# Hudson's Bay Company

## Canadian retailer uncovers new opportunities and controls its supply chain with Teradata Warehouse

### The Customer

A company that is more than 330 years old has experienced its share of difficult economies, and seen many competitors come and go. Hudson's Bay Company (Hbc), established in 1670, is Canada's largest department store retailer and oldest corporation. Even as competition in the Canadian retail market exploded over the past decade and the economy softened, Hudson's Bay Company has seen solid growth. It now has more than 500 stores and 70,000 employees, and continues to grow by providing Canadians with the widest selection of goods and services available through several retail channels, led by the Bay and Zellers chains.

### Business Objectives

Like any large retailer, Hbc's hundreds of stores generated a tremendous amount of data that was spread across a number of operational systems, which made it difficult to quickly access information. To make merchandising and product management decisions, merchandising associates relied on the IT group to produce reports. The reports could take as long as one week to generate, and often were missing information or were too old to be useful by the time they were delivered. Inventory and buying decisions largely had to be made on instinct, not analysis. The Business saw the data warehouse as a way to consolidate and share data. Hbc's IT group knew a data warehouse would provide the foundation to give decision makers on the business side the tools to make better, faster decisions.

### The Teradata Decision

With strong Business backing for the development of a data warehouse, the IT group moved quickly to get the project off the ground. They brought in outside data warehousing specialists, who performed business discovery and then built an off-site data warehouse to focus on inventory management, merchandising and transactions. The consultant built the data warehouse around the Teradata® Database. Hbc was pleased with the performance of the Teradata Warehouse, but wanted to bring its data warehouse inside. Hbc decided that Teradata, a division of NCR, still offered the best data warehousing solution. In 1999, Hbc moved its data warehouse to its Toronto headquarters, staying with the Teradata platform.

Since initial installation, the Hbc data warehouse has grown from 245GB to more than 1.7TB of user data with Hbc adding two nodes to the system each year as new stores and more data are added and new applications are built.

Hbc has used Teradata Professional Services for help in fine tuning its queries and building new applications. Teradata Customer Services helps keep the system available and running at peak performance with ESS Enhanced Service, a proactive service offering that provides around-the-clock, remote monitoring of the system.

The Teradata Warehouse stores both detail and summary sales and inventory data, with information refreshed nightly from more than 100 feeds from several operational systems. More than 400 users access the system to perform ad hoc queries and view standard reports through front-end access tools.

### Results

> **300% return on its investment in data warehouse technology**

> **Inventory and buying decisions are now made based on analysis of detail transaction data**

> **Dramatically improved promotions and reduced lost sales**

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**Business Insights**

Today, the Teradata Warehouse provides Hbc users with a single view of the business for analyzing inventory and promotional programs, monitoring sales and influencing ordering so they can make better, faster decisions. While all benefits of the system have been impossible to measure, Hbc has been able to quantify a 300% return on investment. That's been identified through areas such as reduced excess inventory, lower labor costs because answers are easier to find and a reduction in lost sales during promotions.

According to Mary Jane Jarvis-Haig, Senior Manager, Data Warehousing for Hbc, that's just what the business users have been able to identify. "We have many tremendous softer intangible benefits that are difficult to quantify, such as better information, faster and better decision making."

As a product management system, the data warehouse is having a direct impact on Hbc's supply chain management processes, proving itself to be mission critical to the company's business. The IT group works closely with supply chain managers to refine the procesess they follow to ensure they have the information they need at every step.

"The data warehouse is adding value both in the information it provides and in the

> **"We've already been able to identify that we have earned back three times our investment to date."**
>
> – Mary Jane Jarvis-Haig, Senior Manager, Data Warehousing, Hudson's Bay Company

support of more finely tuned and effective processes," says Jarvis-Haig. "The data warehouse began as just another information source, but the business has become very dependent on it."

The importance of the Teradata Warehouse is evident in the promotions the retailer runs – promotions that are critical to driving revenue. Previously, merchandising associates relied on spotty reports or they made decisions based on instinct. Now users can query the system by SKU level by store to analyze promotions to ensure the right amount of inventory is in stock at each store when specific products are promoted. That means less lost sales and fewer product mark-downs. Promotions on seasonal items like beach towels have seen significant reductions in lost sales with improved store allocations.

Hbc is also using the data warehouse to better know its customers' needs through market basket analysis. Users can quickly query reams of transaction data to discover product affinities.

"We can see if customers are coming in and buying only what is advertised, or are they also buying related products," explains Jarvis-Haig. "If we put toothpaste on sale, do we need to also promote toothbrushes or are they bought anyway? It may seem obvious, but when you're so close to the detail, sometimes you don't see the obvious. The ability to analyze shopping baskets really points to who our most profitable customers are and how we can reach them."

Market basket anaylsis is also used to gauge the success of new line launches. By using a specific driver item, Hbc gets immediate feedback on the impact of the new line. In some cases, that has resulted in lines being discontinued before serious impact on markdowns and customer satisfaction can occur. Basket analysis also provides input on flyer effectiveness and has allowed Hbc to reduce circulation costs by focusing flyers in areas where their usage is high.

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## Why Teradata?

The IT group has a number of plans to further enhance the effectiveness of its data warehouse. It will be working to move the system to an active data warehouse through trickle feeds of data and further efficiency improvements from its operational systems. It will also be working to further integrate operational systems with the data warehouse to accommodate event triggers.

As the IT group continues to justify the investment in the Teradata Warehouse, ease of administration continues to be a major factor. "As IT people, the Teradata Database is easy for us because it really does manage itself. It takes a minimum of resources to manage a Teradata configuration," explains Jarvis-Haig.

Jarvis-Haig also says the Teradata Database has lived up to its reputation as a powerful platform through its ability to easily scale with each hardware upgrade, which is critical to continue to help the company drive business growth and realize solid returns on its investment.

## Teradata Warehouse Solution

> ### Hardware
6 node NCR 5250 server; 4TB of NCR disk space; ESCON connected to an MVS mainframe

> ### Applications
Teradata Version 2 Release 4.1

Teradata utilities: QueryMan, Teradata Manager, FastLoad, MultiLoad and FastExport for UNIX, FastLoad, MultiLoad, FastExport and ARC for MVS

> ### Services
Teradata Professional Services provided project management, training, data modeling assistance and data translation assistance

Teradata Customer Services provides Installation Services and around-the-clock, remote monitoring of the system through ESS Enhanced Service

"When we look back at what we've invested, and the benefits that we've been able to quantify so far, and I know we've missed some, we've already been able to identify that we have earned back three times our investment to date," says Jarvis-Haig.

For more information, visit Teradata.com

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