Purolator Logistics 2015

Canadian supply chain innovations and best practices
## Table of contents

**Introduction** .................................................................................................................. 3  
  • Canadian executives optimistic about future growth ............................................. 3

**Inventory management** ............................................................................................... 4  
  • Regional multi-client warehouses ..................................................................... 4  
  • Vendor-managed inventory ................................................................................. 4  
  • Demand management ............................................................................................ 5  
  • Demand sensing ..................................................................................................... 5  
  • Just-in-time ............................................................................................................... 5

**Transportation optimization** ..................................................................................... 6  
  • Consolidation ......................................................................................................... 6  
  • Route optimization .................................................................................................. 6  
  • Distribution centre bypass ..................................................................................... 6  
  • Intermodal options .................................................................................................. 7

**Cost efficiencies** ......................................................................................................... 8  
  • Horizontal collaboration ........................................................................................ 8  
  • Vested outsourcing ................................................................................................. 8  
  • Freight costs ........................................................................................................... 9  
    – Freight classification ......................................................................................... 9  
    – Accessorial charges ......................................................................................... 9

**Returns management** ............................................................................................... 10  
  • Flexibility in scheduling ....................................................................................... 10  
  • Centralized returns centres .................................................................................. 10  
  • Border consolidation .............................................................................................. 10  
  • Integrated returns material authorization ............................................................ 10  
  • Multi-channel visibility ......................................................................................... 10  
  • Sustainability .......................................................................................................... 10

**Conclusion** .................................................................................................................. 11

**References** .................................................................................................................. 12
The good news for Canadian businesses is that rising demand for domestic products seems to have staying power, with modest growth forecasted for the foreseeable future. But for many businesses, the increased demand has exposed supply chain inefficiencies that could prevent them from taking advantage of the opportunity.

In fact, in a 2014 survey of Canadian businesses, only 50% of respondents said they have a supply chain in place, and 30% reported that implementing a supply chain was not a priority because of their small size.

**Canadian executives optimistic about future growth**

This lack of systematic coordination is a tremendous missed opportunity for businesses operating in Canada. A well-oiled supply chain ensures visibility into all aspects of the business process and can pinpoint potential inefficiencies – and opportunities for improvement. A Toronto manufacturer that relies on parts from Asia that enter the country in Vancouver, for example, may think it has an optimal logistics plan in place. But unless time is spent considering alternatives, the manufacturer is quite possibly missing out on opportunities to transport those goods more efficiently.

An Industry Canada review of capabilities called supply chain performance “an important competitive differentiator” and noted that ongoing innovation has had a significant impact on making Canadian businesses more competitive, both at home and abroad.

But how to get there? KPMG, in its report “Reshaping the Supply Chain: New Opportunities for Canadian Manufacturers,” cites a strong desire among Canadian businesses for “deeper, closer relationships” with suppliers so as to build more sustainable supply chains that are less vulnerable to risk. Collaboration plays a critical role, with information shared among all stakeholders and all parties working toward the same objectives.

Technology, of course, has played a key role in enabling much of this innovation. Route optimization, inventory management, order processing and visibility/tracking are just a few of the supply chain components that have undergone fundamental transformations. In many cases, tech solutions that were once cost-prohibitive for many small Canadian businesses now fit into the budget, thanks to cloud technology and other options for shared software.

The following discussion details some innovations that have taken hold within the logistics industry, including trends and best practices that are changing the face of Canadian supply chain functionality.
One of the lessons of the recent recession was the high price of carrying too much inventory. Although Canadian manufacturers were not impacted as severely as their U.S. counterparts, businesses were forced to shave billions from their inventory levels. Businesses caught off-guard with too much inventory faced the unanticipated expense of having to warehouse the unsold products or sell them at dramatically reduced profit margins. Lululemon Athletica chief financial officer John Currie, for example, told Bloomberg News that his company became very frugal during the recession by reducing inventory levels and focusing only on the most popular styles and colours.

Since then, the challenge has been to manage inventory so that products are within striking distance of their end destination and can easily be moved to meet immediate demand. But finding that right balance can be difficult unless a business is willing to explore new options for addressing the age-old problem of efficient inventory management. Following is a brief overview of current trends that are helping businesses to find that balance and to better manage their inventory needs.

**Regional multi-client warehouses**

Many businesses have solved the problem of keeping inventory close to customers by relying on regional multi-client warehousing solutions. In a multi-client warehouse, several manufacturers share space and are charged based on usage. This warehousing strategy can be beneficial both financially and geographically, allowing manufacturers to store goods in several convenient locations.

Shared warehouses are appealing to manufacturers that don’t need a dedicated warehouse or that can’t justify the cost of one. Sharing a warehouse is especially cost-effective when “tenants” are from the same industry and can share transportation modes as well as warehouse space.

Multi-client warehouses can help businesses keep pace with the growing trends of same-day delivery options, “click and collect” availability and other customer-driven omni-channel solutions. By maintaining inventory in networks of shared warehouses, businesses can meet customer expectations for faster and more efficient delivery options while keeping expenses in check.

**Advantages of multi-client warehousing:**

- **Cost savings.** A business pays only for the space it uses.
- **Scalability.** Businesses are able to adjust their warehouse usage to fit their business cycles. A retailer can increase usage during the peak holiday season or in conjunction with a new product launch, for example, and cut it back during less busy periods.
- **Comprehensive warehousing solution.** Most regional warehouses are fully staffed and offer a full array of supply chain and warehousing services. A business can rely on a regional warehouse and its trained workforce for services such as kitting, picking, transportation management, order management, distribution planning, fulfilment and other value-added services.
- **Specialty services.** A manufacturer can also take advantage of a fully staffed regional warehouse for occasional needs for special services such as unique packaging requirements or an unusual logistics plan. With a dedicated warehouse, a business would have to shoulder the entire cost for having access to these services, but the “shared cost” philosophy of the regional warehouse means a business pays for the services only when needed.

**Significantly improved speed to market.** By holding inventory in networks of strategically located shared warehouses, businesses can offer same-day and other expedited delivery options previously unthinkable.

**Vendor-managed inventory**

Although not a new concept, vendor-managed inventory (VMI) has grown in popularity in recent years, largely because by using it, businesses can avoid having to assume responsibility for inventory. Instead, inventory obligations shift to the supplier, who tracks inventory levels and restocks as needed. Inventory is held by the supplier onsite or at a nearby location. Key benefits to the business include access to inventory as needed and liability to pay only for...
Inventory management

what is used. In addition, suppliers ensure that merchandise is properly displayed and that employees are trained about products’ selling points.

Jon Schreibfeder, inventory management expert, author and president of Effective Inventory Management, Inc., has said that a well-managed VMI has the potential to be a win-win for both the supplier and customer. But, he cautioned, any VMI agreement must clearly delineate expectations, fee structures and responsibilities.

Demand management

In its simplest form, demand management is the process whereby a business uses various indicators to forecast customer demand and aligns its supply chain to meet those projections. It has also been defined as “balancing customers’ requirements with the capabilities of the supply chain”; still others have likened demand management to “management by crystal ball.” Regardless of how it is defined, demand management is a highly effective, technology-driven tool for helping businesses manage inventory.

Central to its success is the synchronization and integration of many different parts, with technology being the glue that holds everything together. The typical business has access to troves of data about virtually all aspects of its business. Big data can be truly overwhelming unless a business has the mechanisms in place to properly manage and assess the information.

A benchmark study by researchers at Boston-based Aberdeen Group, “Demand Management in Discrete Industries: Order to Delivery Excellence,” found that of the more than 260 businesses surveyed, 70% have a demand management program in place.

Demand sensing

Demand sensing is a relatively new concept in inventory management that allows businesses to focus on near-term demand. Demand sensing takes the data-driven principles of demand management to a higher level by applying additional indicators and different mathematical equations. Whereas demand management tends to rely on historical sales data and make assumptions based on previous years’ practices, demand sensing relies on real-time supply chain practices and tries to predict future demand based on indicators including open orders and daily sales.

As reported by Supply Chain Brain, demand sensing gives businesses a more exact forecast of consumer demand. “The method serves as an alternative to traditional demand planning, whereby companies look primarily at seasonal patterns and average sales for a given time of year,” explained Rob Byrne, chief executive officer of software provider Terra Technology. “Demand sensing,” said Byrne, “brings in all the data that might be relevant about what’s going on in the marketplace.” Orders, historical trends, point-of-sale data and channel inventory are among the inputs that can be factored into the mix.

Just-in-time

Initially popularized by Japanese automakers more than 20 years ago, the just-in-time approach to manufacturing and inventory management has made a strong comeback in recent years as recession-weary businesses seek to maintain lean inventories and keep costs sharply under control. Through the just-in-time approach, a business stocks only what it needs to fill immediate demand, often relying on a single supplier for key parts. Timely replenishment and reorders depend on orderly movement of all parts of the supply chain – one delayed shipment at any point can result in disruption of the entire process.

Businesses willing to “live on the edge” can find real cost savings through the just-in-time approach. The key is to have a plan in place to deal with supply disruptions or unexpected twists.
Transportation optimization

It used to be that businesses looking for service across Canada were at the mercy of their carriers’ pickup and delivery schedules. No consideration was given to a business’s preferences or even to when a product had to arrive at its destination. Instead, businesses were offered a “one size fits all” option, which essentially treated Canada as a single destination.

Today there is a shipping solution to meet virtually every need. Many of these options have been made possible through technology, while others are the result of innovative thinking that has led to an array of best practices taking hold within the freight industry.

It’s important to note that not every freight or logistics provider offers these time- and money-saving options. Some do not have the technology or bandwidth to offer innovative service options, while others have yet to embrace the changes that are fundamentally changing the way freight is transported. Following is an overview of some of the services currently offered that can help reduce costs.

**Consolidation**
Combining smaller shipments into one larger unit can be a tremendous source of savings and can be accomplished in a number of ways: placing multiple orders in the same carton, banding multiple cartons together, palletizing shipments or using a full truck. By some estimates, consolidation can reduce freight costs by as much as 10%.

If crossing a border, a consolidated shipment can cross as a single unit, thereby reducing clearance wait times and associated fees. Once across the border, a consolidated shipment is then broken down, sorted and directed to the appropriate distribution channels.

**Route optimization**
Among the many positive contributions technology has made to the freight/logistics industry, the concept of route optimization has been one of the most beneficial. Route-optimization software helps companies better manage their distribution networks through the use of advanced algorithms. The process calculates the most efficient service option, maps out direct routes and matches available trucks and drivers to make the delivery. Through this technology, delivery routes become much more streamlined, meaning reduced mileage and lower fuel costs. Purolator Inc., for example, has tweaked delivery routes to eliminate waste and redundancies and has thereby reduced driving distances by more than 8.5 million kilometres annually.

**Distribution centre bypass**
Until recently, a two- to three-day stopover was automatically accounted for in a standard distribution plan, regardless of whether or not it was needed. According to *Supply Chain Digest*, in some cases, a shipment was required to travel thousands of miles out of the way to make a distribution centre stopover, only to make a return trip back to the vicinity of its starting point.

In recent years, businesses and logistics providers have realized the enormous waste in this arrangement. Instead, companies have opted to open regional distribution centres to accommodate local needs or to streamline routes so that shipments can travel directly to their end destinations.

DC bypass can eliminate seven to 14 days from the supply chain, significantly improving speed to market. The shortened distribution cycle is a lifeline for businesses trying to rush products to market and for those simply trying to control costs. Many retailers are discovering that DC bypass also allows for better management of inventory because inventory that is constantly moving, rather than sitting idle in a warehouse, provides retailers a real-time sense of supply.
Intermodal options
As Canada’s trucking industry continues to address the dual problems of tightened capacity and a severe driver shortage, a growing number of shippers are turning to rail and other intermodal options for long-distance shipments.

Rail transport – the primary venue for intermodal shipping – has undergone a transformation over the past 20 years. Whereas rail has historically been associated with long, slow journeys of cars filled with coal, grain or oil, today’s railways are modicums of efficiency. Among the transformations that have taken place are the following:

- The industry has become streamlined to the extent that strategically located hubs support point-to-point cycles.
- Shippers are increasingly attracted to rail’s capacity to transport truck trailers on flatbed cars, including double-stack capacity.
- Rail offers a significant economical advantage when shipping freight over long distances, largely because of fuel efficiency. In general, rail shipping is 15% to 18% less expensive than shipping by truck.
- Heavy investments in infrastructure have resulted in the nation’s rail providers, being more tech-savvy, efficient and environmentally friendly.
- Rail has made significant improvements in speed and consistency, making it more truck-like. According to one rail provider, a rule of thumb is “truck plus a day.”
- Rail can transport a ton of freight more than 200 kilometres on a single litre of diesel.
A 2014 KPMG survey of Canadian manufacturing executives found agreement on the top challenges facing their businesses in the coming years: offering competitive prices, engaging top suppliers, finding skilled talent, understanding customer needs and dealing with a lack of “company mindset.” While these are certainly challenges that have long-stymied even the most successful organizations, today there is an abundance of new ideas that can turn these challenges into opportunities.

**Canadian manufacturers set top strategic priorities**

<table>
<thead>
<tr>
<th>Priority</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exiting unprofitable business lines</td>
<td>6%</td>
</tr>
<tr>
<td>Greater speed-to-market</td>
<td>8%</td>
</tr>
<tr>
<td>Improving risk controls</td>
<td>13%</td>
</tr>
<tr>
<td>Increasing R&amp;D/development of new product lines</td>
<td>20%</td>
</tr>
<tr>
<td>Reducing operational complexity</td>
<td>25%</td>
</tr>
<tr>
<td>Sales growth</td>
<td>36%</td>
</tr>
<tr>
<td>Increasing cash flow from operations</td>
<td>49%</td>
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<tr>
<td>Reducing cost structure</td>
<td>41%</td>
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<tr>
<td>Reducing operational complexity</td>
<td>51%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
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</tbody>
</table>

Source: KPMG Canada

**Horizontal collaboration**

A recent article in *Supply Chain Management Review* described horizontal collaboration as companies’ sharing supply chain assets for mutual benefits. Businesses in the same industry, which often have the same customers and same logistics needs, are prime candidates for horizontal collaboration. A current high-profile example involves two competing North American chocolate manufacturers, the Hershey Company and the Ferrero Group. The two companies announced in 2011 that they had entered into an alliance to share warehousing, transportation and distribution processes and assets.

Businesses interested in integrating horizontal collaboration solutions into their supply chains should be forewarned, though. It’s not for everyone, and it’s hard work. According to supply chain research group eyefortransport, top concerns for businesses include:

- Fear of information disclosure
- Lack of clarity over who’s in charge
- Lack of widespread acceptance of ideas
- Difficulty finding appropriate partners
- Difficulty starting trusting relationships

**Vested outsourcing**

If all parties have a stake in a business arrangement’s outcome, doesn’t it follow that everyone involved will do whatever it takes for a positive result? This is the logic behind “vested outsourcing,” a new business model that relies on creating win-win relationships between parties.

The premise was developed by a team of researchers at the University of Tennessee who undertook a project, funded by the United States Air Force, to try to figure out ways to cut spending on key cost centres including information technology and operations.
As team member Kate Vitasek explained, their work gave rise to a belief in “outsourcing for results,” rather than simply for services. Through vested outsourcing, companies take the old adage “What’s in it for me?” and turn it into “What’s in it for we?,” Vitasek told a Bloomberg TV audience. Major corporations including McDonald’s, Intel and Procter & Gamble have espoused the vested outsourcing model with notable success.

Whereas in the past a business would approach a service provider and try to negotiate the lowest cost and most favourable terms possible, a vested model involves a partnership in which each has a stake in the other’s success.

**Freight costs**

Businesses can better manage their freight by having at least a cursory understanding of the charges that appear on monthly invoices. Two examples:

**Freight classification.** In an effort to provide a baseline for pricing within the freight industry, the National Motor Freight Association maintains a set of 18 different “classes.” Each class incurs different charges based on weight, length, density, ease to ship, value and liability for theft, damage or spoilage. The classification system is maintained by the National Motor Freight Traffic Association (NMFTA), with each class assigned a numerical rating ranging from a low of class 50 to a high of class 500. The lower a product’s class, the lower the shipping costs. NMFTA re-examines the classification system each year, meaning that a product assigned to a particular class one year may travel under a different, lower-priced class the next year.

**Accessorial charges.** These charges are extra fees for services beyond simply shipping a good from point A to point B. Examples may include border-clearance fees, waiting time, storage, packing, hazardous materials consideration and extra fuel. By some estimates, accessorial charges can account for as much as 40% of freight expenses.

The good news is that most accessorial charges can be managed. A business may be able to negotiate charges that will be routinely incurred for extra services. For example, if a shipper will always need special handling for its shipments, then that need should be factored into the freight quote, rather than added on at the end.
Returns management

Returns management is an often-overlooked part of the supply chain. But since product returns can account for almost 9% of traditional Canadian businesses’ total sales – or as much as 17% of e-commerce retailers’ – an efficient reverse logistics plan makes good sense. Consider also that:

- 80% of returned products are not damaged, meaning there is resale potential in retail outlets and other secondary markets
- Canadian consumers increasingly see a seamless, efficient returns policy as part of the overall “retail experience” and have said repeatedly in polls that they will not return to a retailer with an inefficient returns policy.

For a business to improve its management of returns, the first step is to choose a logistics partner – and to choose wisely. A business will need to shop around, do its homework and ask a lot of questions to make sure the logistics provider has the experience, capacity and capability to perform as promised. Considerations include the following:

**Flexibility in scheduling**

Build a returns management strategy that gives you the level of service you need. Do you need to receive returns on a daily basis, or would a weekly or even biweekly schedule be more appropriate for your business?

<table>
<thead>
<tr>
<th>Metrics</th>
<th>2012</th>
</tr>
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<tbody>
<tr>
<td>RCC retail industry sales</td>
<td>$303 billion</td>
</tr>
<tr>
<td>Returns as a percent of total sales(1)</td>
<td>8.6%</td>
</tr>
<tr>
<td>Amount of merchandise returned</td>
<td>$26 billion</td>
</tr>
</tbody>
</table>

Source: Retail Council of Canada and The Retail Equation

**Centralized returns centres**

Where exactly do you want your returns delivered? A growing trend is to process returns at a dedicated returns centre, rather than at a traditional distribution centre. A dedicated returns centre allows businesses to focus resources and build best practices; by one estimate, having a dedicated returns centre can be as much as 20 times more efficient than having multiple processing points.

**Border consolidation**

If a border crossing is involved, consider having your goods consolidated at the border so that many small shipments can clear customs as a single unit. Border consolidation can facilitate the customs review process and reduce costs as well.

**Integrated returns material authorization**

A returns material authorization (RMA) label can be preprinted and sent to customers with the outbound shipment, and the customer can fill it in. Alternatively, a web-based system can print a label after the RMA number has been assigned.

**Multi-channel visibility**

Customers are demanding that returns be handled quickly and with complete visibility into the process. Such visibility, available 24/7 through web-based portals, can give customers direct information about the status of their return and provide them with information should a delay occur. Key company systems – finance, customer service, warehousing – could be integrated to give customers up-to-the-minute progress reports.

**Sustainability**

It’s also important to incorporate sustainability wherever possible. An obvious way to start is by finding “second lives” for returned merchandise. The 80% of goods that are returned with no defects can be sold in an outlet or dollar store or on an overstock website. In the case of returns that are defective, sustainability can be attained by repairing the product or by breaking it down to its component parts, which can then be sold on a secondary market.
A 2014 roundtable discussion of warehouse and distribution centre managers listed the industry’s top concerns as economic conditions, buyer preferences, product life cycle, e-commerce and real estate costs. “Continual change is the norm,” noted panellist Dan Gowette of TFT Global. “And how do you cost that? Because if you’re continually having to change to meet your customers’ requirements and still maintain a competitive edge, it becomes very difficult to plan for that inside of your structured costs,” he continued. “So it becomes very much a juggling act, doesn’t it?”

A juggling act is an apt description of the pressure facing businesses throughout Canada as they search for ways to adapt to changing purchasing habits and customer expectations. Fortunately, businesses are finding that help is available.

For one thing, many supply chain options that simply did not exist as recently as five or 10 years ago are now available. Route optimization, for example, is entirely the result of technological innovations and is helping businesses shave redundant, “wasted” kilometres off their transportation routes. Businesses now have a better understanding of the importance of collaboration among all supply chain partners and of the value in rethinking the way things are done.

Canadian businesses now have unprecedented opportunities to find efficiency and cost savings throughout their supply chains. With the right logistics partner to help lead the way, those opportunities can become realities.

Conclusion

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About Purolator Logistics

Purolator Inc. is Canada’s leading integrated freight and parcel solutions provider, with one of the nation’s most extensive transportation and logistics networks. Purolator Logistics, a service of Purolator Inc., offers businesses comprehensive solutions to improve overall supply chain efficiency and speed to market and to reduce distribution costs. Through Purolator Logistics, businesses benefit from customized solutions for all their logistics needs including importation/border-clearance management, warehousing and fulfilment, transportation services and returns processing. Purolator Logistics provides one-stop solutions that ensure businesses greater flexibility, customized solutions and maximum efficiency.

Contact us at 1 855 268-8255 or, by email, at purologistics@purolator.com to learn more about Purolator Logistics’ supply chain optimization solutions. A Purolator customized solution will improve efficiencies and reduce costs within your current supply chain…to, from and within Canada.
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