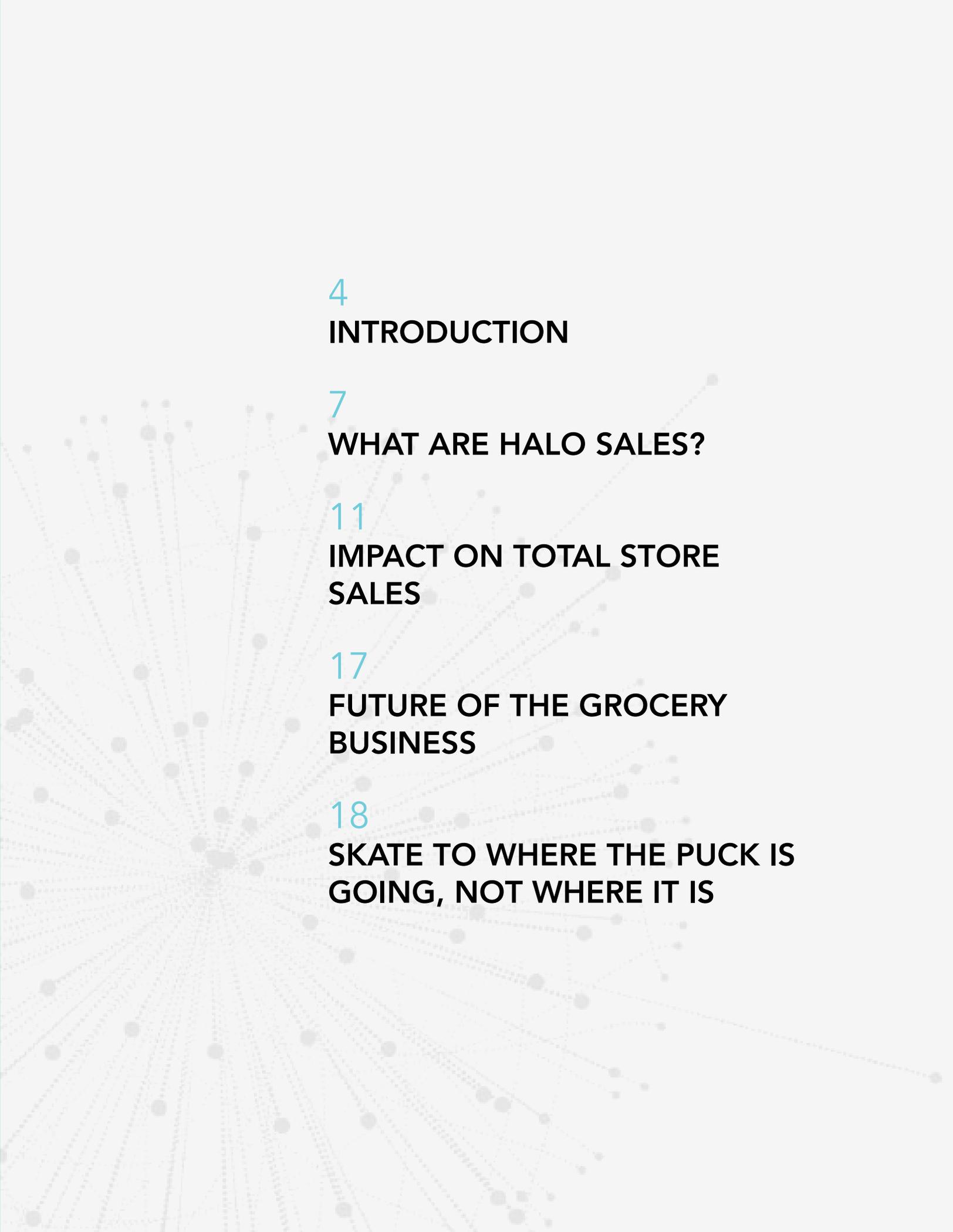


Halo Economics and the Impact on Grocery Decision Making.

Drive higher sales and profits with A.I.-powered promotions.

daisy
INTELLIGENCE



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INTRODUCTION

The \$800-billion grocery business is dramatically changing.

Established players such as Walmart, Amazon, and Aldi, and online retailers are putting more pressure on prices.

Not surprisingly, the need to establish a competitive edge has never been more important.

To drive business, grocery retailers have heavily depended on promotions to capture the spotlight.

Merchants are empowered to select promotional products and prices. Many of these choices are based on the following factors:

- Vendor contribution; slotting fees to feature their products.
- Historical analytics.
- Last year's performance; many merchants often duplicate decisions made the previous year.

If every merchant achieves their category growth goals, the business, in theory, will reach its corporate and financial goals. This model has held true for decades, but it is now being tested amid volatile industry conditions.

At the core is a paradigm shift around category management and the need to take a holistic approach rather than treating categories as economic silos to drive better corporate sales and profits.

A key part of category management optimization is managing the complex relationships between products, otherwise known as category interactions.

But here's the thing: while retailers recognize there are category interactions as a result of their decisions, it is difficult to quantify the overall business impact. It is even more problematic to decide which items drive larger category interactions given there are billions of potential combinations, which are impossible for humans to calculate.

The reality is that some promotional product decisions have a negative, neutral, or minimal impact on total sales due to unseen cross-category interactions such as cannibalization and forward buying/pantry loading that can cancel out the promotional lift.

In this eBook, we will explore cross-category optimization and how it will change how promotions are planned to drive higher

corporate sales and profits.

This is known as the "Halo Effect", which involves selecting the right promotional products to drive associated sales of high margin items (if the halo items are not also promoted). When executed using best practices, the halo effect can increase total sales by 5% and more than double net profits.



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WHAT ARE HALO SALES?

Consumers buy use cases, not products. They purchase items, for example, to make a spaghetti dinner: ground beef, pasta, cheese, tomatoes, and bread. All products have halo sales because they are part of use cases. Some items have multiple use cases, while items such as water or chocolate bars are not part of any use cases.

Every product has halo sales. It can vary from negative (taking into account forward buying) and almost nothing to more than 10:1 for items like produce, weekly low-cost products like meat, and consumer staples.

The halo is driven by the use case for a

product. Here are some examples based on data from our customers:

- Tomatoes have strong halo sales because they are part of a huge number of use cases and consumers tend to buy a variety of associated products such as cucumbers, salad dressing, and peppers that have high margins.
- Diapers, on the other hand, have low halo sales because there are few associated products and a small number of use cases. Many consumers buy diapers when they are on sale but they are unlikely to buy high margin associated products other than items such as wipes and lotion.

Every product belongs to a different number of use cases and products require other products to complete the use case. Diapers have few use cases, while produce has hundreds or thousands of use cases. The higher the number of use cases, the higher the associated sales.

There are billions of potential product combinations so it is beyond human capability for grocery retailers to create the ideal product mix that maximizes profits and sales.

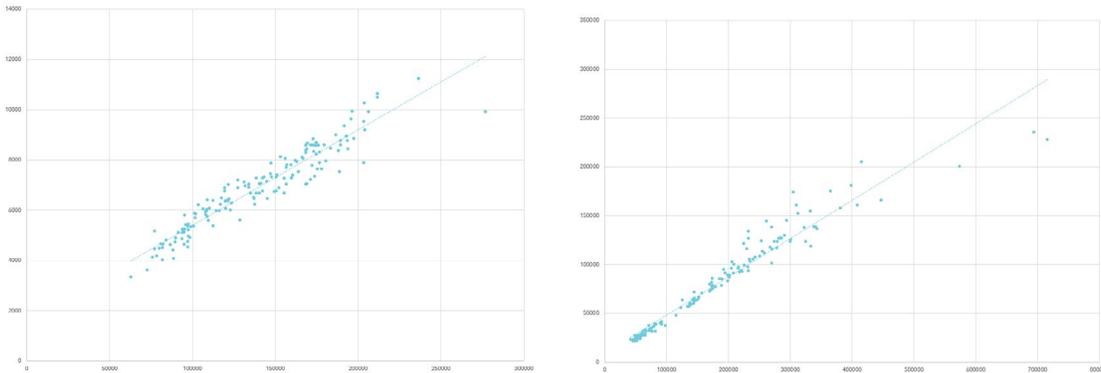
The key to success is making the invisible – the incremental halo effect – visible so grocery retailers can effectively manage it to drive better financial results.

An important fact: the relationship between a

product's sales and its halo is a constant ratio, whether the product is promoted or not. The use case for a pasta dinner does not change because ground beef is on sale.

In simple terms, it means that if you sell more hamburger buns each time that hamburger is sold unpromoted; then whenever hamburger is promoted, you will sell an incremental and proportional amount of hamburger buns. The halo relationship remains intact.

The graphs show several years of hazelnut cocoa sandwich spread and beer sales. Despite the price changes, the associated sales are perfectly proportional and constant. Many people shop with a use case. When they buy sandwich spread, for example, they also purchase things to put it on or to bake with. The same use case holds true for beer.



These charts represent five years of weekly data points. The vertical line represents sales of promoted items while the horizontal line represents halo sales.

The slope of the first chart (sandwich spread) is steeper than the slope of the second chart (beer). In the first chart, the halo (sales of associated products) for sandwich spread is 20:1. For beer, the halo is only 2:1.

When looking at the success of promotional activity, product sales can't be viewed in isolation.

Daisy has a client, for example, that regularly promoted wine.

In a given week, sales of these products increased by \$53,000, which indicated to the retailer that the promotion was a success. Associated sales, however, were only \$50,000, which meant that most customers simply bought the wines on sale. A 1:1 ratio of associated sales to product.

After the grocery retailer used Daisy's technology to analyze its transactions and identify products with high halo sales, we suggested it promote chocolate rather than alcohol in a valuable ad block. When promoted, chocolate sells the same amount as beer but it has a 1:16 halo ratio, which delivers \$800,000 in incremental sales.

The data shows that chocolate has many more use cases than wine. This example was around a holiday so chocolate also enjoyed a seasonal effect around baking, gifts, etc. Meanwhile, the use case for wine is simply buying wine because here no other products

required.

By promoting affinity products with high halos, grocery retailers can get an incremental lift in sales of associated products at a higher margin than the promoted product... if they don't also promote the halo products. This requires cross-category cooperation across hundreds of thousands of consumer use cases on a massive scale beyond what human merchants and category managers can effectively contemplate and deliver.

Timing and frequency are also key factors in product promotion and every product has its own cadence. Promoting a product too often means giving up margin while not promoting frequently enough leads to missed opportunities to drive sales.

But again, it is humanly impossible to understand the different buying patterns; baselines, promotional lifts, recovery periods and elasticity (promotional and price) for tens of thousands of products.

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IMPACT ON TOTAL STORE SALES

On average, 25% to 35% of a grocery retailer's products are typically promoted (otherwise known as the core range or core promotional products).

In working with clients around the world, Daisy has discovered that promoted products typically experience a 15% to 25% lift in sales over their baseline. The unpromoted halo items will also see a comparable 15% to 25% sales lift over their baseline because the ratio of the promoted item to its halo is constant. If they aren't promoted, the halo items, which have higher profit margins, can include products not only in the core range but within the whole store.

If grocery retailers can double incremental halo sales (after netting out cannibalization and forward buying) with promoted products by choosing an optimized product mix to promote, our data shows it will drive a 5% or greater impact on total store sales.

Another thing that makes the focus on halo sales so attractive is it emboldens grocery retailers to take a cross-category, total

store approach to promotional product mix optimization and pricing – impacting the net P&L.

Instead of managing categories in silos, grocery retailers can leverage halo sales to optimize their product mixes. It's about the economic value of the total basket rather than individual products.

This economic visibility represents a major evolution in how grocery retailers are operating and, as a result, it has a significant impact on their promotional activities.

By embracing a cross-category philosophy, a grocery retailer's promotional activities will evolve. And when it comes to measuring the impact, silos are being eliminated. It is now about the contribution to the overall business versus a specific category.

A cross-category approach provides grocery retailers with a powerful advantage and a new economic operating model. And, not surprisingly, there will be other financial impacts.

Some grocery clients, for example, have moved to new compensation models to more closely align with the contribution to overall corporate sales and profits.

Instead of rewarding managers and merchandisers for only the success of their individual categories, compensation is based on the category and merchandising team's contribution to the overall business.

When everyone's interests are aligned, category managers and merchants work differently. There is more collaboration and strategic thinking about selecting high halo products that deliver excellent financial results.

At the same time, category managers and merchants also understand there are products that should not be promoted as frequently because they don't drive associated products with higher margins.

A holistic economic model rather than one focused on particular categories or products makes the new economic model even more interesting and disruptive.

With Amazon and other new entrants putting pressure on pricing, now is the time to

embrace A.I. and data intelligence to capture more halo-driven margins.

The invisible has become visible. Given the financial impact of halo sales, leading grocery retailers are adopting a new strategy to promotional product optimization and pricing.

Armed with semi-annual or annual sub-category promotion optimization plans, grocery retailers are actively steering CPG manufacturers to finance promotional products with higher halo sales. (Note: CPG companies can still use the traditional "pay to play" model to acquire advertising space for products with low halo sales because there are consumers for all products.)

This lets the voice of customer play a more influential role in the promotional plan rather than simply relying on last year's plan. Leveraging transaction log data is the single most customer-centric decision that retailers are making and, as important, it is dispelling the old adage "that's the way we've always done it". This mantra will not propel your business forward in the new economic reality.

**Optimizing profits, sales,
and shareholder value
allows first movers to
pressure competitors
as opposed to having
to react and play catch
up. Taking a holistic
approach to product
promotion and pricing
makes the new economic
model more lucrative
and disruptive.**

THE HALO AND THE NET PROMOTIONAL EFFECT

The halo reflects the sales impact generated by a promoted product. The bigger the halo, the higher sales of higher margin associated products. The halo is mathematically summarized by Daisy's Net Promotional Effect, or NPE.

The two charts below represent a retailer's quarterly sales for Q1 2012 and Q1 2014. Over two years, we nearly doubled the halo and NPE. In that period, we improved their NPE to \$671.3-million from \$382.2-million.

By focusing on selecting products with a higher halo, the impact was nearly \$300-million in NPE, which goes straight to the bottom line. The \$300-million represents 5% of total sales.



Q1 2012.



Q1 2014.





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FUTURE OF THE GROCERY BUSINESS

So what does this evolution mean for the grocery business?

With plus and minus category interactions factored in, category measurement and financial success become defined by total store contribution, and decisions are made in the best interests of the company, not the category or product.

Another important consideration around the halo is pricing. Vendors who price their products without considering the final promotional product mix are not accounting for the category interaction effects. Instead, they are treating their products as standalone entities. Daisy prices the product mix as a separate step because “the mix matters”. In other words, it’s all about driving halo sales.

At the end of the day, a cross-category approach that embraces product and pricing optimization is a more successful

way to do business. But this doesn’t mean that you should never promote some lower performing categories.

Advertising and marketing still need to educate the consumer about the depth and breadth of a retailer’s assortment. On the weeks that a retailer decides to educate consumers, financial performance can be maintained by focusing on exceptionally high performing categories to balance the educational/marketing ads that may be lower performing.

Cross-category merchandising provides retailers with an opportunity to optimize financial results while continuing to educate customers. And, of course, higher sales driven by promotional optimization will be good for the company, category managers, and merchandisers.

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SKATE TO WHERE THE PUCK IS GOING, NOT WHERE IT IS

The grocery industry's economics are changing... and changing fast.

Evidence shows that grocery retailers who understand and embrace the impact of halo sales are seeing significantly higher sales and profits; we're talking a 5% increase in topline revenue and, in some cases, more than 100% higher profits!

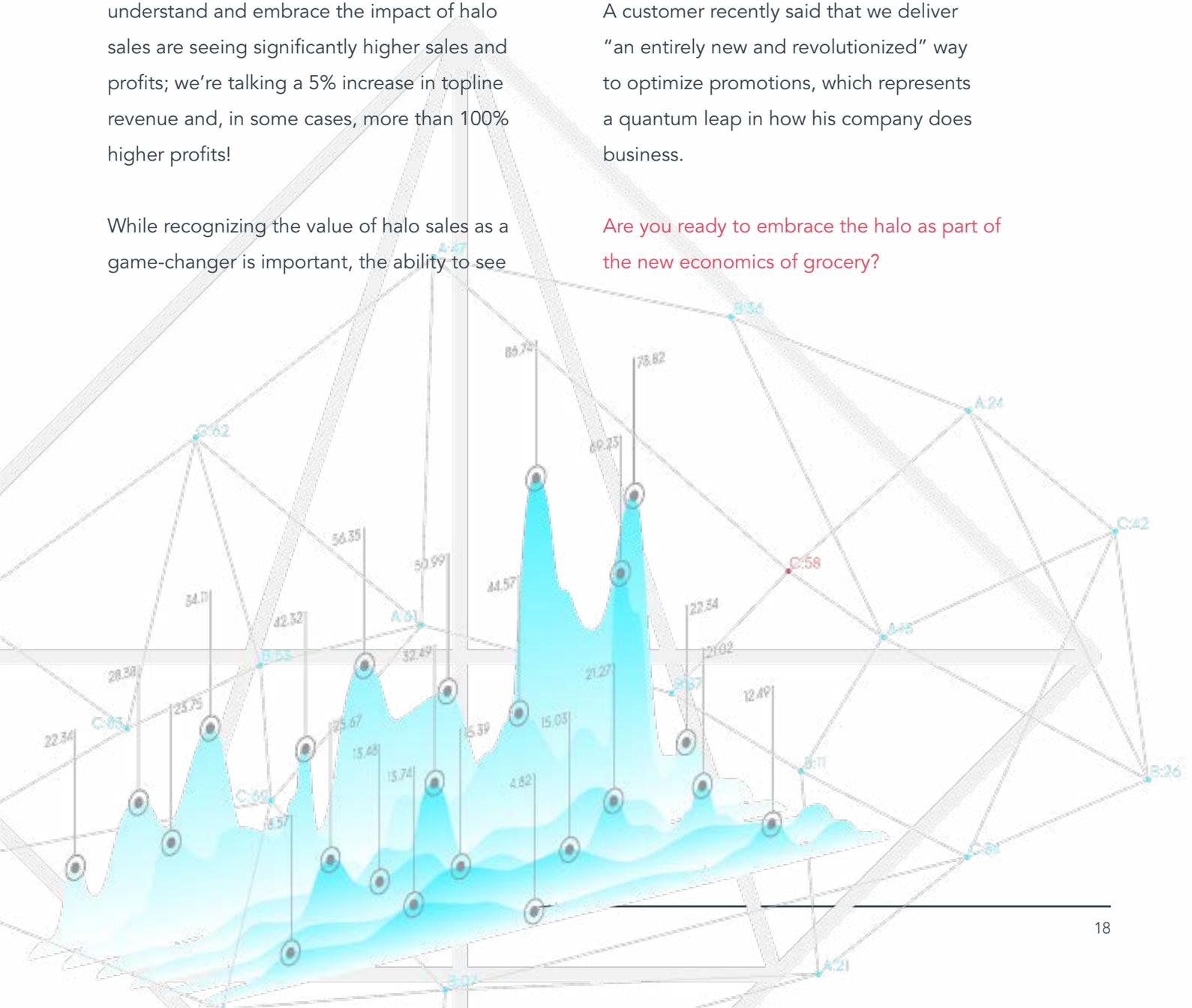
While recognizing the value of halo sales as a game-changer is important, the ability to see

and optimize it is critical.

Daisy's technology makes the invisible visible.

A customer recently said that we deliver "an entirely new and revolutionized" way to optimize promotions, which represents a quantum leap in how his company does business.

Are you ready to embrace the halo as part of the new economics of grocery?



About Daisy Intelligence.

Daisy Intelligence delivers A.I.-powered decisions that help grocery retailers and insurance companies make higher profits every year. And we can prove it.

Combining math and science, we analyze 100% of your data, tackling the time-consuming and complex work to extract valuable intelligence that accelerates the growth of your business.

For grocery retailers, Daisy can drive 100% higher profits and 5% higher total sales by optimizing prices, product selection, and demand forecasting.

We can help insurance companies become significantly more profitable by quickly and accurately identifying fraudulent activity, helping them reduce claims payments by millions of dollars.

Sees what others don't.



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