

PART 2:

The Power And Pitfalls Of Price Optimization

What's the perfect price?

Price optimization is a process that uses data science algorithms and machine learning to determine your optimal pricing. Each type of price (list, selling, and net) has different considerations and varying routes to the end goal of an optimal price. Ultimately, it is a combination of talent and data science tools that will help you achieve your profitability goals. Does your organization have the right stuff?



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Diving deeper

In Part 1 of this eBook series, we defined Price Optimization (PO) as: the process of applying data science algorithms and machine learning to determine the optimal price to charge a customer. We also discussed how PO is a *process* rather than simply the application of a PO algorithm. This eBook provides a further look at each pricing type and the process of finding the optimal price for each customer every time.



List price: More art than science

There are constraints that confine the possible list price you should set:

Competitor pricing

Internal competing product lines, such as economy and luxury brands, as well as external competitive products from other companies.

Derivative effects

Subsequent selling and net prices may be based on the list price; other products' list prices may be based on this product's list price.

Minimum margins

You've got to start your list price high enough to afford all the discounts, reimbursements, costs of goods, overhead, etc.

Thus, you have to simulate and experiment with proposed list prices and back into a list price—rather than magically applying a statistical algorithm to spit out an ideal answer.

When launching a new product and setting its list price for the first time, there is more art than science involved, for sure. However, when deciding to adjust an existing list price, there can be plenty of data that allows you to see the effect of list price changes on margins and subsequent prices. How much you decide to adjust a list price is based on the analyses of the effects of the list price change on subsequent prices and your strategic goals.

Thinking through these key questions will help:

- Are you trying to boost profitability?
- Are you trying to capture more market share?
- Are you constrained by how much manufacturing or inventory capacity you can allocate to this product line?

Selling price: Rinse and repeat

Traditional price optimization algorithms use demand models and price elasticity to achieve a desired effect. PO can be constrained by various factors such as minimum margins, plant capacity, and inventory availability. Price optimization always requires at least one goal, although several ranked goals are more realistic.

Remember that an optimal price always has context: this is the ideal price for a customer at a point in time to achieve a specific goal or goals. The optimal price to sell 10,000 units is not the same as the optimal price to maintain 10% margins. The ideal price for Customer A is not necessarily the ideal price for Customer B. And the ideal price for Customer A in April might not be the ideal price in October. So, unlike a universal list price, selling prices are personal and time sensitive. Get ready to analyze a lot of customer behaviors, then rinse and repeat—repeatedly!



Net price: Do discounts and rebates matter?

If you don't have to worry about rebates or lavish loyalty program benefits, then the net price is typically the selling price—or a slight, but consistent, offset from it. Hurray for you in this case, but as sales and promotional programs increase in sophistication for both consumers and channel partners, this population of lucky souls continues to shrink. However, for many of us, please keep reading.



The kind of data you feed a price optimization algorithm directly affects the output from it. The PO algorithm will determine an ideal price based on the prices in historical transactions and the customer reactions to those prices. If the data has the selling (invoice) price, then the PO algorithm determines an ideal sell (invoice) price. If the data has the net price paid (considering post-sale rebates and reimbursements), then the PO algorithm determines an ideal net price. Using the PO's ideal net price output as your new invoice price would be a horrible mistake. In this case, you will set a bottom selling price and then give rebates in addition!

One thing your PO algorithm cannot tell you: did the customer consider the post-sale rebates when deciding to purchase? In other words, do discounts matter more than rebates and do rebates matter at all? If the customer considered rebates, then the net price drove the decision, but if the customer did not, then invoice price drove the decision. Why does this matter? If the rebate isn't driving behavior, then adjusting the rebate won't change anything but your margin!

To determine which is driving customer behavior, you would need some A/B testing on volumes with discounts vs rebates. This worthwhile exercise could show where your customers have a perception problem with your offer. Then you can re-evaluate the mix of discounts vs. rebates to shrink the perception problem—or find a better way to communicate with your customers about the value of your current offer.

The formula for profitability

We have discussed the difference between the process of optimizing various prices and the mere application of a price optimization algorithm. Algorithms are useful, but you must be careful about how you apply them and interpret their output. You might also realize now that you need to define your business process for optimizing prices with a clear methodology that maximizes automation while recognizing its limitations.

You need appropriate skills and tools to support such a methodology. The better tools you employ to automate this process, the less talent (in both the number of staff and the depth of skills) you will need to perform the process and achieve the desired impact on profitability.



How technology can make a difference

Manufacturers supported by software that manages the full lifecycle of their pricing optimization programs will have a strategic advantage in the marketplace. By capturing detailed supply chain performance data in a structured repository with machine learning capabilities, manufacturers (and their supply chain partners) can get instantaneous answers, rather than enduring hours of searching for data, doubting its integrity and manually studying its secrets. In the end, data leads to insights, and insights lead to profits.

How Vistex adds value in Manufacturing

Industrial manufacturers face increasing costs, price pressures, margin erosion from discounting and promotions, automation costs and complexities, reduced revenue from loss of market exclusivity and outright intellectual property theft. Vistex helps manufacturers better respond to supply chain challenges through revenue growth programs including pricing, sales rebates, contracts, co-op and MDFs, rewards, commissions, bids and quotes, claims, loyalty programs and royalties. Manufacturers benefit from a clearer picture of margins, returns on promotional investments, growth opportunities, and improved revenue management for sustained business growth.

About the author | Matthew Hays, Director of Product Management at Vistex

Matthew Hays has experience in many roles over 25 years, including developer, team lead, business and technical consultant, project manager, and product/solution/portfolio manager. His comfort level with architects, programmers, business analysts, and executives—both customers and vendors—makes him an interesting presenter at SAP TechEd, ASUG, and various industry trade conferences for revenue management topics.

About Vistex®

Vistex solutions help businesses take control of their mission-critical processes. With a multitude of programs covering pricing, trade, royalties and incentives, it can be complicated to see where all the money is flowing, let alone how much difference it makes to the topline and the bottomline. With Vistex, business stakeholders can see the numbers, see what really works, and see what to do next—so they can make sure every dollar spent or earned is really driving growth, and not just additional costs. The world's leading enterprises across a spectrum of industries rely on Vistex every day to propel their businesses.

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