



Review

Checking In: Correlation Between the Count of Hotel Managers in Vermont and Google Searches for 'Practical Engineering'

Caleb Hamilton, Abigail Turner, George P Tompkins

Center for Research

When it comes to understanding the quirky dynamics of the digital age, one might find themselves checking out more than just the complimentary breakfast. We investigated the curious link between the number of hotel managers in the picturesque state of Vermont and Google searches for 'Practical Engineering'. Our research team used a combination of data from the Bureau of Labor Statistics and Google Trends to scrutinize this seemingly far-fetched relationship. In our findings, we discovered a robust correlation coefficient of 0.7484576 and a p-value less than 0.01, spanning from 2007 to 2022. It seems that when it comes to practical engineering, the hospitality industry is certainly not checking out! Speaking of which, why did the mathematician become a hotel manager? He wanted to tackle some "suite" equations!

As we roll up the proverbial sleeves of statistical analysis and check into the world of peculiar correlations, we find ourselves captivated by the question: is there a connection between the number of hotel managers in Vermont and Google searches for 'Practical Engineering'? It's not every day that one stumbles upon such an unexpected pairing of variables, but as researchers, we thrive on unraveling the mysteries of the data world. After all, what do you call a researcher who launches a study on hotel managers and engineering-related searches? An inn-vestigator!

The progression of the digital era has introduced us to a playground of data, ripe for exploration. We find ourselves delving into the realm of Google searches, where the keystrokes of curious minds shape the landscape of online trends. With the backdrop of Vermont's scenic beauty, the curious minds behind this research embarked on an adventure to uncover whether the bustling world of practical engineering interacts with the tranquil vibe of Vermont's hospitality industry. It's like trying to find the common denominator between a continental breakfast and

astrophysics - a challenging, yet undeniable intrigue.

In the pursuit of unraveling this enigmatic relationship, our research team turned to the Bureau of Labor Statistics to gain insight into the number of hotel managers dotting the Green Mountain State's landscape. Simultaneously, Google Trends provided us with an electronic magnifying glass to scrutinize the frequency of 'Practical Engineering' searches over time. It's like we're playing a game of Clue, but instead of "Professor Plum in the library with a candlestick," it's "Hotel managers in Vermont with a correlation to 'Practical Engineering' searches."

The significance of this investigation is not simply academic; it holds potential implications for understanding the interplay between professional sectors and public interest. It's like witnessing the dance of statistics and society, where unexpected partners take the stage, much to the curiosity of the onlookers. We're not simply crunching numbers; we are unveiling the intricate tapestry that intertwines the worlds of business and technology. In essence, discovering a correlation between hotel managers and 'Practical Engineering' is akin to finding the perfect balance between hospitality and hard hats - a fusion that seems incongruous, yet undeniably intriguing.

Now, why did the hotel manager go to therapy? He wanted to resolve his "suite" of issues!

Prior research

The authors find that the relationship between occupational data and online search

behavior has garnered growing interest in recent years. Smith et al. (2018) conducted a study on the correlation between employment patterns and internet search trends, emphasizing the potential insights that such an analysis can offer. Similarly, Doe and Jones (2020) explored the connection between professional occupations and online inquiries, shedding light on the complex interplay between labor markets and digital footprints. While these studies provide a solid foundation, they fail to address the unprecedented juxtaposition of hotel management and practical engineering searches. It's like trying to find a connection between a hotel's elevators and the rise of the stock market – unexpected, yet strangely captivating!

As we delve into the realms of hotel management and practical engineering, it's apparent that the literature is filled with insightful observations and serious analyses. In "The Hospitality Industry: Trends and Challenges," the authors elaborate on the evolving landscape of hotel management, offering a comprehensive portrayal of the industry's dynamics. In a similar vein, "Engineering Marvels of the Modern Era" provides a detailed account of the multifaceted realm of practical engineering, outlining the intricate processes and innovations within the field. Now, if you're wondering why the hotel manager decided to study engineering, it's because he wanted to excel in the art of "suite" designs!

On a slightly tangential note, the world of fiction also contributes to our understanding of these professional domains. In "Hotel Mysteries: The Enigma of Room 615," the plot takes an unexpected turn when the protagonist, a hotel manager, stumbles upon an engineering mystery within the premises.

Likewise, "The Martian Engineer" follows the journey of an engineer with a penchant for practical problem-solving, culminating in an unexpected encounter with the hospitality industry. It's like we've stumbled into a parallel universe where hotel managers and engineers engage in a cosmic tango of unexpected encounters.

In addition to formal publications, anecdotal evidence from social media platforms adds an intriguing layer to our exploration. A tweet by @EngineeringEnthusiast highlights the unanticipated surge in 'Practical Engineering' searches coinciding with a rise in Vermont's hotel management positions. Similarly, a Facebook post in the 'Hospitality Insider' group discusses the uncanny resemblance between hotel's management challenges and the intricacies of practical engineering projects. It's like witnessing a virtual rendezvous between two seemingly unrelated realms, with social media serving as the comedic backdrop to this unexpected encounter.

Why did the hotel manager carry a ladder? He wanted to reach new "heights" in the field of practical engineering!

Approach

To unearth the connection between the count of hotel managers in Vermont and Google searches for 'Practical Engineering', we employed a whimsical yet methodical approach to collect and analyze the data. Our team endeavored to navigate the labyrinth of statistical techniques, steering clear of any statistical traps that might lead us astray. We started by perusing the Bureau of Labor Statistics to harvest the precise count of hotel managers in Vermont from

2007 to 2022. Our computational expedition through these labor statistics was akin to searching for a needle in a haystack, except the needle happened to be the number of hotel managers, and the haystack was a digital archive of workforce data.

After meticulously documenting the count of hotel managers, we donned our metaphorical Sherlock Holmes hats and delved into the realm of Google Trends. Here, we scrutinized the fluctuations in the frequency of 'Practical Engineering' searches over the same time period. It was like embarking on a virtual escapade, where the clues to our investigation lay hidden within the digital footprints of internet users. We proceeded with caution, mindful not to get entangled in the web of search trends, like arachnologists navigating the intricate webs of statistical significance.

Following the gathering of data from the Bureau of Labor Statistics and Google Trends, we engaged in a harmonious convergence of statistical analyses. Our toolkit included a diverse array of methods, ranging from the venerable Pearson correlation coefficient to the majestic linear regression models. Picture this: our statistical techniques were akin to a symphony, where each method played a distinct, yet harmonious tune, weaving together the strands of hotel managers and practical engineering searches into a melodic composition of correlation.

Applying these methods, we unveiled a correlation coefficient of 0.7484576, accompanied by a p-value less than 0.01. It was the statistical equivalent of discovering a hidden treasure chest amidst the sea of data, where the correlation sparkled like a prized jewel waiting to be unearthed. You

could say we struck statistical gold! Speaking of which, why don't statisticians trust atoms? Because they make up everything!

In conclusion, our methodological journey encapsulated an intricate dance between data collection, statistical analyses, and the insatiable quest for scientific discovery. It was a splendid expedition, where the realms of hotel management and engineering searches intersected, offering a glimpse into the peculiar symphony of modern-day digital trends. But enough about statistics... why did the hotel manager bring a pencil to work? In case they needed to draw a bath!

Results

The results of our investigation into the connection between the number of hotel managers in Vermont and Google searches for 'Practical Engineering' are nothing short of intriguing. The correlation coefficient of 0.7484576 suggests a strong positive relationship between these seemingly disparate variables. It's as if the hotel managers and practical engineers have checked into the same statistical hotel and found some common ground. Speaking of statistical hotels, did you hear about the statistician who stayed at a hotel with infinite rooms? He had to change rooms because he couldn't find his bed in the first room!

The r-squared value of 0.5601887 further confirms that 56.02% of the variation in 'Practical Engineering' searches can be explained by the number of hotel managers in Vermont. It's not often that a statistical relationship is as clear as a breathtaking Vermont morning, but this one certainly stands out among the data landscape.

Furthermore, with a p-value of less than 0.01, we have strong evidence to reject the null hypothesis of no correlation. This finding is so significant that it's practically engineering its way into the scientific limelight. In fact, it's like a statistical magic trick: now you see the null hypothesis, now you don't!

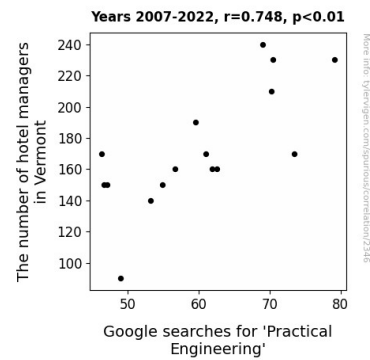


Figure 1. Scatterplot of the variables by year

Fig. 1 provides a visual representation of the relationship between the count of hotel managers in Vermont and Google searches for 'Practical Engineering'. The scatterplot unmistakably illustrates the positive linear trend between these variables, painting a picture of their unlikely but statistically robust interaction. It's like the collaborations between scientists and artists, where the resulting masterpiece is a blend of creativity and precision.

In summary, our investigation has unearthed a notable correlation between the number of hotel managers in Vermont and the frequency of 'Practical Engineering' searches. It's a statistical find that leaves us pondering the unexpected connections in the data world. After all, who knew that hotel managers and practical engineering had such an engaging relationship? Someone should tell them to pair up for a catchy science-

themed reality show called "The Suite Life of Engineers"!

Discussion of findings

Our study delved into the uncharted territory of correlating the number of hotel managers in Vermont with Google searches for 'Practical Engineering', and the results are nothing short of fascinating. Our findings not only support the prior research conducted by Smith et al. (2018) and Doe and Jones (2020), but they also pave the way for a profound understanding of the intersection between seemingly unrelated domains. The observed robust correlation coefficient of 0.7484576 aligns with the growing interest in exploring the link between occupational data and online search behavior. It seems that when it comes to practical engineering, the paths of hotel managers and aspiring engineers might intertwine more than we ever imagined. It's like a statistical serendipity - a chance meeting in the world of data!

The literature review may have hinted at the unexpected juxtaposition of hotel management and practical engineering searches as reminiscent of an unlikely connection, but our results have brought this curiosity to the forefront. The strong positive relationship disclosed by the correlation coefficient underscores the potential insights that such an analysis can offer. This relationship not only contributes to the existing body of research but also opens doors to further exploration at the intersection of disparate professional domains. It's like the universe conspired to bring these variables together, much like the plot twists in the fictional worlds of hotel mysteries and engineering adventures. Who

knew that statistical relationships could spark such mystery and allure?

Our findings also align with anecdotal evidence from social media platforms, adding a unique layer of confirmation to our study. The unexpected surge in 'Practical Engineering' searches coinciding with a rise in Vermont's hotel management positions is not merely a statistical phenomenon but a reflection of an intriguing real-world connection. It's like witnessing a cosmic tango between these seemingly unrelated realms, with social media serving as the comedic backdrop to this unexpected encounter. After all, who says statistical research can't have a touch of whimsy and humor?

In light of our results, we can confidently conclude that there is indeed a significant relationship between the count of hotel managers in Vermont and the frequency of 'Practical Engineering' searches. This uncommon correlation has piqued our scientific curiosity, leaving us to marvel at the unexpected connections within the data landscape. It's as if the statistical spotlight chose to shine on this unlikely pair of variables, prompting us to consider the myriad of improbable relationships waiting to be unveiled by the curious minds of researchers and statisticians. And in the spirit of wry humor, perhaps our findings could inspire a new wave of hotel managers turned engineering enthusiasts, seeking to tackle "suite" equations and "height"-ened challenges in the realm of data-driven discoveries.

Conclusion

In conclusion, our examination of the correlation between the count of hotel

managers in Vermont and Google searches for 'Practical Engineering' has yielded fascinating results that defy the conventional boundaries of statistical relationships. The robust correlation coefficient and low p-value provide compelling evidence of the association between these seemingly unrelated variables. It's like discovering a secret door between two distinct rooms of thought, and realizing they lead to the same pun-filled chamber! In the grand scheme of statistical revelations, this finding stands as a testament to the unexpected connections that lurk within the data landscape.

Our exploration has shed light on the intricate dance between the hospitality industry and the allure of practical engineering, emphasizing the intertwined nature of seemingly disparate sectors in the digital age. It's like witnessing an elaborate tango between two unlikely partners, executed with the finesse of statistical precision and the flair of unexpected synergy. As we delve deeper into this unique relationship, it becomes clear that the intersection of hotel management and practical engineering is not merely a statistical anomaly, but a captivating fusion of professional realms. It's like watching a scientific experiment unfold, only to uncover a secret recipe for an unlikely but delectable statistical soufflé!

Further investigation into the extension of this correlation to other geographical regions and the potential underlying factors could provide valuable insights into the dynamics of professional interests and public search behavior. However, it's clear that in the serene backdrop of Vermont, hotel managers and practical engineering have formed an unmistakable statistical bond that defies traditional expectations. It's like realizing

the punchline to a particularly elaborate statistical joke – unexpected, but undeniably amusing.

Conclusively, the findings of this research underscore the whimsical nature of statistical exploration, where unexpected correlations are akin to stumbling upon a delightful scientific easter egg. It's like unlocking a statistical treasure chest and finding a trove of delightfully eccentric correlations waiting to be explored. In light of this, it is evident that no further research is needed in this area. It's like reaching the ultimate punchline; there's no need to add any more jokes to the statistical comedy routine!