**IBM** Information Management software

The IBM Retail Data Warehouse: harnessing the power of information.

Executive summary

Retail organizations operate in a world of fierce global competition, slim margins and unpredictable consumers. As consumer markets fragment — with consumers gravitating towards lowest-cost providers for commodities and towards premium niche providers for goods with high personal value — retailers must find ways to adapt more quickly. Complying with increasingly strict regulatory requirements and combating industry trends like the rise of mega retailers only adds to the imperative to act quickly or be pushed aside.
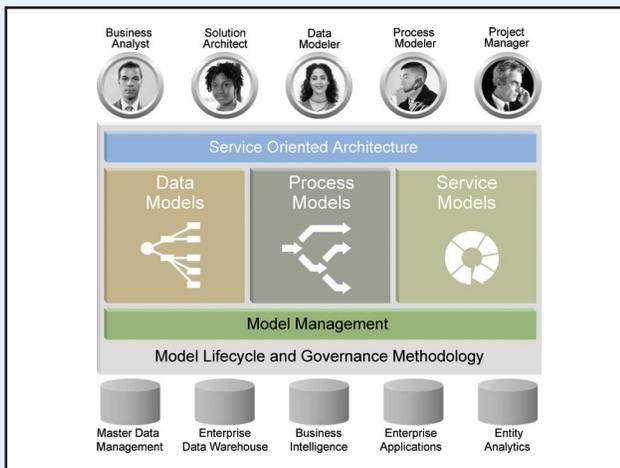
IBM Industry Models speak the language of business.

In the end, however, success in the retail industry begins and ends with the consumer. The organization that truly understands their consumers' needs and purchasing drivers gains the upper hand. But true insight takes more than simple data collection. It requires you to turn the data you gather about your customers, brand and products into actionable information. To transform your supply chain to ensure consumers get the products they want, when, where and how they want. To ensure you can answer these and other key questions about your organization:

Who are my best customers and how do I bring more of them into my stores?

Who responds to offers and how can I increase my closure rate?

What is my optimum inventory productivity and how can I prevent costly inventory overages?

The retail data warehouse (RDW) from IBM can help you get there faster by providing a blueprint for a comprehensive data warehouse and the business intelligence applications that run on it. This executive brief discusses how RDW can help you establish a platform to gain a more complete understanding of your customers and business, and thereby help you choose the best strategies for:

- *Offering differentiated products and services.*
- *Effectively marketing to your customers.*
- *Aligning IT with business goals.*
- *Facilitating compliance measures.*

Industry models for retail

The changing landscape of retail

Today's consumers are smarter, savvier and more informed than ever before. From online shopping to kiosks to brick-and-mortar stores, they expect an efficient, consistent shopping experience tailored to their needs. And just when it's become more critical than ever to reach them, they've become adept at deflecting advertising and blocking communications. Traditional marketing classifications are also increasingly irrelevant to accurately predict behavior. Targeting the middle has become a risky business, as consumers trade up and down with alacrity—routinely buying items in bulk at a discount retailer while simultaneously paying premium prices for luxury items from specialty retailers.

But there is a common factor in adapting to all of these trends: the need for greater insight. Now, more than ever, retailers must demonstrate a superior knowledge of their consumer base. And that means getting relevant information into the hands of business users to help them combat the new trends through better decision making, improved operations, innovative products and superior service.

Whether information flows from one consumer's actions or from thousands of transactions, its value must be extracted and exploited as quickly as possible and across all relevant points up and down the supply chain to have the maximum impact on your bottom line. Fluctuations in sales demand, for example, can trigger adjustments in product acquisition plans or in distribution schedules. Similarly, planned marketing campaigns can integrate with supply chain and with in-store merchandising arrangements. Knowing the profitability of each product, by channel, can drive better decisions about product assortments, including cross-sells and up-sells, that will increase the size of consumers' transactions and grow revenue.

Break through information roadblocks

Unfortunately, the data organizations need is often diverse and complex. Nor is it available in a form that clearly indicates trends, patterns or other forms of analysis to support effective business intelligence. For example, with multi-channel retailing, it can be difficult to know who bought what in each different channel, because different ordering or transaction systems are used by each channel. Integrating the relevant data to gain a view across channels is a very common challenge. In the case of retailers that may have a consumer base that buys anonymously—by using cash so the retailer never collects any personal information about buyers—it is enormously difficult to define and target consumer segments.

The end result is that there is no single analytical view of the customer, and retailers have little to no actionable information about customers, products, inventory and transactions. Though advanced analytics can be a powerful tool in a retail environment, the benefit is limited unless you can provide real-time access to information that is accurate and in context.

To cope with these challenges, many retailers are building data warehouses—unified repositories of data. Linked to the right tools, and tied to the right business processes, data warehouses can drive faster, better decision making and a deeper understanding of customer behavior. By implementing a data warehouse, you can more easily extract the data generated by disparate systems and consolidate it into a unified view of consistent and trusted information across your organization.

Industry models for retail

Case study #1: A Children's Place
### The challenge

With more than 1,400 stores, 4,000 registers and 1.5 million transactions daily, the retailer A Children's Place needed to integrate merchandising and sales across its two primary brands, The Children's Place and The Disney Stores. Separating the two had resulted in no enterprise view of their sales and merchandising, and consequently, little to no business agility for responding to business user needs.

The solution

After consulting with IBM, A Children's Place implemented the IBM Retail Business Intelligence Solution with the RDW Data Model. Using an application-neutral physical model customized to stress financial reporting issues, the company leveraged RDW business solution templates to represent data in business views and terms.

The benefits

Through the IBM solution, A Children's Place now has the ability to analyze a complete profitability picture through a flexible, integrated framework that will allow it to add additional subject areas with minimal integration effort.
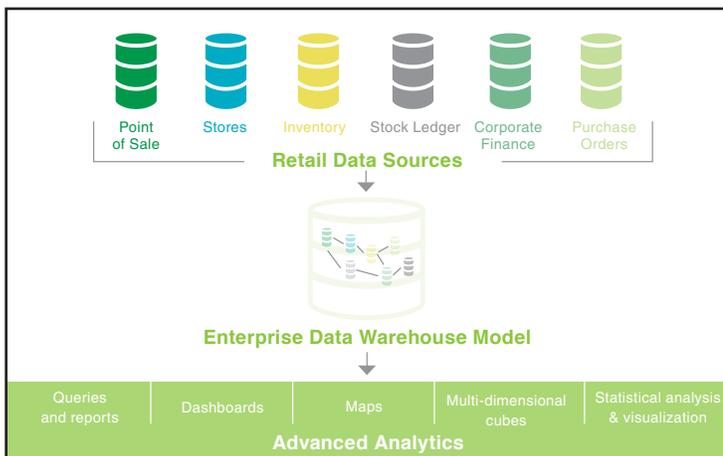
The models lead to an integrated view of retail information.

With near real-time insight, you can better:

• *Segment out your most profitable customers and stores.* It's important to discover not only who shops in your store but who's buying the most—and where. Doing so enables you to take action to attract more of your best customers through precisely targeted marketing campaigns, promotions and other marketing efforts.

• *Determine consumer buying patterns.* There are numerous cross-sell and up-sell opportunities with every purchase. The trick is to identify them. An effective data warehouse solution can help you perform more effective market basket analysis to better understand what your customers are buying and how the items are related—and enable you to increase transaction sizes by reformatting the store to group related items or suggesting similar items at checkout.

• *Analyze marketing campaigns.* Increasing your closure rates starts with the ability to analyze critical data. By doing so, you can find out how to target market plans to top prospects, while launching campaigns aimed at identifiable individuals rather than a broad target group.

• *Increase inventory efficiencies.* The more visibility you have across your infrastructure, the more insight you have into your supply chain operations. With this information at your fingertips, you can help determine your optimum inventory productivity to reduce out-of-stock items and costly inventory overages.

Built for retail success
An effective data warehouse solution goes beyond simple data gathering. It offers a significant competitive advantage through the ability to continuously process data, from inventory stock to product reports, and transform it into information-led business initiatives. It forms the foundation of a true Information On Demand infrastructure—where trusted, relevant information is available to the people who need it, when they need it, so they can make better and more timely decisions.

Often, however, the delays and costs of implementing proprietary and built-from-scratch solutions can quickly derail warehousing initiatives. But there is a simple way to realize strategic value faster. And that's by exploiting tried and tested applications and technologies that integrate with and empower your existing skills and assets.

The IBM Retail Data Warehouse (RDW) encapsulates extensive experience in delivering effective data warehouse solutions to some of the world's leading institutions. Tailored to address the specific needs of the retail industry, the integrated, interlinked and customizable models represent thousands of man-hours of IBM experience with retail organizations of all sizes.

The benefits of using the RDW for a single analytical view of enterprise data include:

• Enables business users to easily scope and customize their own requirements

• Facilitates step-by-step, business-focused development and rollout

• Delivers regularly updated business, technical and regulatory content

• Improves capability to segment markets

• Promotes increased opportunity to cross-sell and up-sell

• Manages definitions and standards in complex IT environments

• Sets the foundation for real-time analytics model

• Utilizes data architecture based on data modeling best practices

• Aligns with Master Data Management and SOA strategy going forward

Case study #2: Canadian Tire
The challenge

One of Canada's most successful retailers, Canadian Tire handles more than 455 stores from coast to coast, offering customers a large selection of national and retail brands that include automotive parts, accessories and service; sports and leisure products and home products. Though successful in each business unit, the units were operated as silos, with no enterprise-wide view of company performance. Tools like Microsoft® Access and Excel® were used on the front-end for reporting and analysis. The lack of a front-end tool prevented the IT department from knowing how data was being used, which made back-end changes risky.

The solution

Canadian Tire decided to tackle both business intelligence and data management at the same time. After looking at several options, Canadian Tire implemented an enterprise-wide system that included IBM Retail Data Model, IBM WebSphere® Information Integrator and Cognos 8 BI as the front-end tool.

The benefits

Through the use of the RDW, Canadian Tire was able to reduce integration development costs significantly below the industry average. Since data is now provided when and how they want it, the company can think in real-time and make faster decisions. Customer demands can be met much faster through quicker application development. In addition, the company will be able to exploit new technology and business trends like RFID by leveraging high-quality data.

Flexible, scalable and designed for compliance with ARTS, the IBM RDW offers a business-focused approach and tools to facilitate the development of a data warehouse. With this approach, you can build both comprehensive enterprise data warehouses as well as departmental data marts through rapid, phased development that initially focuses on business areas offering the greatest returns and technical feasibility.

Some of the key components include:

• *Retail Services Data Warehouse Model (RDWM)*—
The Retail Data Warehouse Model consolidates the data from throughout your enterprise into one comprehensive view. Independent of any particular account, product, organization or channel hierarchy, it consists of more than 80% of the data structures typically needed by a retailer for a data warehouse and can be automatically generated into a physical data warehouse database once it has been customized to meet your exact requirements. Designed to provide business intelligence to a wide range of retailers, it can:

- *Ease the move into new channels of trade.*
- *Provide a reusable platform and data structure environment to reduce the development and operational costs in providing business intelligence functionality to the myriad of store operational and administrative organization units.*
- *Offer a neutral reference point for consolidating multiple legacy data warehouses across lines of business or in the case of mergers and acquisitions.*

• **The Retail Services Data Model (RSDM)**
The Retail Services Data Model is a customizable hierarchy of business terms and definitions that provides a direct link between analytical requirements, data concepts and your core environment. Designed as a jump start in the model development process, it enables you to maximize the value of your existing information.

• *The Retail Business Solution Templates (RBSTs)*

The Retail Business Solution Templates organize the data into specific areas, which enables business managers to quickly and easily specify analytical reporting requirements. Each template consists of a series of measures and dimensions like the key performance indicators (KPIs) for a retail organization, such as sales amounts, gross profit, promotional discounts or stock on hand. To reflect the exact needs of your particular retail organization, you can customize the supplied set of pre-defined templates or create new templates. The pre-defined templates include these areas:

- *Customer management*
- *Merchandising management*
- *Products & services management*
- *Store operations management*
- *Corporate finance management*
- *Supply chain*
- *Multi-chain*
- *Regulatory compliance*

Summary

The Retail Data Warehouse from IBM reaches far beyond simple data gathering. It offers a significant competitive advantage through the ability to continuously process customer and other enterprise data, and transform it into information-led business initiatives. By unlocking information contained in individual applications and repositories from a variety of vendors and making it readily available to the people and processes that need it, the Retail Data Warehouse from IBM can help take you one step closer to a true Information On Demand infrastructure.

Retail Data Warehouse Solution

This comprehensive solution offering exploits a range of components from across the IBM software platform as well as best-in-class Business Partner applications. These include some or all of the following:

- *IBM Information Server — for delivery of trusted, consistent and reusable information*
- *IBM DB2 Data Warehouse Edition — integrated platform for dynamic data warehousing*
- *IBM WebSphere Customer Center — real-time, transactional customer data integration*
- *IBM Rational® Data Architect — enterprise data modeling tool*
- *Business Intelligence applications — tools from IBM Business Partners*

Why IBM?

IBM has spent decades helping businesses generate, manage and extend their enterprise data warehouses, and offers extensive retail expertise and industry best practices, as well as leading information management solutions. Employing more than 1,500 consultants and service professionals dedicated to data warehousing and data management, IBM is ready to help you:

- *Lower your total cost of ownership by exploiting open standards architectures.*
- *Streamline operations by automating administration of your information infrastructure.*
- *Leverage the latest hardware and software technologies, as well as retail best-practices information services.*
- *Minimize risk and improve time-to-value with proven results.*
- *Maximize results across your enterprise.*

For more information

To find out how IBM can help you start unleashing the
power of your enterprise information, contact your
IBM representative or IBM Business Partner, or visit:
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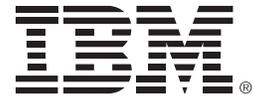
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