Optimizing Promo Selection with AI to Increase Profit

Discover how AI can enable grocery retailers to plan promotions that consider seasonality, unique pricing, and product data to engage customers, increase sales, and grow profits.

COMOSOFT
MULTICHANNEL SOLUTIONS

DecaSIM

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ADD INTELLIGENCE & HARVEST PROFIT

Recent advances in artificial intelligence (AI) brought to market by Chat-GPT and GPT-3 is a clear signal that AI is a viable technology for retail marketing departments. Integrated with Comosoft LAGO, the AI-based DecaSIM promotion ranking tool adds an additional layer of intelligence to the existing planning process, adding measurably to the impact of the weekly ad and on store profitability.

Implementing DecaSIM's AI solution is easy. Our technology integrates seamlessly with existing processes and infrastructure. To demonstrate this, a leading regional grocer implemented a live test and generated positive returns from week one. By optimizing which promos to feature in its advertising, **their customers were more engaged with the offers, which increased weekly sales and grew profits (EBITDA) by 8%.**

CUSTOMIZE PROMOS BASED ON UNDISCOVERED SHOPPING PATTERNS

Retail price promotions serve as a catalyst for customer engagement, loyalty rewards, and shaping purchasing behaviors. However, as promotional strategies become more intricate, the challenge lies in leveraging these discounts to drive incremental shopping trips.

Customer behavior is complex and in the realm of promotions there are many potential unintended consequences. For example, different promotions often cannibalize one another by appealing to the same audience. The net effect can be a zero increase in customer engagement. In today's inflationary environment, this can result in a missed opportunity to increase shopping trips from the growing audience of value-conscious shoppers.

Comosoft LAGO and DecaSIM work together leveraging DecaSIM's advanced retail AI to create a predictive model that simulates the response of your shoppers to different promotional strategies. Through this innovative AI technology, we can discern the most potent promotions for drawing in customers. Our integrated solution adeptly pinpoints the promotions that resonate most with your price-conscious shoppers, fostering heightened engagement, increased sales, and amplified profits for our valued retail partners.

PUTTING THEORY INTO PRACTICE

A 300+ store regional grocer selected a region and, using the Comosoft LAGO system, created a specific version of its weekly ad circular to optimize during a ten-week test period. Each upcoming week's promotional plan was run through the DecaSIM optimizer during the test. The results of this analysis were then used to select which items to feature on each page of the circular.

The test region consisted of 104 stores. An additional control region was created with 65 stores. To evaluate the intervention, the percentage of shoppers who engaged with the promos featured in the weekly circular was measured in the test region stores, and these results were compared to those from the control region stores. Total store sales in the test and control region stores were monitored carefully for changes.

RESULTS SHOW INCREASE PERFORMANCE ON ALL MEASURES

Conducting these tests, the retailer established a set of measures to evaluate the performance of the recommendations, increased engagement with promos, impact on total store sales, and store profits. **On every metric, the results showed a positive increase versus the Control.**

AD ENGAGEMENT INCREASES BY TWO PERCENTAGE POINTS

Ad engagement was compared between test and control stores through the intervention weeks, with DecaSIM optimizing the featured promos. During non-intervention weeks, promos were optimized by the retailer's merchandising team.

During the intervention weeks when DecaSIM optimized the weekly circular promos, the difference between the percentage of shoppers purchasing a promo item in the test stores versus the control store was **+3.79 percent**. The difference between the test and control stores was **+2.1 percent** during the non-intervention weeks. DecaSIM **increased engagement by +1.69 percent** on average.

The likelihood that the positive increase in test and control store results could be achieved in promotion weeks without the DecaSIM intervention is only 0.46%. Results suggest that by using the AI model, DecaSIM can select promotions to increase overall reach rather than focus on the same customer groups. The DecaSIM Model generates a weekly circular appealing to a broader group of customers, ultimately helping the retailers get more out of their ad spend.
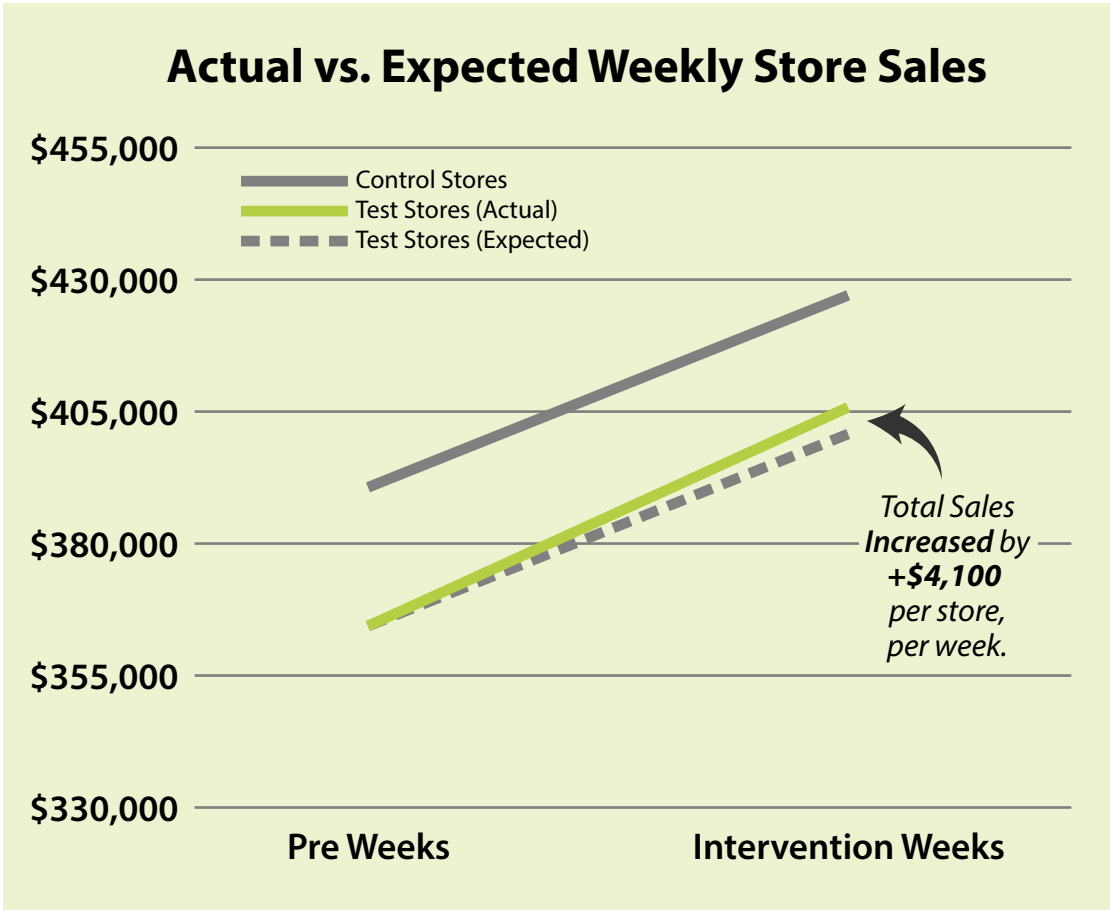
Ad Engagement (Test Minus Control)

4%	
3%	
2%	
1%	
0%	
Pre Weeks	**Intervention Weeks**
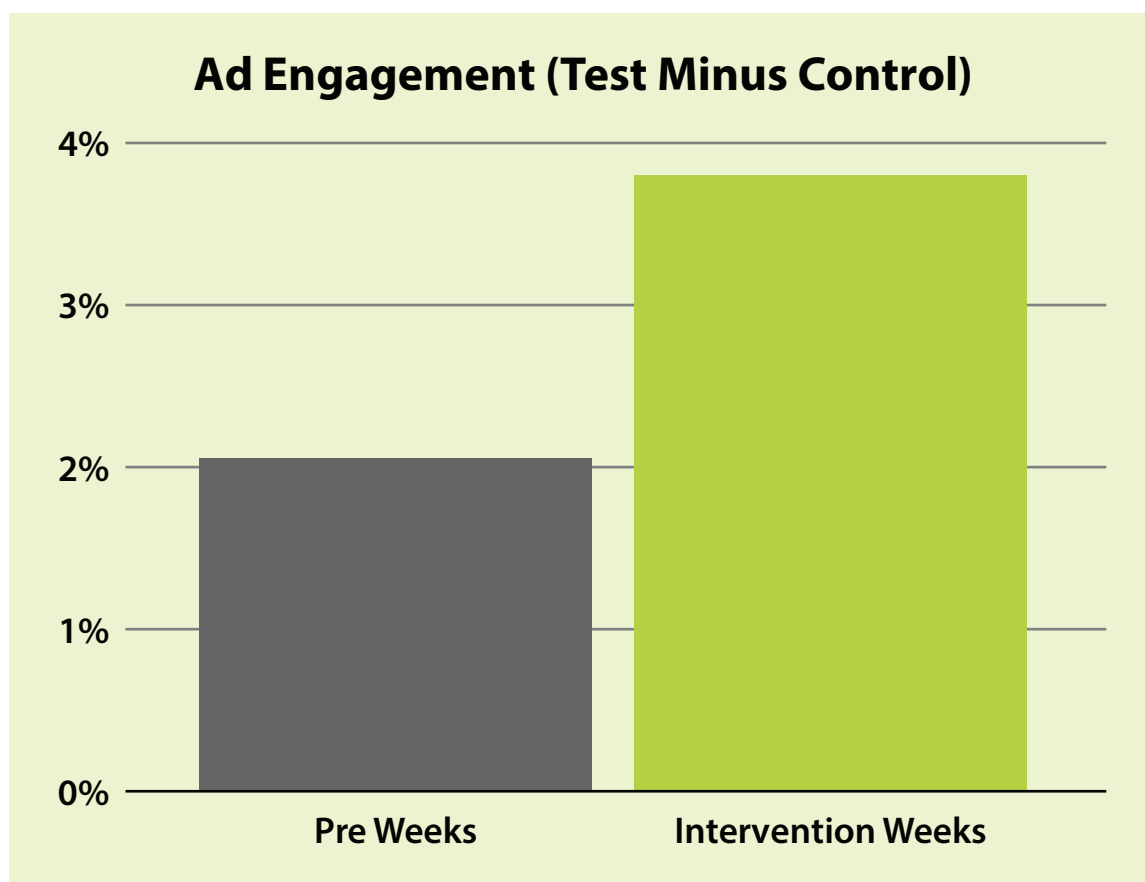
STORE SALES INCREASE BY $4,100 PER WEEK

Alongside engagement with items on promotion featured in the Weekly Circular, changes to in-store sales were also examined. In the best-case scenario, this is a challenging analysis, particularly in the post-Covid era. To extract the sales impact, year-on-year changes in test store sales were compared to control store sales at an individual store level. This calculation identifies the expected changes in Test Store sales without DecaSIM intervention. As a further control, the control store profile was matched with the test store profile. See the next page for a detailed method explanation.

The graph below is an analysis that shows both test and control stores increasing average store sales year-on-year. In the control stores, sales rose from $391,000 to $428,000 per week. In comparison, the test stores sales rose from $364,000 to $405,000, **against an expected value of $401,000**, based on what was seen in the control stores.

The difference in average weekly store sales attributed to DecaSIM intervention was **+$4,100 per store per week**. Across the Test Region for the test period, it's estimated that the solution added $4.2 million in incremental sales and increased EBITDA by approximately 8%.

Actual vs. Expected Weekly Store Sales

Legend:
- Control Stores
- Test Stores (Actual)
- Test Stores (Expected)

Y-axis: $455,000 / $430,000 / $405,000 / $380,000 / $355,000 / $330,000

X-axis: Pre Weeks — Intervention Weeks

Total Sales Increased by +$4,100 per store, per week.

CONCLUSIONS

Optimizing featured promotions based on item/customer level analytics creates promotions that appeal to a broader customer base. Increasing the relevance of featured promotions also increases total store sales.

In addition to these direct business benefits, promotion optimization has other softer benefits. For many retailers, the Weekly Circular is the only regular customer pricing communication. While many shoppers don't recall prices on the shelf, those who read the Weekly Circular are acutely aware and plan their weekly shopping trips based on what they read in their local retailer's ad.

SALES CALCULATION DETAIL METHOD DESCRIPTION

The retailer had further classified the Test Stores and Control Stores into different sub-types. These sub-types were defined based on a function of sales mix and sales peaks. Since the Test and Control Stores contained different proportions of these sub-types, they weighted the Control Stores to be the same profile as the Test store population, having calculated performance differences among each store sub-type in the two regions.

The following approach was used to calculate the increases in Test Store Sales over and above what was expected. For each sub-type, the normalized sales increases in the 2022 test period were calculated using the average store sales in 2021 and the standard deviation of 2021 store sales—this calculation was for the Test stores and Control stores.

The normalized increases in the Control Stores were subtracted from the normalized increases in the Test Stores. Using 2021 Test Store data (avg and std dev.), these results were denormalized to yield the incremental $ change in sales over and above what was expected in the control stores.

ABOUT COMOSOFT

Founded in 1994, Comosoft has decades of partnering with major retailers and manufacturers around the world, helping them thrive in the complex, data-driven world of retail marketing and promotion. Comosoft is an established, global pioneer in multichannel media and PIM systems for the consumer goods, retail, catalog, e-commerce, and manufacturing sectors. Our goal is to provide data and media production platforms to meet the ever-changing channel requirements of modern, global business, marketing, and digitally enabled commerce. Comosoft's LAGO software tools reflect best practices and proven workflows for optimizing data-intensive content.

ABOUT DECASIM

DecaSIM is at the forefront of retail AI solutions, enabling retailers to optimize marketing strategies, tailor customer experiences, and drive incremental sales and profit. Through advanced artificial intelligence algorithms, DecaSIM empowers retailers to make measurable, informed decisions that Increase revenue expansion and drive profitability.

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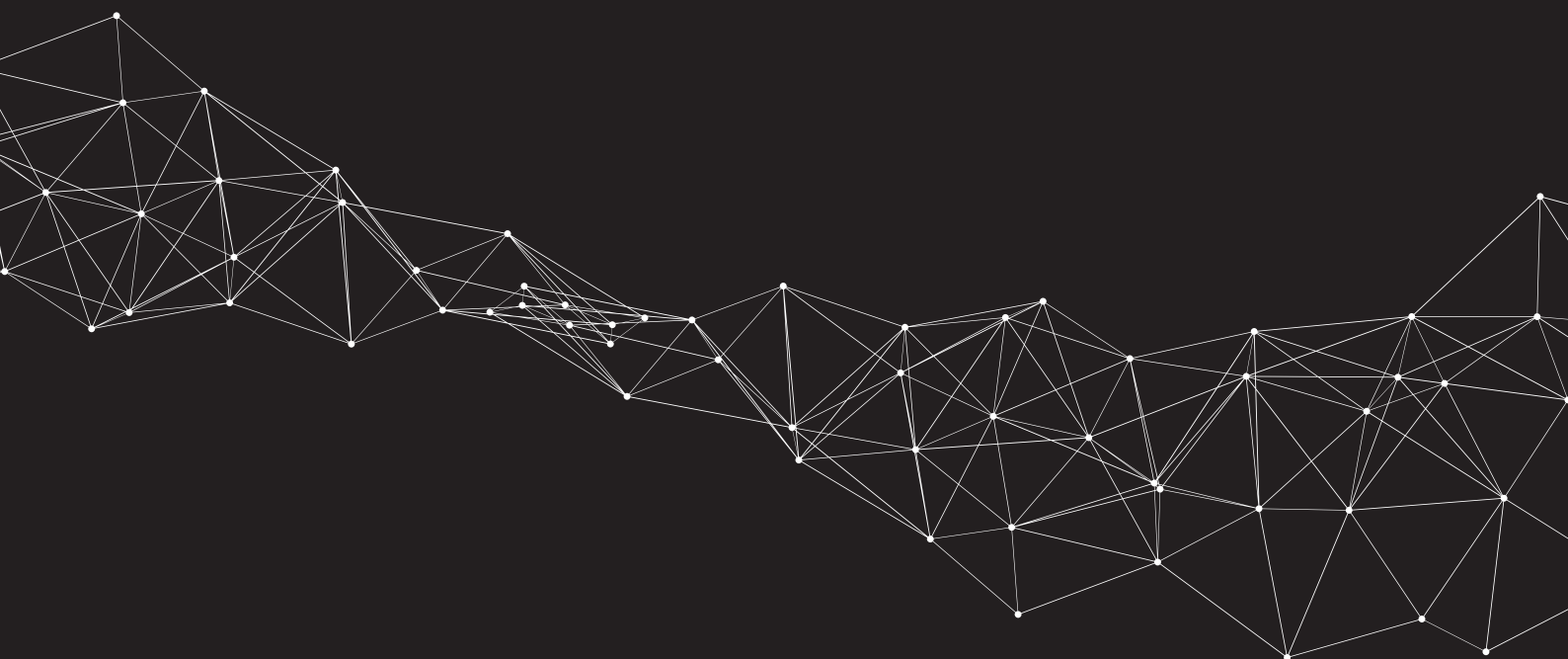info@comosoft.com
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