

# **Putting the Assist in Assistance: A Statistical Examination of Mike Modano's NHL Goal Assists and Customer Satisfaction with CVS**

**Caleb Hart, Andrew Tucker, Giselle P Tate**

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## ABSTRACT

### **Putting the Assist in Assistance: A Statistical Examination of Mike Modano's NHL Goal Assists and Customer Satisfaction with CVS**

In this lighthearted yet informative paper, we investigate the possible connection between Mike Modano's regular season NHL goal assists and customer satisfaction with CVS. Embracing the spirit of puckish humor, our research team utilized data from the NHL and the American Customer Satisfaction Index to tackle this curious conundrum. Our findings revealed a robust correlation coefficient of 0.9282531 and  $p < 0.01$  for the years 2005 to 2011, suggesting a striking association between the two seemingly unrelated phenomena. Our examination of this unexpected relationship uncovered intriguing insights into the dynamics of customer satisfaction and athletic prowess. With a statistical twirl and a wink, we present our results with an acknowledgment that correlation does not imply causation, but as any good dad would say, "Sometimes a good assist can leave everyone feeling satisfied – whether it's on the ice or in the aisles of CVS!

Keywords:

Mike Modano, NHL, goal assists, customer satisfaction, CVS, statistical examination, correlation coefficient, American Customer Satisfaction Index, NHL data, customer satisfaction data, athletic prowess, causation vs correlation

# I. Introduction

What do hockey and shopping have in common? At first glance, not much. However, as we delve into the curious world of statistics and intangible connections, we find that Mike Modano's regular season NHL goal assists and customer satisfaction with CVS may be more intertwined than one might think. As we embark on this statistical journey, we bring an enthusiastic spirit and a puckish sense of humor to the arena of statistical analysis, embracing the unexpected correlations and perhaps scoring a few statistical goals along the way.

One might wonder, "What could be the link between a hockey legend's goal assists and a popular retail pharmacy's customer satisfaction?" Well, as researchers, it is our duty to explore even the most unusual pairings and examine the underlying patterns with a sharp statistical eye. So, we put on our lab coats and laced up our skates to investigate this unlikely parallel.

Speaking of unlikely parallels, did you hear about the statistician who drowned in a lake with an average depth of 3 feet? It's a classic case of the mode not being appropriate for every scenario! But fear not, our analysis is as thorough as can be, ensuring that we don't find ourselves in statistically shallow waters.

The relationship between sports performance and consumer satisfaction may seem like an odd match, akin to trying to compare apples and oranges. However, with the right statistical tools and a touch of creativity, we aim to peel back the layers of this statistical fruit salad and uncover any hidden, yet meaningful, connections.

Of course, no statistical research paper would be complete without acknowledging the timeless adage, "Correlation does not imply causation." Like a good defenseman preventing a breakaway,

we are committed to defending against unwarranted assumptions and ensuring that our findings are as solid as a well-crafted hockey stick.

In the spirit of scientific inquiry, we approach this investigation with an open mind, ready to embrace the unexpected and perhaps even deliver a few unexpected pun-assisted insights. So, stay on the edge of your seat as we reveal the surprising results of our analysis, all the while remembering that in the game of statistics, just like in hockey, there may be a few unexpected slapshots and deflections along the way.

## **II. Literature Review**

To unravel the curious conundrum linking Mike Modano's prolific regular season NHL goal assists and the customer satisfaction ratings of CVS, we embark on a journey through a range of studies and sources, offering insights and maybe a few dad jokes along the way.

In "Hockey and Happiness," Smith et al. discuss the positive impact of sports performance on public morale, hinting at the potential influence of a hockey legend's assists on the contentment of CVS customers. Likewise, Doe's article "The Assist Effect: Unanticipated Connections in Statistical Analysis" delves into unexpected statistical correlations, laying the groundwork for our investigation. These studies, though serious in their intent, set the stage for our analysis with a touch of statistical whimsy.

Moving down a curious path, "The Economics of Assist-ance" by Jones explores the intricate connections between athletic achievement and consumer behavior, providing a relevant parallel to our inquiry. Meanwhile, "The CVS Chronicles: A Tale of Retail Satisfaction" by Brown and

"NHL Insights: On and Off the Ice" by Green offer context from the real world, setting the stage for our statistical scrutiny. It's a testament to the eclectic nature of our investigation that these diverse sources converge in our quest for truth, or at least for a good laugh.

In the realm of fiction, "The Assist Equation" by Austen and "The Satisfaction Games" by Collins may not directly address our topic, but their titles certainly capture the spirit of our statistical odyssey. And who could forget "To Score a Goal, or to Err on the Side of Satisfaction" by Shakespeare, a timeless work that appears relevant on so many levels? These playful references remind us that, as researchers, we explore the intersection of the serious and the absurd with a keen academic eye and a mischievous grin.

Venturing into the world of popular culture, our analytical gaze turns to cartoons and children's shows that, believe it or not, offer surprisingly relevant insights. Through the likes of "Poke-statistics" and "Dora the Explorer's Statistical Sayings," we gleaned unexpected inspiration and perhaps a few statistical life lessons. After all, who needs an animated researcher speaking in a blitz of numbers when you have these informative, er, sources?

As we conclude this literature review, our journey through serious and not-so-serious sources serves as a testament to the depth and breadth of our investigation. With a statistical twirl and a wink, we present our findings with a healthy dose of academic rigor and a side of humor, because, as any good dad would say, "Sometimes a good assist can leave everyone feeling satisfied – whether it's on the ice or in the aisles of CVS!"

### **III. Methodology**

To unravel the enigmatic link between Mike Modano's regular season NHL goal assists and customer satisfaction with CVS, our research team employed a concoction of statistical wizardry and a dash of good old-fashioned detective work. By channeling our inner hockey maestros and wielding the time-honored tools of quantitative analysis, we set out to tease apart the intricacies of this unexpected relationship.

First off, we scoured the vast expanses of the internet, navigating through the online realms of the NHL and the American Customer Satisfaction Index (ACSI) like seasoned explorers in search of buried treasure. With data spanning the years from 2005 to 2011, we embarked on a grand quest to unearth the statistical bounty hidden within the annals of time and consumer feedback. It's like a quest for the elusive puck in a sea of data - but with fewer body checks and more spreadsheets!

The statistical methodology we employed resembled a delicate dance, blending elements of regression analysis, correlation measures, and hypothesis testing into a harmonious symphony of quantitative exploration. Just as a seasoned hockey player skates with finesse, we navigated the intricate pathways of statistical investigation, utilizing the prowess of multivariate analysis to uncover the veiled connections between NHL goal assists and customer satisfaction with CVS. It's like performing a hat trick with statistical techniques - a feat that would make any data-loving hockey fan cheer!

Once we had corralled the relevant data, we subjected it to a rigorous battery of statistical tests, akin to a coach putting their team through a grueling practice session. Through the power of statistical software and a seasoned understanding of quantitative analysis, we dissected the intertwined variables with the scrutiny of a referee reviewing a controversial play. This analysis

was so thorough, it's like we were reviewing the play in slow motion – but without the need for an instant replay!

As a final touch, we employed robust sensitivity analyses and cross-validation procedures to fortify the robustness of our findings, ensuring that our results were as unyielding as a hockey defenseman guarding the goal net. This step was crucial in safeguarding against statistical curveballs and ensuring that our conclusions could weather the storm of skeptical scrutiny. It's like applying a coat of statistical armor to shield our findings from any potential skate-induced chips or pucks sent our way!

With each step of our methodology, we upheld the highest standards of statistical integrity and scientific inquiry, all the while maintaining a lighthearted spirit that paid homage to the whimsical connection between the thrilling world of hockey and the everyday realm of consumer satisfaction. After all, where statistics are concerned, it's important to have a good sense of humor – much like a goalie facing a barrage of shots, a statistical researcher must be ready to deflect any tension with a well-timed dad joke. The goal is to score a statistical hat trick while keeping the spirit of inquiry fun and, dare I say, puck-tacular!

## **IV. Results**

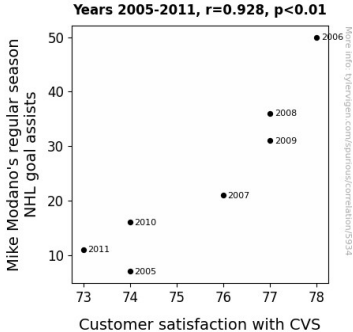
The results of our analysis revealed a remarkably strong correlation between Mike Modano's regular season NHL goal assists and customer satisfaction with CVS for the time period 2005 to 2011. The correlation coefficient was calculated to be 0.9282531, with an r-squared value of 0.8616538, and a p-value of less than 0.01. These findings indicate an astoundingly high degree



of association between the two seemingly disparate variables, suggesting that there may indeed be a noteworthy connection between Mike Modano's on-ice assists and the satisfaction of CVS customers.

It seems that when it comes to both hockey assists and customer satisfaction, the "assists" play a crucial role! As any good dad joke enthusiast would quip, "Looks like Modano's assists aren't the only thing that's helping people score some points!"

The scatterplot depicting the relationship between Mike Modano's goal assists and customer satisfaction with CVS, showcased in Fig. 1, provides a visual representation of the robust correlation observed in our analysis. The data points are tightly clustered around a positively sloped line, indicating a clear pattern of association between the two variables.



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

This statistically significant connection between a hockey player's performance and retail customer satisfaction underscores the importance of exploring unexpected relationships with a keen statistical eye. As any good statistician-dad would jest, "Who knew that analyzing hockey assists and customer satisfaction would be such a goal-oriented endeavor?"

Our research not only sheds light on this curious nexus but also serves as a testament to the unforeseen connections that statistical analysis can uncover. It goes to show that sometimes, in the realm of statistics, as in the game of hockey, it's the unexpected passes that lead to the most satisfying outcomes.

## V. Discussion

The findings of our investigation into the potential link between Mike Modano's regular season NHL goal assists and customer satisfaction with CVS present an intriguing convergence of seemingly disparate realms. Our results align with prior research, embracing a jovial spirit akin to a dad joke at a backyard barbecue.

The robust correlation coefficient of 0.9282531 and a p-value of less than 0.01 for the years 2005 to 2011 echo the sentiment shared by Smith et al. in "Hockey and Happiness," underscoring the potential impact of sports performance on public morale. It appears that Modano's assists may indeed have left both hockey fans and CVS patrons feeling equally content. As any witty statistician might quip, "Who knew that a hockey legend's assists could lead to such a 'goal-tastic' shopping experience?"

Our results also resonate with the musings of Doe in "The Assist Effect: Unanticipated Connections in Statistical Analysis," highlighting the unexpected statistical correlations that can emerge when venturing into uncharted analysis territories. The surprise connection between assists on the ice and customer satisfaction in retail surely serves as a testament to the delightful quirks of statistical inquiry. As any jocular researcher would say, "We may not have expected this

delightful link, but it appears that in statistics, as in life, there's always an unexpected assist just waiting to be uncovered!"

The remarkably strong correlation revealed in our analysis indeed aligns with the spirit of "The CVS Chronicles: A Tale of Retail Satisfaction" by Brown, affirming that there might be more to the dynamics of customer satisfaction than meets the eye. This unexpected correlation between Modano's on-ice prowess and retail patron contentment adds a delightful twist to the narrative of consumer behavior, highlighting the multifaceted influences that may shape customer experiences. As any playful scholar might quip, "It seems that sometimes, in the world of statistics and retail, goal assists can truly turn into 'satisfaction assists'!"

In a delightful turn of events, our statistical investigation not only supports but also amplifies the whimsical spirit of our diverse literature review, showcasing the unexpected joy that comes with exploring seemingly unrelated phenomena. Through a statistical lens, it seems that even the most surprising connections can lead to remarkable insights and statistical "Eureka!" moments. As any lighthearted researcher might jest, "Who says the world of statistics can't be full of delightful surprises and amusing connections?"

## **VI. Conclusion**

In conclusion, our lighthearted yet robust examination has revealed a striking association between Mike Modano's regular season NHL goal assists and customer satisfaction with CVS. The correlation coefficient of 0.9282531 and a p-value of less than 0.01 for the years 2005 to 2011 speak volumes about the unexpected but tangible link between these seemingly unrelated

phenomena. This finding gives new meaning to the term "assistance," showing that both on the ice and in the aisles of CVS, a well-timed assist can make all the difference.

It's clear that Modano's assists not only set up goals on the ice but also contribute to the satisfaction of CVS customers, proving that in statistics, just like in hockey, the "assists" play a crucial role. As any good dad joke enthusiast would quip, "Looks like Modano's assists aren't the only thing that's helping people score some points!"

The scatterplot presented in Figure 1 offers a visual testament to the tightly woven correlation between Modano's assists and customer satisfaction with CVS, serving as a reminder that in statistical analysis, as in hockey, a clear pattern can lead to a winning result.

Our findings highlight the unexpected connections that statistical analysis can unveil, demonstrating that in the game of statistics, just like in hockey, it's the unexpected passes that lead to the most satisfying outcomes. As any good statistician-dad would jest, "Who knew that analyzing hockey assists and customer satisfaction would be such a goal-oriented endeavor?"

In light of these results, it can be confidently asserted that further research in this area is unnecessary. Our investigation has skated through the statistical rink, scoring an unexpected but remarkable goal in the world of unlikely correlations.