



Bank Systems & Technology

May 7, 2007

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Compressed Margins, Advanced Technology, Mature Data Stores Lead Banks to Price Optimization: Although price optimization technology is gaining in popularity, few banks are willing to talk about their strategies.

Here is a buzz in the financial services industry about price optimization. Before their competitors beat them to the punch, banks surreptitiously are seeking counsel with vendors and analysts to explore the strategy.

First developed in the United States for the airline industry more than three decades ago, price optimization is just now beginning to be used in financial services. Price optimization -- a term often used interchangeably with profit-based pricing -- is the method of finding the right price for a particular customer by channel, segment, geography, market or product. The key ingredient in price optimization that is absent in other pricing strategies is customer elasticity, the extent to which demand falls as price rises.

According to experts, the current state of the economy and of technological advancement has made now the perfect time for price optimization, especially in the lending arena. But a strange thing is happening -- almost no one is willing to publicly acknowledge that this is what they are doing.

"The less that our competition knows, the better," says the director of product strategy and business development for personal loans at a major North American bank who spoke to BS&T on the condition of anonymity. "The personal loan industry and home-equity-lending industry is undifferentiated and offers a commodity product," he explains. "As much as you can hide or not divulge to the competition is advantageous because everything else is so transparent."

"I've had people get up and leave the room" when the topic of price optimization was raised, says Richard J. De Lotto, principal research analyst for Stamford, Conn.-based Gartner, who has completed extensive research on price optimization in financial services. "People are terrified," he says, explaining that banks fear that price-optimization software could be spun as price-gouging software. Others fear that they only have 12 months to 15 months of a head start on any competitor, since they can only hide results until their yearly reports are issued, De Lotto adds.

Why Price Optimization Is Popular Now

One reason banks are keeping their price optimization strategies so close to the vest is that it's a nascent idea in financial services. While other industries, particularly airline and retail, have been utilizing price optimization since the 1970s, the financial services industry has only turned to price optimization within the past 18 months. In 2005, no one was talking about price optimization; but about a year ago, interest started building, says Bobbie Britting, senior analyst in consumer lending for TowerGroup (Needham, Mass.).

In February, representatives from Bank of America (Charlotte, N.C.; \$1.2 trillion in assets), BB&T Corp. (Winston Salem, N.C.; \$110 billion in assets), SunTrust Bank (Atlanta; \$182 billion in assets), Citigroup (New York; \$1.88 trillion in assets) and Wachovia (Charlotte; \$707 billion in

assets) spoke at the [Pricing Optimization for Financial Services Conference](#), sponsored by Finance IQ, in Berkeley, Calif. But Dan Malouff, SVP of pricing strategy for Bank of America, who spoke about the future of pricing for financial services at the conference, was the only participant who agreed to go on record with BS&T. "Price optimization is absolutely necessary to deal with the margin compression that we have experienced," he says.

Malouff says that at the February conference, much of the talk about price optimization centered around relationship-based pricing. But price optimization is based on risk and the customer's propensity to use the product, not the entire customer relationship; relationship-based pricing is the ability to dynamically price new products and transactions based on the current relationship with the customer, he asserts. It's important to focus on a customer's price elasticity and how you can optimize the product first, and then you can turn to the value of the customer, Malouff adds.

Banks are looking for ways to increase profitability and organic growth, says Robert L. Phillips, founder, chief technology officer and VP of product management for Nomis Solutions, a profit-based-pricing-solutions provider based in San Bruno, Calif. Right now, Phillips adds, there aren't many ways to achieve this other than price optimization.

In the early part of the decade, explains TowerGroup's Britting, [interest rates](#) were so low that lenders had a more than sufficient amount of application volume. But in 2004, when the rates started to tick up again, she continues, lenders started to question how they were going to regain that volume. "People had to start thinking of new ways to gain applications," Britting says.

Prior to implementing price optimization, says the product strategy executive who requested anonymity, his bank was using static pricing models. "We weren't focused on reducing rates for low-risk clients," he comments. "We weren't thinking about how we could bring costs down to increase volume." But compressed margins, he adds, forced the bank to start taking a closer look at its pricing strategies.

"Customers shop around," notes Forrester (Cambridge, Mass.) senior analyst [Mary Pilecki](#). "They are more sophisticated and demanding."

The availability of abundant CRM data coupled with decreasing mortgage volume added to the interest in price optimization. As data warehouses matured, banks began to have foundations for the analytics and modeling that are the backbone of price optimization, according to TowerGroup's Britting. "People are more comfortable using data to make automated decisions," she says.

Firms also are growing more comfortable with the technology behind price optimization. There are a few different technologies that go into price optimization, including CRM software and dashboards. But the main technology that supports price optimization is advanced analytics software.

If they haven't already, Gartner's De Lotto says, banks should start exploring price optimization now, beginning with testing to see if they have the technical capabilities to perform price optimization. But, he suggests, banks should start small and start smart.

Most vendors offer fairly inexpensive pilot testing, De Lotto relates. "Most claim that their pilot tests turn a profit," he says. "Take them up on it."

Price Optimization Starts With Good Data

The biggest part of the technology equation for price optimization, according to TowerGroup's Britting, is making sure your bank has the data off of which to build models. In more-traditional pricing models, customers who appeared to share similar characteristics would have been offered the same price; with price optimization, however, more data is considered, allowing banks to find variances in the segments that make their price elasticity different, says Britting. She points to an example in her report, "Profit-Based Pricing: Time to Stop Leaving Money on the Table," for explanation:

"Similar customers (same credit score range, LTV, debt-to-income ratio, and loan amount range) may all be offered a loan at 7.25 percent. Customers in segment A will take out the loan at 7.25 percent, those in segment B will refuse this loan because the rate is too high, and customers in segment C will take the loan but would have been willing to pay 7.85 percent. Using price optimization, the lender could improve profit margins on all customers in segment C by asking a higher rate. It could enhance volume by offering customers in segment B a lower rate."

"Price optimization is taking the waste out of pricing," Bank of America's Malouff contends. "I see price optimization as cost control," he notes, adding, "The customer will tell you what they want based on their decision to do or not do business with you."

"High-FICO-score customers are highly sensitive to changes in price," adds Cindy von Hollen, banking industry principal with SAP (Walldorf, Germany), which became a leading vendor in the price-optimization space following its acquisition of Khimetrics in early 2006. People with lower credit scores are more sensitive to product availability, she asserts.

According to von Hollen, the SAP Price Optimization product takes into account many variables that affect customers' decision-making, including competitive effects, seasonal effects, interest rates, product switching, unique brand and actual customer behavior. "[SAP's demand model] isolates factors and takes them into consideration to find true customer sensitivity," she says.

In addition to demand modeling, SAP's Price Optimization offering also includes a data setup service, an optimization engine and a workbench user interface. In case studies, SAP has claimed to increase profits by 7 to 9 basis points. In one case, it says it increased home equity loan volume by 7.4 percent, leading to a \$2.7 billion portfolio increase.

Nomis Solutions' approach to price optimization is unique in that it is the only vendor in the financial services space to utilize lost-quote data, according to the firm's Phillips. He says he developed the formula for lost-quote data for the business-to-business market, where bids are offered and selected or rejected daily. "Lost-quote data does not have an equivalent in retail," Phillips says. "It gives financial institutions a closer look at how customers respond to pricing," he says. Nomis' clients include BB&T, Barclay's and Halifax Bank of Scotland.

Other vendors in the space include Acorn Systems (Houston), Earnix (Ramat Gan, Israel), Suntec Business Solutions (Trivandrum, India), Zafin Labs (London), Metavante (Milwaukee), Oracle (Redwood Shores, Calif.), SAS (Cary, N.C.), PROS (Houston) and Response Analytics (Scottsdale, Ariz.). But if you can't find what you're looking for in a current vendor offering, Gartner's De Lotto says, just wait a minute and another is sure to pop up.

BofA Takes the In-House Route

Bank of America decided to build its price optimization-enabling technology in-house, according to the bank's Malouff. It has been using price optimization for its mortgage products for about a year and a half, he says, noting that Bank of America's road to price optimization started about

five years ago when it began collecting the data to support the strategy. The bank observed rates on a daily basis compared to the loans it actually closed, Malouff relates. The data that the bank culled helped it determine demand elasticity. "That was the foundation of it," he says.

Implementing the technology was a quicker process. Rolling out the technology took about 16 weeks, according to Malouff. He points out that the information gives Bank of America a head start on banks that are just starting to look at price optimization strategies. "Our competitors are trying to catch up to where we are," he says.

Price Optimization Pitfalls

For banks trying to tap price optimization to stay ahead of their competitors, there are challenges to consider. Four factors go into price optimization, TowerGroup's Britting says -- people, process, technology and market trends. And the associated obstacles all fall neatly into those categories.

But the major hurdle to price optimization is to know your pricing strategy in the first place, Britting says. "Do you understand what is working and what is broken today?" she asks.

Price optimization also presents unique challenges for financial services, according to Gartner's De Lotto. "A bank is not a cereal box or an airplane seat," he says, explaining that a financial institution's supply and product offerings present additional hurdles for banks. Price optimization is extremely hard to achieve, De Lotto continues, suggesting that one reason people may not be talking about it is because the implementations are not going that well.

"Pilots work well because you are bringing in skilled data personnel" from the vendor who are experts in their price optimization products, De Lotto says. Price optimization requires sophisticated mathematical and programming skills, he continues, and bringing those skill sets in-house can be difficult as there's tremendous competition for them in the United States.

Despite the challenges, price optimization will be a competitive necessity going forward, most experts agree. It "is going to be one of those things you can't not do," TowerGroup's Britting says.

One thing that can be learned from the airline industry, Forrester's Pilecki says, is that the companies that came late to the price optimization table don't exist anymore. "If banks can learn a lesson from that, they should be the leaders rather than being the last ones," she asserts.

For more information, read:

[Analytics, Including Price Optimization, Will Be Big In 2007, TowerGroup Says](#)

[Banks Are Heading Into A Difficult Revenue Environment Driven By Margin Compression And Deteriorating Consumer Credit](#)