Data Mining: Big Opportunities
For Small-To-Midsize Retailers

A Celerant Technology Corp. White Paper
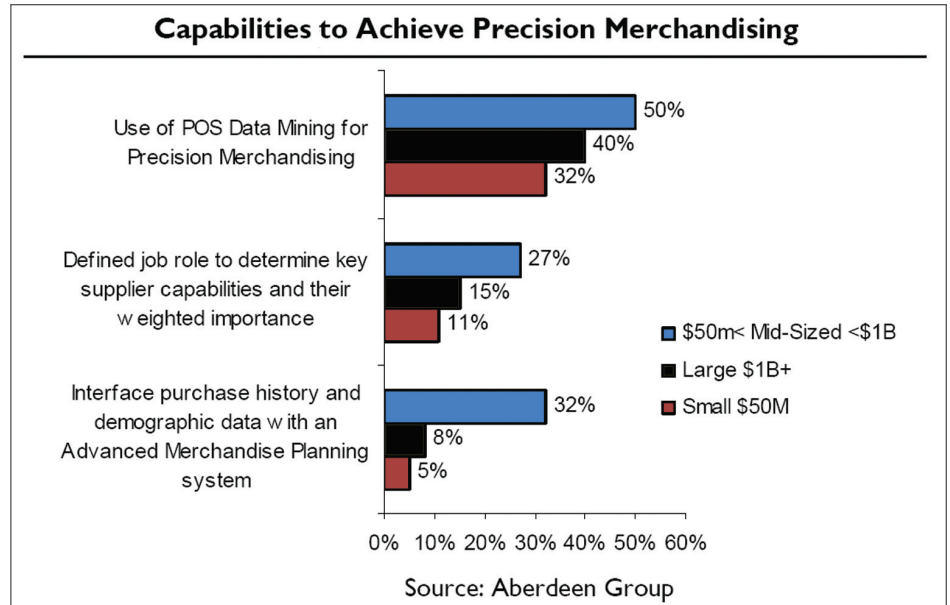July, 2011

Executive Overview:

There is no prescribed limit to the benefits retailers can achieve by unlocking their treasure troves of data, but until recently the keys to those troves were only available to big, tier-1 brands with matching tier-1 budgets. As the technology that drives data mining has matured in terms of its functionality and availability to the market, small-to-midmarket solution providers like Celerant Technology have endeavored to create data mining applications that serve the needs and fit the budgets of its customers.

Using tools from MicroStrategy, Celerant is now building on its experience with data mining applications to expand the value of data access and processing through data warehousing. The resulting development brings a tier-1 business intelligence tool to small-to-midsize retailers.

What Can BI Do For The Midmarket?

Business intelligence is non-discriminatory; that is to say it has many and varied applications that aren't limited as much by retail disciplines as they are by creativity. With better access *to* and processing *of* the data you inherently collect, new levels of understanding can be realized by merchandise planners, inventory managers, store managers, site analyzers, loss prevention professionals, supply chain managers, marketing and CRM professionals, finance executives, buyers, and more.

To date, business intelligence solutions offered to

Capabilities to Achieve Precision Merchandising

Use of POS Data Mining for Precision Merchandising	50% / 40% / 32%
Defined job role to determine key supplier capabilities and their weighted importance	27% / 15% / 11%
Interface purchase history and demographic data with an Advanced Merchandise Planning system	32% / 8% / 5%

Legend:
- $50m< Mid-Sized <$1B
- Large $1B+
- Small $50M

0% 10% 20% 30% 40% 50% 60%

Source: Aberdeen Group

the small- and mid-markets have been merchandising-centric. While reports such as sell-through, monthly sales trend, and week supply are foundational, they aren't the "nuggets" of valuable data that will differentiate one highly-competitive mid-market retailer from the next. In fact, as the graphic on this page illustrates, Aberdeen research indicates that small, and particularly midsized retailers are already quite competitive in terms of merchandising strategy in relation to their tier-one counterparts. That's why it's imperative that retailers demand – and solution providers *provide* – better opportunities to gather and understand *richer* data that can used strategically to differentiate and grow the business.

The data warehouse enables data mining, and it's the key to bringing business intelligence to more varying disciplines and intricate tasks in retail.Mining a data warehouse enables precise insight into trends and analysis as wide and varying by retail discipline as commissions, purchase orders, tender types, cash instruments, market basket analysis, price optimization, and more.

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Price, Promotion, CRM Optimization Through Data Mining

In the short-term, Celerant feels the optimization of pricing, promotions, and CRM (customer relationship management) present the greatest opportunities for the competitive advantage of data mining in the small- and midmarkets, while also serving multichannel operations. More specifically, the greatest advantage of business intelligence in respect to these is the understanding of the correlation among all three, which is difficult – if not impossible – to do without a data warehouse.

At issue is the fact that price, promotion and CRM data are not linear, making it very hard to get relevant data from classic or application-specific reporting. Prices are time, season, and geography-sensitive. Promotions are driven by the calendar and stock positioning. CRM data is inherently dynamic, making it difficult to maintain a consistent understanding of customer bases. It isn't easy to drill down on any *one* of these, much less draw correlations *among* them. Yet understanding these in an effort to optimize the correlations among them (right product, right price, right time) is key to competitive advantage in the reality of modern retail. It's no longer simply about sell-through.

To truly see, understand, and get creative with the price, promotion, and CRM data you already have, you need the ability to slice and dice and configure it in an easily-understood interface. Data warehousing enables that. Then, further refinement of your understanding of these interrelations leads to concepts as sophisticated as market basket analysis – once reserved for the retail

Moving into Promotions Overdrive

How Has Your Company's Pricing Strategy Changed Over the Past Three (3) Years?

■ 2011   ■ 2010

We have become more promotions driven	40% / 31%
Our strategy has not changed	15% / 16%
We have become more focused on key items	15% / 26%
We have become more focused on everyday low prices	10% / 11%
We have become more seasonal driven	8% / 4%

Source: RSR Research

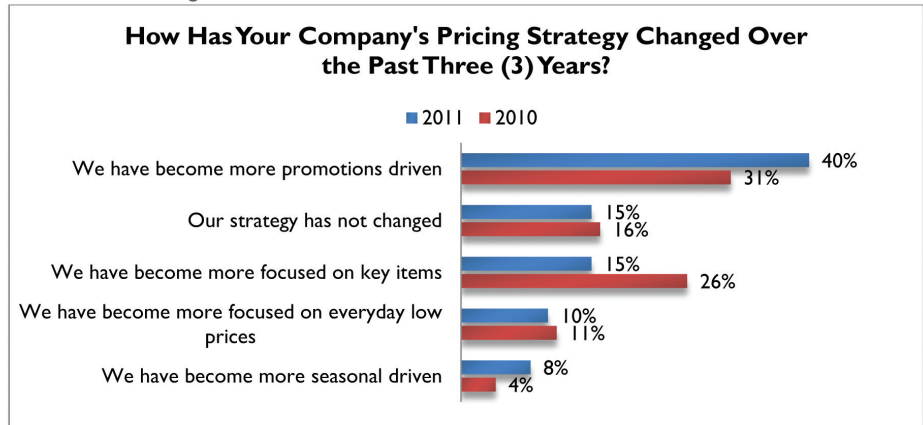elite, but soon available to you.

Independent experts agree. In their recent report, *Optimizing Price in a Transparent World,* RSR Research analysts Nikki Baird and Paula Rosenblum concur that price and promotions are a rapidly evolving strategic area of study for retailers – that evolution being fueled by data mining. "As recently as last year," the report states, "The vast majority of retailers used pricing primarily as a lever to improve gross margin. Those days appear to be coming to an end. Instead, retailers are fairly evenly split on favored opportunities ... [which] include driving top line sales, improving promotion profitability, and bettering the retailer's price image. To achieve more targeted promotions ("your price" instead of "the price"), retailers recognize they have a lot more groundwork to do first.

Lack Of Awareness Contributes To Lack Of Adoption

Retailer demand often shapes the solution provider product landscape, but the small-to-midsize retail market has not clamored for sophisticated BI tools. This isn't due to a perceived lack of value, it's due to a real lack of awareness.

Because the technology – namely business intelli-

gence-enabling software – necessary to leverage price optimization has been missing from the small and midmarkets, RSR survey respondents appear to be more interested in theory than they are in building the foundational elements needed to make those technologies effective. As the chart on this page indicates, technology infrastructures, skill sets, and channel-specific strategies are the top inhibitors to more effective pricing prac-

The Tangled Pricing Technology Web

Top Three (3) Organizational Barriers Preventing You From Implementing More Effective Pricing Practices

■ 2011 ■ 2010

Barrier	2011	2010
Our technology infrastructure limits our abilities	48%	32%
Lack of the right skill sets	38%	30%
Our channel organizational structure makes it difficult to coordinate pricing strategies across channels	31%	
The possibility of negative customer reaction to changes in our pricing strategy	29%	37%
Resistance to change from Stores or other channels	25%	19%

Source: RSR Research

tices. As data warehousing and business intelligence tools encroach on the small- and midmarkets, the use of the technology itself may well prove the cure to the inhibitors. Operational reporting that enhances knowledge and skill sets is part-and-parcel to the point of data warehousing and BI, and the transformative nature of the weapon makes it one of the most important in the battle to overcome channel disparity. In its beta testing, Celerant has successfully extended the data warehouse to Web analytics to analyze traffic and click trends as they relate to merchandising and promotions. The tool is also being used effectively on the operations side, helping retailers realize opportunities to improve fulfillment efficiency, monitor and assess brand and vendor performance, and identify employee performance issues. Regardless of a retailer's size, deep statistical analysis is valuable throughout the organization. For small-to-midsize retailers, much of that analysis has been impossible to date due to a lack of data access and processing power. But that's changing quickly.

"Retailers in these categories want to take advantage of the business intelligence we're bringing to

the market to improve such things as pricing strategy, but many of them aren't even aware that this level of sophistication is available to them. The cost of bringing it to this market has traditionally been too high," says Celerant President and CEO Ian Goldman. With no historically practical solutions from which small and midmarket retailers could choose, their lack of awareness comes as no surprise. Baird and Rosenblum conclude that "while retailers desire a lot more data for inputs into price planning and optimization, they have a long way to go to bring all of that data together."

With a small-to-midmarket-tailored data warehousing solution from Celerant moving rapidly out of beta testing, perhaps the wait won't be so long after all. "Data warehousing may not be a tool you've strived for, but once its in your lap you'll see how it changes your business," concludes Goldman.

Visit www.celerant.com or contact your Celerant representative today to see how simple and inexpensive it is to bring the power of data mining to your business.

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About Celerant

Celerant Technology is a privately held Corporation, providing high quality, advanced retail management software systems to retail organizations. Celerant CEO, Ian Goldman, comes from a retail management software background and founded Celerant Technology to build an entirely new type of retail system from the ground-up. The software that resulted uses Java technology to solve data integration issues with an all-in-one system, seamlessly integrating all areas of retail, in real-time.

Celerant Technology is atypical when it comes to comparing it to other enterprise-solution companies. Our approach is more individually focused rather than mass-produced. In addition to traditional planning, implementation, training and support services, Celerant provides a range of customized services designed to serve the more complex retail enterprises. These services include custom development, integration with ERP and legacy systems, and integration with alternative points of presence. Celerant Technology's headquarters are located in Staten Island, New York with satellite offices in Georgia, Oklahoma, Florida, and Washington State.

Our real-time management system, Celerant Command Retail, integrates all channels of a multichannel retail enterprise, including POS, warehouse, inventory management, sales back office, datamining, open-to-buy, mail order/catalog and e-commerce. Celerant's custom, sophisticated websites expertly manage and market inventory, directly from your Command Retail system, eliminating the need to re-enter data, including product descriptions, customer information and online orders. Celerant's flexible catalog/mail order module, also built within the system, allows you offer multiple catalogs simultaneously and track the different codes, along with varying price levels. Our advantage is the flexibility of our Java platform and the tight integration, allowing retailers to manage all channels of their business with one, scalable, real-time system.

Our Mission

Celerant Technology promotes business growth and efficiency through innovation and technology.

We understand the unique challenges and demands retailers face each day. As a result, our in-house programming team has created an advanced retail management system which exceeds these needs. The fact that our software is developed in-house, allows us to specifically focus on each individual retail business. Our extensive, customizable software provides retailers with sophisticated tools to manage every area of their business operation as efficiently as possible.

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