

# GATORADE VS. POWERADE:

DOES SWEETENER CHOICE ADD ENERGY TO SALES?

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# EXECUTIVE SUMMARY

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Sports drinks are typically consumed after exertion through sports or other physical activity.

In the quest to meet the demand of consumers who want more nutritious food and beverage products, many manufacturers have put sweeteners under scrutiny. PepsiCo is one such manufacturer. It had been producing Gatorade and G2 using high fructose corn syrup (HFCS) as a sweetener until 2010, when the company changed to sugar, in response to the belief that consumers were more favorable to sugar than to HFCS.

This case study examines the impact the change in sweetener had on sales of PepsiCo's two leading sports-drink brands, Gatorade and G2, after PepsiCo switched from sweetening these drinks with HFCS to sugar. By analyzing sales data provided by Nielsen covering a three-year period that began in early 2010, we were able to isolate the following variables and their impact on sales of Gatorade: seasonality, distribution reach, pricing and promotion. We found the following:

- Although Gatorade's sales did increase somewhat immediately after the switch, those gains were short-lived and had faded considerably in years two and three. The short-term sales increases can be explained in three reasons:
  - *Much of the initial sales gain that Gatorade and G2 experienced in the first year post-switch was due to expanded distribution.*
  - *Sales per point of distribution (SPPD) increased somewhat, but not unusually (controlling for population growth and food-price inflation).*
  - *The remaining increase in SPPD is largely due to increased promotional discounting.*
- The type of sweetener used in Gatorade and G2 brands had no significant impact on share growth over the three years examined.

**THE TYPE OF SWEETENER USED IN GATORADE AND G2 BRANDS HAD NO SIGNIFICANT IMPACT ON SHARE GROWTH OVER THE THREE YEARS EXAMINED.**

IN TALKING ABOUT THE SWEETENER SWITCH IN TERMS OF CONSUMER PERCEPTION, AS OPPOSED TO THINGS LIKE TASTE OR CALORIES, GATORADE IS POINTING TO THE BRAND AND ITS EFFECTIVENESS—IN OTHER WORDS, ITS “BRAND EQUITY,” MEANING THE OVERALL STRENGTH OF ITS BRAND IN THE MINDS OF CONSUMERS.

## BACKGROUND

Recent research from Mintel suggests that consumer concern about the *type* of sweetener in a product is fairly small. For the purpose of this analysis, we must look at the sports-drink category itself.

### THERE ARE ONLY TWO MAJOR PLAYERS IN THE SPORTS-DRINK CATEGORY: GATORADE AND POWERADE

Powerade is owned by the Coca-Cola Company. The fact that Powerade stayed with its strategy of primarily using HFCS makes for interesting comparisons between the two strategies. Now, more than three years after PepsiCo switched the sweetener of the Gatorade and G2 brands, there is abundant Nielsen retail scan data to review, as we test the hypothesis of whether or not type of sweetener is a driver of sales in the sports-drink category.

This analysis includes Gatorade and G2 data, since both actually switched sweeteners; however, we focused primarily on Gatorade, since its sales are over four times those of G2. Both of the brands switched sweeteners at the same time in February 2010. The Nielsen data that we are using covers a full 52 weeks of sales before the switch and 156 weeks after the switch, ending January 19, 2013, which serves as our *reference period*.

To understand what Gatorade was hoping to accomplish by switching sweeteners, we can refer to its public statements made at the time: “to reinforce the functional benefits and quality of Gatorade and G2” and “Through our research and understanding of athletes, we have learned many have a negative perception of HFCS.”<sup>1</sup>

In talking about the sweetener switch in terms of consumer perception, as opposed to taste or calories, Gatorade is pointing to the brand and its effectiveness—in other words, its “brand equity,” meaning the overall strength of its brand in the minds of consumers. This distinction is an important one, as we seek to delineate how Gatorade sales have been driven “by the brand” pre- and post-sweetener switch, as opposed to how sales have been driven by other means.

### CATEGORY? WHAT CATEGORY?

What we are calling the sports-drink “category” is not necessarily a category *per se*, but rather a set of three brands (Gatorade, G2 and Powerade). These brands compete against each other to dominate their category—accounting for 90 and 95 percent of sports drinks—so we addressed our hypotheses using these three brands.

### A DRINK FOR ALL SEASONS—BUT SOME MORE THAN OTHERS

As the name implies, sports drinks are beverages that consumers identify with and consume just after exerting themselves, through sports or other physical activity. Just as U.S. consumers’ physical activity ebbs and flows over the seasons, so does their consumption of sports drinks. The top three four-week periods combined, which coincide with summer, have sales volume more than twice what we see for the bottom three four-week periods, which coincide with winter (137 percent greater, to be exact).

# GATORADE SALES PERFORMANCE

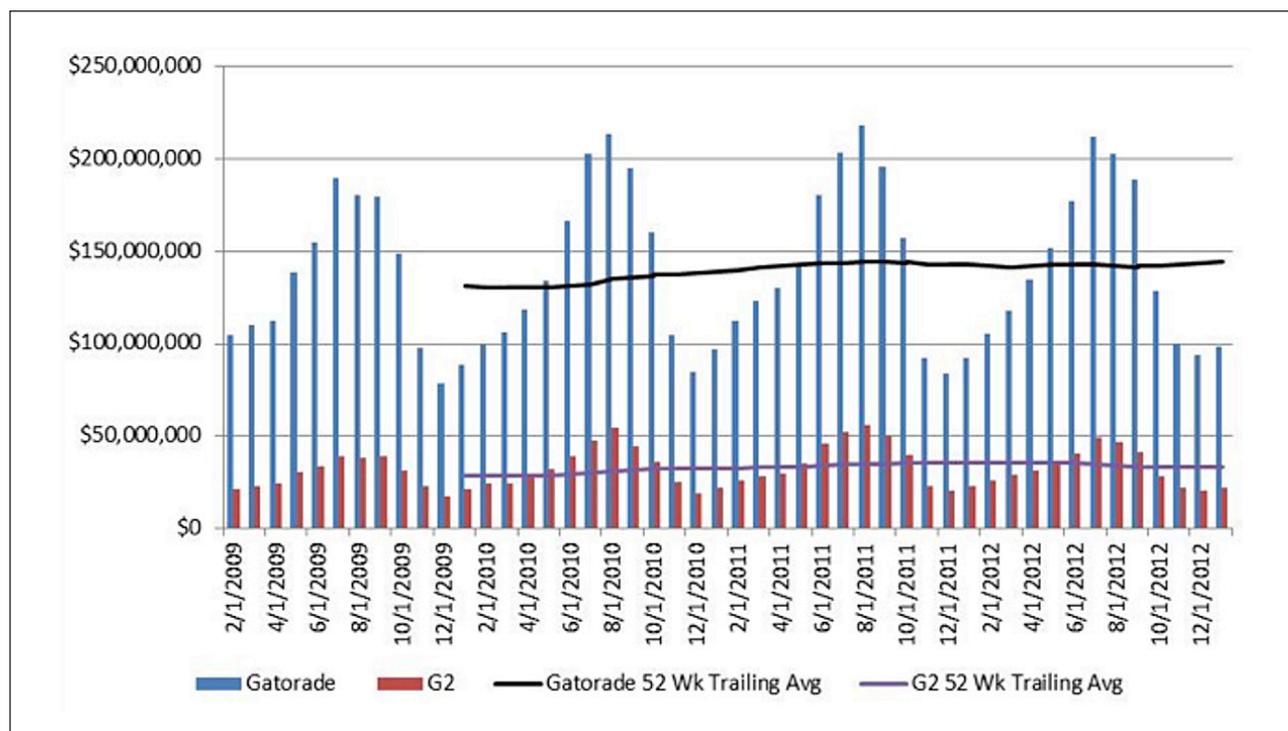
To understand the impact that changing any brand characteristic has on sales growth—we first have to understand what that brand’s underlying sales growth is—and compare sales-growth performance after the change to what we saw before the switch. Put simply: Is the change in sales growth significant, and is it enduring?

When looking at sales for both Gatorade and G2 (Figure 1 and 2), we rely on the 52-week trailing average to account for the powerful impact of the seasonality. We’ve aligned our sales years around one critical point, February 2010, which was the first month after the Gatorade and G2 sweetener switched from HFCS to sugar. This point enables us to see one full year pre-switch and three full

years post-switch. While the three brands in total show sales growth in each of the three subsequent periods, *how that growth is distributed* across the brands and across time varies quite a bit.

From a quick glance at Figure 2, Gatorade’s sales do increase in the year immediately after the sweetener switch as well as the two years after that. In fact, Gatorade has its highest sales growth in the first year after the switch, in which Gatorade’s growth rate is smaller than that of the other brands included, even though its growth dollars are the largest.

FIGURE 1: GATORADE & G2 SALES VOLUME, 2009–13



GATORADE'S SALES GROWTH WAS A LITTLE BETTER THAN AVERAGE FOR ALL GROCERY PRODUCTS, BUT MUCH LESS THAN THE SALES GROWTH FOR OUR COMPETING CATEGORY BRAND POWERADE (WHICH IS, OF COURSE, MUCH SMALLER THAN GATORADE).

How can we put Gatorade's sales-growth rate into proper context? In other words, is it *significant*? Its compound annual growth rate (CAGR) from Figure 3 is 3.2 percent, which is about one-quarter the growth rate that Powerade had over the same period; however, given that Gatorade is four times Powerade's size, can we expect Gatorade to show such a high *rate* of growth?

Gatorade's CAGR sales growth over the reference period was above the US Supermarkets CAGR sales growth of 2.4 percent for the same period.<sup>2</sup> Almost half of U.S. households consume Gatorade,<sup>3</sup> so it is possible that examining the rate of growth for all supermarket sales (remember that our data is confined to the supermarket channel) can give us a better reference point.

FIGURE 2: SPORTS-DRINK SALES BY BRAND, 2010–13

YEAR ENDING JANUARY	2010	2011	2012	2013
GATORADE	\$1.7 billion	\$1.8 billion	\$1.85 billion	\$1.87 billion
G2	\$368 million	\$425 million	\$463 million	\$428 million
POWERADE	\$363 million	\$437 million	\$478 million	\$528 million
TOTAL	\$2.4 billion	\$2.6 billion	\$2.8 billion	\$2.8 billion

FIGURE 3: SPORTS-DRINK SALES GROWTH BY BRAND, 2010–13

YEAR ENDING JANUARY	2010–2011	2011–2012	2012–2013	CAGR
GATORADE	5.9%	2.7%	1.1%	3.2%
G2	15.4%	8.9%	-7.4%	5.2%
POWERADE	20.3%	9.5%	10.4%	13.3%
TOTAL	9.5%	4.8%	1.3%	5.1%

GATORADE EXPANDED DISTRIBUTION BUT THIS INCREASED DISTRIBUTION ACCOUNTED FOR ONLY 2% OF THE INCREASE IN SALES.

# GATORADE SALES PERFORMANCE

## WHAT HAPPENED TO DISTRIBUTION?

As it turns out, increases in distribution reach (as indicated by Nielsen's % All Channel Volume [ACV] scores) explain some of Gatorade's increase in sales. In Figure 4, we can see that just after switching its sweetener, Gatorade expanded distribution. By comparing the trailing 52-week average ACV scores from the beginning and end of year one (47.0 and 47.9), we estimate the increased distribution to account for about 2 percent of the increase in sales (48.1/47.2).

As we continue to analyze the impact of the sweetener switch on Gatorade's sales, we want to control for the impact of changes in distribution. While expanding

distribution is certainly a good way to drive sales and is a reflection of the strength of an organization (in this case, PepsiCo), it requires a commitment of additional resources. Our analysis really involves how changes in ingredients impact *brand equity*, separate from organizational strength and capability.

The way to control for distribution is to divide Gatorade's sales by its % ACV. We then arrive at what Nielsen has termed sales per point of distribution (SPPD), which is a very useful indicator of the health of a brand. When asking the question "Did Gatorade's sales improve due to the switch in sweeteners?" we need to understand what is behind changes in SPPD, in order to provide an answer. Specifically, whereas Gatorade's sales growth in the first

year post-switch was just under 6 percent (5.95 percent), the more relevant growth rate was SPPD, which grew at a more modest 3.87 percent.

## WHAT IS DRIVING CHANGE IN SPPD IN YEAR ONE?

As we can see in Figure 5, we've reduced Gatorade's sales growth into its component parts and detailed how Gatorade's *Overall SPPD* actually improves almost 3.9 percent in the first year post-switch. Sales were up both from an increase in consumption of Gatorade (equivalent volume of Gatorade sold per point of distribution 2.73 percent) and from the fact that people paid more for the Gatorade they consumed (1.11 percent).

FIGURE 4: % ACV FOR GATORADE

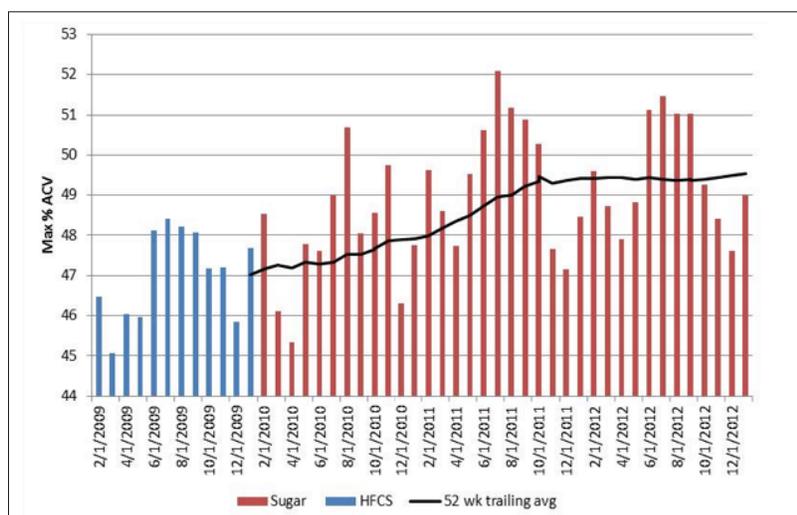


FIGURE 5: GATORADE SALES-GROWTH DRIVERS, 2010-11

	OVERALL
EQ VOL PPD	2.73%
PRICE/EQ	1.11%
SPPD	3.87%
ACV	2.00%
SALES	5.95%

GATORADE ACTUALLY CUT ITS REAL BASELINE PRICE BY ABOUT 33% IMMEDIATELY AFTER THE SWEETENER SWITCH, YET SAW NO REAL INCREASE IN BASELINE CONSUMPTION.

Brand equity, as discussed earlier, is the quality or qualities that enable a brand to outsell its competitors and create higher profits than its competitors. So the fact that, in the first year post-switch, Gatorade consumers drank more Gatorade overall and paid more for it looks encouraging.

## FINALLY, WHAT HAPPENED TO PROMOTION?

One of the interesting aspects of the data that Nielsen provides is its take on retail product promotion. Included in our data set were several “baseline” variables, such as Baseline \$ Sold and Baseline Equivalent Units. These baseline metrics are different from the other data we have used to this point (which are observed) because the baseline data are *interpreted*. They are, in fact, Nielsen’s estimate of what the actual sales were *absent of promotion*. Nielsen uses a sophisticated modeling approach that accounts not only for a brand’s promotional activities but also for those of its competitors. In so doing, Nielsen is providing its estimate of a brand’s underlying strength (brand equity). By comparing baseline data with overall sales data, we are able to solve for the impact of promotion, as we have done in Figure 6.

## UNDERSTANDING THE BASELINE PERFORMANCE

The performance of the Gatorade baseline is positive in the year after the change, but the increases do not seem unusual and are, in fact, rather small. What is particularly critical here is the fact that after making the switch in sweeteners, the “share of stomach” for the base (core brand consumers) increased by 0.5 percent. One helpful reference point here is that U.S. population growth for this period was about 0.8 percent annually; so if we assume that 50 percent of consumers are purchasing Gatorade, then we could expect population growth to provide about 0.4 percent of EQ Vol PPD growth over this period. Gatorade actually had 0.49 percent, so it would be difficult to point to this performance and suggest that it is in any way remarkable and may,

in fact, be on the lower end of what Gatorade might typically expect.

Turning to pricing, we see that Gatorade was able to get its consumers to accept an increase in price of 1.49 percent, which seems like a positive sign, until we compare it to the consumer price index for all food (CPIU-Food), which actually rose by 2.24 percent over the same period. In other words, controlling for inflation, Gatorade actually cut its real baseline price by about 33 percent immediately after the sweetener switch, yet saw no real increase in baseline consumption. Returning to principles of brand equity—a willingness to buy more and pay more—Gatorade’s sweetener switch hasn’t induced its core consumers (represented by Nielsen’s baseline) to either buy more than they otherwise would have or pay more for what they do buy, or both.

FIGURE 6: GATORADE SALES-GROWTH DRIVERS—EXPANDED YEAR ONE (2010–11)

	OVERALL	BASELINE	PROMOTION
EQ VOL PPD	2.73%	0.49%	9.53%
PRICE/EQ	1.11%	1.49%	2.09%
SPPD	3.87%	1.99%	11.82%
ACV	2.00%	2.00%	2.00%
SALES	5.95%	4.03%	14.06%

# GATORADE SALES PERFORMANCE

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FOLLOWING OUR PRINCIPLES OF BRAND EQUITY, DRIVING ADDITIONAL SALES THROUGH A DRAMATIC INCREASE IN PROMOTION **DOESN'T SEEM TO SUPPORT THE SWEETENER SWITCH AS A WAY TO STRENGTHEN THE GATORADE BRAND.**

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## UNDERSTANDING PROMOTIONAL PERFORMANCE

We can see that Gatorade made a very large expansion of promotion in year one after the switch, driven largely by volume sold under promotion. When PepsiCo promotes Gatorade, it does so at a significantly reduced price. During this period, Gatorade's promotional price averaged \$0.44 per equivalent unit, compared with \$0.61 per equivalent unit for baseline. The promotional price increased a little less than the rate of inflation (2.09 percent), but the big story is the increase of nearly 10 percent of the volume of product sold under promotion.

Following our principles of brand equity, driving additional sales through a dramatic increase in promotion doesn't seem to support the sweetener switch as a way to strengthen the Gatorade brand.

## KEY TAKEAWAYS

- Gatorade did have a sales increase in the first year after the sales switch and in the two years after. Its growth was less than competing category brand Powerade, however, which is much smaller than Gatorade.
- Gatorade expanded distribution after switching sweetener. This expansion accounted for 2 percent of the sales increase and has a lot to do with organizational strength and capability.
- Looking at brand equity (outselling competitors and creating higher profits than competitors), Gatorade's sweetener switch did not induce its core consumers to either buy more than they otherwise would have, or pay more for what they do buy, or both.
- When looking at brand equity, driving additional sales through a dramatic increase in promotion doesn't seem to support the sweetener switch as a way to strengthen the Gatorade brand.

# CLOSING THE LOOP WITH G2

Having focused on understanding the analytical story on Gatorade to this point, we can turn the same approach to G2 and see that while there are significant changes in *magnitude*, most of the same story points remain. The data in Figure 7 bear that out; in fact, the hypothesis is even more difficult to support, in light of what we learn about G2. Overall, the share of stomach increases post-switch, which on its face seems promising, and we see a slight increase in sales price.

The real story of the very large increase in sales of G2 is distribution. The ACV scores increase by nearly 12 percent. Looking within that story, we can see how promotion is behind all the positives. In fact, the base SPPD comes down, since the reduction in consumption of

G2 overtakes the price increase. This point is pretty damning to the hypothesis for G2: Base consumers reduced consumption in the face of a small (2 percent) price increase, right on the heels of the sweetener change. Taken in total, this doesn't look like a brand that is strong or one that becomes stronger over this two-year period.

## KEY TAKEAWAYS

- G2's share of core brand consumers increased post-switch, but this is because of distribution and promotion.
- Base consumers of G2 reduced consumption in the face of a small price increase, right on the heels of the sweetener change.

**BASE CONSUMERS REDUCED CONSUMPTION IN THE FACE OF A SMALL (2 PERCENT) PRICE INCREASE, RIGHT ON THE HEELS OF THE SWEETENER CHANGE. TAKEN IN TOTAL, THIS DOESN'T LOOK LIKE A BRAND THAT IS STRONG OR ONE THAT BECOMES STRONGER OVER THIS TWO-YEAR PERIOD.**

FIGURE 7: G2 SALES-GROWTH DRIVERS, 2010–11

	OVERALL	BASELINE	PROMOTION
EQ VOL PPD	2.18%	-3.15%	20.36%
PRICE/EQ	0.98%	2.02%	3.75%
SPPD	3.18%	-1.19%	24.87%
ACV	11.89%	11.89%	11.89%
SALES	15.44%	10.55%	39.72%

# CONCLUSION

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Three years after PepsiCo switched the sweetener of the Gatorade and G2 brands from HFCS to sucrose, we can see that PepsiCo's implicit prediction that "type of sweetener is a driver of sales in the sports-drink category" is not supported by our data analysis. In the first place, the sales growth that both Gatorade and G2 experienced in the year immediately after the switch trailed off in the following two years. Therefore, whatever impact the sweetener switch may have had in year one is not robust.

By digging deeper into the numbers, we can see that the majority of the sales gains that Gatorade and G2 did see, particularly in the first year post-switch, were accounted for by either expanded distribution or significant increases in promotional discounting. After looking exhaustively, it is difficult to find positive movements in sales drivers that can be credibly linked to the *brands* as opposed to the organization.

The fact that the type of sweetener didn't impact sales is consistent with a recent Mintel Brand study that found that fewer than one in 20 consumers is looking to reduce HFCS in their diet. There have been a number of food and beverage brands (Miracle Whip, Capri Sun and Hunt's Ketchup) that eventually reversed course after realizing that switching sweeteners did not pay off.

For the sports-drink category, there seems to be no link between sweetener type and sales. The type of sweetener used in Gatorade and G2 brands had no significant impact on share growth over the three years examined.

THE FACT THAT THE TYPE OF SWEETENER DIDN'T IMPACT SALES IS CONSISTENT WITH A RECENT MINTEL BRAND STUDY THAT FOUND THAT FEWER THAN ONE IN 20 CONSUMERS IS LOOKING TO REDUCE HFCS IN THEIR DIET.

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# METHODOLOGY

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*Case-study content was not part of any informal or proprietary discussions at PepsiCo or the Coca-Cola Company. The comments and conclusions in this case study reflect the views of the authors and do not necessarily express the views of PepsiCo or the Coca-Cola Company.*

This analysis uses data commissioned from Nielsen Company. The source was point-of-sale scanner data, which was aggregated into four-week periods and covers the Nielsen U.S. Retail Sales All Outlets Combined (including Wal-Mart). Data was collected covering just over four years (208 weeks) ending March 16, 2013, which constitutes the reference period. This period coincides with the Gatorade and G2 sweetener switch in February/March 2010, to reflect data from six months pre-switch and three years post-switch.

Four specific brands of sports drinks were selected to be reviewed individually and have detailed data for PepsiCo's two category leaders, Gatorade and G2, as well as the Coca-Cola Company's two brands, Powerade and Powerade Zero.



NIELSEN SCAN DATA IS A POWERFUL TOOL FOR LOOKING AT PRODUCT CATEGORY SALES TRENDS, AND THE SALES PERFORMANCE OF SPECIFIC BRANDS AND SKUS BY VALUE AND VOLUME.

## FOOTNOTES

<sup>1</sup> Natalie Zmuda, "Major Brands No Longer Sweet on High-Fructose Corn Syrup," *Advertising Age*, March 15, 2010, <http://adage.com/article/news/major-brands-longer-sweet-high-fructose-corn-syrup/142788/> (accessed September 1, 2013).

<sup>2</sup> Analysis of monthly sales data from the U.S. Bureau of Labor Statistics.

<sup>3</sup> Mintel Brand & Category Review: 43% of consumers had purchased Gatorade in the prior six months.

## **ABOUT THE AUTHORS**

**Martin Concannon**, managing director, Lafayette & Associates, has more than 20 years of experience advising senior executives of leading multinationals on business strategy, corporate finance, performance measurement and process improvement. He has served clients around the world in industries including consumer goods, manufacturing, chemicals and financial services.

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