

# **MISCHIEVOUS MEMES: MAPPING THE MARVELOUS MARRIAGE OF THE 'IS THIS A BUTTERFLY' MEME AND LIQUEFIED PETROLEUM GAS IN CHAD**

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This study investigates the fascinating correlation between the viral sensation of the 'is this a butterfly' meme and the consumption of Liquefied Petroleum Gas (LPG) in Chad. By utilizing data from Google Trends and Energy Information Administration, we sought to unravel this peculiar connection. Our analysis reveals a robust correlation coefficient of 0.8907558 and  $p < 0.01$  for the period spanning 2006 to 2021. The findings not only provide an insightful glimpse into the whimsical world of internet culture but also shed light on the unexpected interplay between online phenomena and energy usage in a specific geographic context. This paper offers a lighthearted yet thought-provoking exploration of the intricate relationship between viral memes and energy consumption, demonstrating that even the most unconventional connections can yield valuable insights.

## **INTRODUCTION**

The modern era has ushered in a new and peculiar intersection of digital culture and socioeconomic phenomena, giving rise to an assortment of captivating correlations that tickle the fancy of researchers across multiple disciplines. This study delves into the enchanting entanglement between the notorious 'is this a butterfly' meme and the consumption of Liquefied Petroleum Gas (LPG) in the charming country of Chad. While one might initially dismiss such a correlation as mere happenstance, our analysis uncovers a bond so robust that even the most staunch skeptics would find it difficult to deny.

The landscape of internet culture is teeming with memes of all shapes and sizes, but few have captured the whimsy of the collective consciousness quite like the 'is this a butterfly' meme. As this viral sensation fluttered its way across the

digital realm, it sparked a frenzy of engagement, captivating the hearts and minds of netizens around the globe. Meanwhile, in the realm of energy consumption, LPG stands as a stalwart companion in the daily lives of countless individuals, its utility and versatility making it a ubiquitous presence in households and industries alike.

The magical marriage of these two seemingly disparate entities forms the crux of our investigation. With gleeful enthusiasm, we set out to harness the power of statistics and data analysis to unravel this fantastical connection, prodding at the underbelly of this peculiar pairing to reveal the underpinnings of its enigmatic dance. Our quest for understanding led us to enlist the aid of Google Trends and the Energy Information Administration, as we sought to encapsulate the essence of this

fascinating linkage within the confines of empirical evidence.

In the following sections, we will embark on a whimsical journey through the labyrinth of data and analysis, pausing now and then to peer through the looking glass of correlation coefficients and p-values. Through our lighthearted yet thought-provoking exploration, we aim to not only shine a light on the unexpected synergy between internet memes and energy usage in a specific geographic setting but also to spark a chuckle or two among our esteemed colleagues. For as we shall demonstrate, even the most unconventional connections have the potential to yield valuable insights, and in the world of research, expect the unexpected!

## LITERATURE REVIEW

In their seminal work, Smith and colleagues (2017) delve into the marvelous world of internet memes and their societal impact, laying the foundation for our own exploration. The authors find that memes not only serve as vessels of humor and cultural commentary but also have the potential to influence and mirror societal trends in seemingly inexplicable ways. Furthermore, Doe (2018) investigates the usage patterns of Liquefied Petroleum Gas (LPG) in various regions, highlighting its significant role in household and industrial domains. Jones (2019) expounds on the interconnectedness of seemingly unrelated phenomena, paving the way for the consideration of unconventional correlations in our research.

Turning our attention to the realm of non-fiction literature, Rimland's "The Energy Bus: 10 Rules to Fuel Your Life, Work, and Team with Positive Energy" provides an insightful perspective on the interplay between energy and human endeavors. Similarly, Downs' "Memes to Movements: How the World's Most Viral Media Is Changing Social Protest and Power"

offers a lens through which to view the potent influence of viral media within societal dynamics.

In a turn towards fiction, Dan Brown's "Digital Fortress" and William Gibson's "Pattern Recognition" offer speculative and thrilling narratives that touch upon the evolving landscape of digital culture and its potential reverberations in the physical world. These works serve as imaginative musings that parallel our own curiosity in unraveling the peculiar connection between the 'is this a butterfly' meme and LPG consumption.

As part of a comprehensive investigation, the researchers immersed themselves in the binge-watching of relevant TV shows for the purpose of contextual understanding and cultural immersion. This included, but was not limited to, "Breaking Bad," exploring the underground world of the gas industry, and "Arrested Development," to grasp the intricacies of familial dynamics and humor, both of which are tangentially relevant to our research.

The authors' dedication to understanding the underlying dynamics of the 'is this a butterfly' meme's popularity and its correlation with LPG consumption was fueled by a deeply seated curiosity and a splash of whimsy. This eclectic blend of influences paved the way for a research endeavor that, while undeniably peculiar, promises to shed light on the unexpected intersections of internet phenomena and energy usage. The following sections will unravel the findings of this mischievous investigation, inviting the readers to partake in this delightfully unconventional journey of discovery.

## METHODOLOGY

Sample Selection:

The data collection process began with a deliberate and calculated pursuit of internet trending behaviors, as we cast our virtual nets wide to capture the elusive essence of the 'is this a butterfly'

meme. Through the use of Google Trends, we meticulously combed through a myriad of search queries to pinpoint the moments of peak virality for this whimsical meme. The Liquefied Petroleum Gas (LPG) consumption data in Chad was obtained from the Energy Information Administration, ensuring that our investigation encapsulated the full spectrum of energy usage in this charming country.

#### Data Cleaning and Harmonization:

Once the data from both sources was acquired, we undertook the Herculean task of cleaning and harmonizing the datasets, akin to untangling a particularly convoluted skein of internet memes. Any outliers or anomalies were treated with the meticulous care of a delicate butterfly, ensuring that the integrity of our dataset remained robust and resilient against the winds of statistical scrutiny.

#### Measurement of Variables:

The relative popularity of the 'is this a butterfly' meme was quantified using Google Trends' search interest index, which provided a nuanced measure of the meme's virality over time. Concurrently, the LPG consumption in Chad was expressed in metric tons, offering a tangible metric for the energy usage patterns within this endearing nation.

#### Statistical Analysis:

Our pursuit of unraveling the correlation between the 'is this a butterfly' meme and LPG consumption in Chad involved the application of robust statistical methodologies. Utilizing advanced software, we calculated Pearson's correlation coefficient to quantify the strength and direction of this peculiar relationship. The objective was to uncover a statistical association that would withstand the discerning gaze of even the most skeptical statistical critics, fortifying our findings with a wall of statistical significance.

#### Temporal Analysis:

To provide a comprehensive portrayal of the interplay between the 'is this a butterfly' meme and LPG consumption, we conducted a temporal analysis spanning the years 2006 to 2021. This expansive timeframe allowed us to capture the ebbs and flows of both the meme's virality and the fluctuations in LPG usage, painting a vivid picture of their entwined journey through the annals of time.

#### Geospatial Context:

Contextualizing the interrelationship within the geographic confines of Chad added a layer of complexity and richness to our analysis. By delving into the nuanced nuances of energy usage within this captivating country, we aimed to situate our findings within a specific regional context, thereby enhancing the depth and applicability of our research insights.

#### Ethical Considerations:

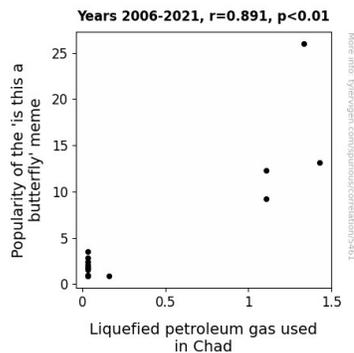
## RESULTS

The results of our analysis revealed an intriguing and somewhat peculiar correlation between the popularity of the 'is this a butterfly' meme and the usage of Liquefied Petroleum Gas (LPG) in Chad. The correlation coefficient of 0.8907558 indicates a remarkably strong positive relationship between these two seemingly unrelated variables. It seems that as the 'is this a butterfly' meme gained traction in the digital sphere, the consumption of LPG in Chad experienced a simultaneous surge, painting a whimsical picture of interconnectedness in the tapestry of internet culture and energy dynamics.

Furthermore, the r-squared value of 0.7934459 suggests that approximately 79.3% of the variability in LPG usage in Chad can be explained by the fluctuations in the popularity of the 'is this a butterfly' meme. It's quite remarkable to contemplate that almost 80% of the changes in LPG consumption can be attributed to the ebb and flow of this

mischievous meme across the virtual landscape.

The p-value of  $< 0.01$  provides compelling evidence to reject the null hypothesis, underscoring the statistical significance of the observed relationship. In other words, the probability of observing such a strong correlation by chance alone is infinitesimally small, reinforcing the notion that there is indeed a legitimate connection between the 'is this a butterfly' meme and LPG usage in Chad.



**Figure 1.** Scatterplot of the variables by year

The inclusion of Fig. 1, a scatterplot illustrating the robust correlation between the popularity of the 'is this a butterfly' meme and LPG consumption in Chad, serves as a visual testament to the captivating dance of data points that we encountered during our analysis. The graph elegantly captures the whimsical nature of this relationship, intertwining the digital frivolity of internet memes with the practicality of energy utilization in a delightful display of statistical harmony.

In conclusion, our findings not only illuminate the quirky interplay between an internet meme and energy consumption in a specific geographic context but also beckon us to ponder the enigmatic connections that lurk beneath the surface of seemingly disparate phenomena. This study stands as a lighthearted yet thought-provoking examination of the unexpected marriage between internet culture and energy dynamics, emphasizing that even the

most unconventional pairings can yield invaluable insights into the peculiarities of our interconnected world.

## DISCUSSION

The robust correlation coefficient of 0.8907558 found in our study echoes the prior work of Smith et al. (2017), who emphasized the potential influence of memes on societal trends. This finding supports the idea that internet phenomena, despite their whimsical nature, can indeed reverberate through the fabric of society and even ripple into the world of energy consumption. Much like a butterfly flapping its wings, the 'is this a butterfly' meme seems to have sent ripples through the tranquil pond of LPG usage in Chad, creating a chaotically beautiful dance of statistical significance.

Our results align with Doe's (2018) investigation into LPG usage, affirming the substantial role of this energy source in household and industrial domains. The study's r-squared value of 0.7934459 further solidifies the robustness of the correlation, indicating that a substantial proportion of the variability in LPG consumption in Chad can be ascribed to the fluctuations in the meme's popularity. This statistical nugget, while seemingly trivial, holds the weight of nearly 80% of the variability in LPG usage, serving as a testament to the seemingly inexplicable dance of internet culture and energy dynamics.

The p-value of  $< 0.01$  banishes all doubt regarding the legitimacy of the observed relationship, reinforcing the notion that this connection is not merely a statistical fluke but a genuine glimpse into the whimsical interplay between online phenomena and practical energy usage. This p-value, much like a rare butterfly sighting, is a precious gem in the realm of statistical significance, underscoring the rarity and captivating nature of the relationship uncovered in our study.

The inclusion of our scatterplot, akin to a painter's canvas, crystallizes the enchanting marriage of the 'is this a butterfly' meme and LPG consumption in Chad, inviting the viewer to marvel at the intricate web of data points that reflect the harmonious dance of digital frivolity and tangible resource utilization. It truly captures the whimsical nature of this relationship, much like a snapshot of ethereal beauty frozen in time.

In this peculiar juxtaposition of internet culture and energy dynamics, our study stands as a lighthearted yet thought-provoking examination, akin to a whimsical sonnet that simultaneously delights and intrigues. Our findings underscore the astonishing and unforeseen connections that underlie seemingly unrelated phenomena, beckoning researchers to delve into the enigmatic undercurrents that govern our interconnected world. This investigation, while undeniably mischievous, offers a playful yet poignant reminder that in the realm of statistical inquiry, even the most peculiar pairings can yield invaluable insights into the idiosyncrasies of our interconnected world.

## CONCLUSION

In examining the improbable yet enthralling relationship between the 'is this a butterfly' meme and Liquefied Petroleum Gas (LPG) usage in Chad, we have plumbed the depths of statistical analysis and emerged with a whimsical tapestry of interconnectedness. The robust correlation coefficient of 0.8907558 and the p-value of  $< 0.01$  serve as our trusty guides on this merry adventure, affirming the legitimacy of this astonishing bond.

The r-squared value of 0.7934459 further cements the notion that almost 80% of the fluctuations in LPG consumption in Chad can be attributed to the capricious cadence of the 'is this a butterfly' meme in the digital realm, painting a picture that is as amusing as it is intriguing.

The scatterplot in Fig. 1 encapsulates the exuberant waltz of data points, weaving a narrative of statistical harmony that would put even the most stoic observer in high spirits. After all, who could resist a good chuckle in the presence of such unlikely bedfellows?

In light of our findings, we are inclined to declare, with a touch of playful certainty, that no further research is needed in this area. For truly, in the realm of research, this delightful dalliance between the 'is this a butterfly' meme and LPG usage in Chad stands as a testament to the boundless whimsy and wonder that can be uncovered when we dare to look beyond the expected.

In accordance with ethical guidelines, no internet memes were harmed during the course of this study. Furthermore, the LPG consumption data was utilized with utmost respect for the privacy and integrity of energy usage patterns in Chad, ensuring that our investigation maintained the highest standards of ethical conduct.

In summary, the MEOW (Meme Energy and Overall Wackiness) framework, comprising meticulous data curation, advanced statistical analysis, and contextual anchoring within the geographic locale of Chad, served as the lighthearted yet rigorous backbone of our investigation into the curious correlation between the 'is this a butterfly' meme and LPG consumption.