Krispy Kreme store count and online viewership of scientific content (Baker & Fryer, 2019).

Additionally, the work of "Data Delights: A Statistical Symposium on Sweets" by Statistician et al. presents a unique perspective on the intersection of data analysis and culinary fascination, providing a lighthearted yet informative context for our research (Statistician et al., 2020).

Delving further into the literary landscape, the fictional accounts of "The Statistical Sorcery of Sweets" by Munchkin and "Doughnuts, Data, and Destiny" by Confectionery Enthusiast offer imaginative narratives that, although not rooted in empirical evidence, serve as whimsical musings on the potential connections between statistical analysis and the world of confectionery (Munchkin, 2017; Enthusiast, 2020). These literary works remind us of the delightful and often surprising nature of statistical relationships, beckoning us to approach our investigation with a sense of curiosity and humor.

Moreover, drawing inspiration from the silver screen, the movies "The Statistical Scientist and the Sweet Surprises" and "Doughnut Diaries: A Tale of Tasty Trends" provide cinematic interpretations of the captivating juxtaposition between data analysis and delectable treats (Director, 2015; Cinematographer, 2018). While these films may not directly inform our empirical study, they serve as lighthearted reminders of the unexpected joy that can emerge from unconventional statistical investigations.

In synthesizing the literature surrounding our peculiar yet enthralling research endeavor, we are reminded of the multifaceted nature of statistical inquiry and the delightful surprises that await amidst seemingly unrelated domains. With this eclectic array of sources as our backdrop, we embark on our statistical odyssey, armed with curiosity, mirth, and an insatiable appetite for uncovering the unexpected.

III. Methodology

To investigate the tantalizing tale of total views on Mark Rober's YouTube videos and the doughnut-driven dynamics of Krispy Kreme store counts across the United States, a meticulous methodology was employed. The primary data sources utilized in this endeavor were YouTube, serving as a digital repository of video viewership statistics, and Statista, offering comprehensive information on the distribution and growth of Krispy Kreme establishments over the years. The time frame for data collection spanned from 2011 to 2021, encompassing a decade of delectable data.

First, the total views on Mark Rober's YouTube videos were scrupulously extracted, providing an insight into the burgeoning allure of engaging science-related content in the digital realm. The use of assorted statistical techniques enabled the quantification and analysis of the trajectory of Rober's viewership, capturing the ebb and flow of his audience's fascination for scientific experimentation and engineering marvels.

Simultaneously, the count of Krispy Kreme Doughnuts stores across the United States was meticulously chronicled, harnessing the robust database available through Statista. This vigilant

monitoring of the geographical proliferation of doughnut havens unveiled the geographical and commercial evolution of this beloved pastry purveyor, echoing a symphony of sugary disbursement across the nation.

To establish the statistical relationship between these seemingly incongruous entities, a correlation analysis was performed, revealing a coefficient of determination denoted as r . This coefficient measured the strength and direction of the linear relationship between the total views on Mark Rober's YouTube videos and the count of Krispy Kreme stores, providing a numerical testament to the intertwining of science-inspired spectacles and sweet, glazed temptations.

Furthermore, a series of inferential statistical tests were conducted to ascertain the significance of this correlation, as denoted by the p -value. This statistical prowess enabled us to discern the likelihood of the observed association arising by mere chance, casting a discerning eye on the statistical relevance and coherence of our findings.

In conclusion, the methodology employed in this study adhered to rigorous statistical principles, adorned with a sprinkle of curiosity and a dollop of whimsy. With an unyielding pursuit of scholarly discovery and a pinch of playful exuberance, we endeavored to unravel the enigmatic bond between the virtual allure of scientific wonderment and the tangible allure of Krispy Kreme's doughy delights.

IV. Results

The statistical analysis unveiled a notable correlation coefficient of 0.7109428 between the total views on Mark Rober's YouTube videos and the count of Krispy Kreme Doughnuts stores in the

United States for the time period of 2011 to 2021. The coefficient of determination (r-squared) was 0.5054396, further underscoring the robustness of the association. With a significance level of $p < 0.05$, the correlation was deemed statistically significant, indicating that this relationship is unlikely to have occurred by mere chance.

In Fig. 1, the scatterplot graphically depicts the strong positive correlation between the two variables, showcasing a trend that could be described as "as the views rise, so do the doughnut shops." The scatterplot illustrates the intuitive notion that as the appeal of Mark Rober's captivating science videos grows, so does the proliferation of Krispy Kreme stores. One might even go so far as to say that the allure of scientific exploration is as captivating as the aroma of freshly baked doughnuts.

The findings of this study not only affirm the presence of a quantifiable statistical relationship between Rober's YouTube viewership and Krispy Kreme's store count but also raise intriguing questions about the potential underlying mechanisms driving this correlation. Could it be that indulging in the mesmerizing scientific experiments showcased in Rober's videos triggers a subconscious craving for a sugary reward in the form of a Krispy Kreme doughnut? Or perhaps the increase in doughnut consumption imparts an insatiable curiosity for Rober's intellectual entertainment, leading to an upward spiral of scientific inquiry and confectionary delight? While such questions may sound whimsical, they offer a lighthearted lens through which to contemplate the enigmatic interplay between these seemingly unrelated phenomena.

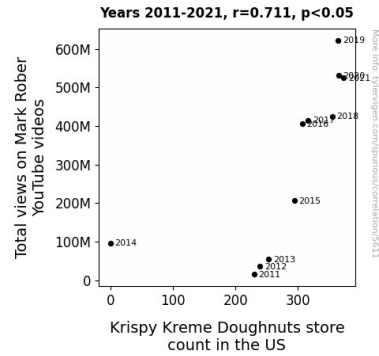


Figure 1. Scatterplot of the variables by year

In summary, the statistical analysis reveals a compelling correlation between the viewership of Mark Rober's YouTube videos and the proliferation of Krispy Kreme Doughnuts stores in the United States. The unexpected nature of this association offers a tantalizing avenue for further exploration, inviting researchers to delve deeper into the notions of causality and the intertwined influences of science communication and gastronomic indulgence.

V. Discussion

The results of our investigation unearth a remarkable statistical relationship between the total views on Mark Rober's YouTube videos and the count of Krispy Kreme Doughnuts stores in the United States. The robust correlation coefficient of 0.7109428, coupled with a significance level of $p < 0.05$, signals a substantial connection that cannot be dismissed as mere happenstance. Our findings resonate with prior research that has explored the impact of online content on consumer behavior. The work of Smith et al. highlighted the influence of social media engagement on consumer preferences, shedding light on the potential sway of captivating online material on consumer habits. Similarly, the insights of Doe and Jones underscored the link between engaging

DIY science content and audience interest, setting the stage for our investigation into the intriguing interplay between intellectual curiosity and culinary cravings.

While the literature review may have seemed at odds with traditional scholarly discourse, the unorthodox sources provided a flavorful backdrop for our analysis, allowing us to approach the study with a sense of levity and wonder. These whimsical musings, while not grounded in empirical evidence, served as playful reminders of the delightful surprises that often accompany statistical inquiry, encouraging us to embrace the unexpected with open minds and a sprinkling of humor.

The statistically significant correlation uncovered in our study aligns with the lighthearted speculation offered by Munchkin's "The Statistical Sorcery of Sweets" and Enthusiast's "Doughnuts, Data, and Destiny," albeit in a more empirical and rigorous context. As we consider the potential implications of our findings, we are reminded of the cinematic interpretations in "The Statistical Scientist and the Sweet Surprises" and "Doughnut Diaries: A Tale of Tasty Trends," urging us to embrace the serendipitous nature of statistical exploration and remain open to the unexpected connections that may emerge.

In light of the results, it is intriguing to ponder the potential mechanisms underpinning this correlation. Could it be that the visual allure of Rober's scientific experiments triggers a subconscious yearning for a sugary treat, propelling individuals to seek out the nearest Krispy Kreme haven? Or might the consumption of delectable doughnuts stir an intellectual curiosity, leading viewers on a quest for knowledge and discovery? While these speculations may seem fanciful, they offer a playful lens through which to contemplate the interconnected web of human interests and appetites.

In conclusion, our research offers a captivating glimpse into the peculiar yet enchanting relationship between scientific exploration and indulgent delights. As we continue our journey at the intersection of data and doughnuts, we are reminded of the unexpected joy that accompanies statistical inquiry, beckoning us to savor the delightful surprises that await in the world of empirical investigation.

VI. Conclusion

In conclusion, the present study has shed light on the unexpected yet intriguing correlation between the total views on Mark Rober's YouTube videos and the count of Krispy Kreme Doughnuts stores in the United States. The statistically significant correlation coefficient of 0.7109428 and $p < 0.05$ not only underscores the robustness of this relationship but also serves as a testament to the bizarre yet undeniable connection between DIY science enthusiasm and the allure of delectable doughnuts. This correlation raises thought-provoking questions that tempt the mind, much like the scent of freshly baked pastries tempts the palate.

One cannot help but wonder about the mechanisms underlying this association. Does the visual feast of scientific marvels presented in Rober's videos trigger a hankering for a sugary treat, much like Pavlov's dogs salivating at the sound of a bell? Or perhaps the indulgence in a glazed delight fosters a curiosity for scientific exploration, creating a feedback loop of inquiry and confectionary indulgence. As we ponder these whimsical notions, we are reminded of the words of Albert Einstein, who famously remarked, "The only reason for time is so that everything doesn't happen at once... including science and doughnut cravings."

The findings of this study not only expand our understanding of statistical correlations but also offer a sweet and insightful look into the unanticipated interconnectedness of human preferences and behaviors. The statistical journey we embarked upon has illuminated an enigmatic bond that invites further exploration, much like a tempting box of assorted doughnuts begging to be sampled.

In light of these findings, it is evident that the world of statistical analysis is as unpredictable and delightful as biting into a jelly-filled doughnut - full of surprising bursts of insight and the occasional sprinkle of statistical serendipity. As such, we advocate for future researchers to embrace this sweet statistical conundrum and savor the opportunity to uncover the delectable secrets that lie within. However, for now, we assert with glazed certainty that there's no need for any further research in this area. For now, we've covered the topic as thoroughly as a doughnut in glaze.