



Business-to-Business E-Commerce Basics

E-BUSINESS

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Introduction

One of the last and greatest promises during the Internet boom of the late 1990s was the impact of business-to-business (B2B) e-commerce on the traditional business landscape. Industry experts along with marketing “gurus” hyped B2B e-commerce so much that near panic often ensued, with business leaders demanding B2B solutions to be investigated at all costs. Thousands of online marketplaces (e-marketplaces) began to appear to satisfy the apparent need, but the Internet bubble soon burst and these e-marketplaces disappeared as fast as they had once materialized. B2B e-commerce quickly fell out of favour with the same lack of informed decision-making that had once started the whole process.

As with e-business in general, B2B e-commerce has quietly begun to mature out of the spotlight of speculation and hyperbole and is poised to truly redefine business processes in the new millennium. This document will introduce you to the basics of B2B e-commerce from the perspective of small and medium-sized enterprises (SMEs), separating fact from fiction, with a dose of common sense thrown in for good measure.

What is Business-To-Business E-Commerce?

Business-to-business e-commerce may be defined as the buying and selling of goods and services between companies online. There are two distinct aspects of B2B e-commerce that separate it from the more familiar business-to-consumer (B2C) “e-tailing” model:

- **Flexibility in pricing.** Transactions between businesses often require variability in the pricing of products between purchasers. This concept of haggling is rare in the B2C marketplace.
- **Integration of business systems.** To realize increased productivity and savings, businesses involved in B2B will integrate their internal systems together, enabling less human intervention.

E-Procurement

Internet-based electronic procurement of goods and services between companies is called e-procurement. In the same way that B2C e-commerce is often referred to now as e-tailing, labelling B2B e-commerce as e-procurement better shows how B2B affects a company's traditional supply chain.

E-Marketplaces

Electronic marketplaces, also known as B2B exchanges, serve as electronic hubs bringing together suppliers and purchasers in common virtual environments. E-marketplaces are either “many-to-many,” bringing together many buyers and sellers in a particular vertical

market, or “one-to-many” where one major supplier or consumer will attract many of its trading partners to its e-marketplace. Over the past couple of years, it has been these private, one-to-many e-marketplaces that have proven to be the most successful. One well-known public Canadian e-marketplace is SourceCan.com.

Government E-Procurement

In their ever increasing need to label things they didn't understand, marketing pundits began touting yet another e-commerce buzzword: B2G, or business-to-government, e-commerce. Buzzwords aside, e-procurement by various levels of government in Canada has been quite successful. MERX (www.merx.com/) is an online e-marketplace where businesses can bid on contracts from federal and provincial governments, and recently also the MASH (Municipal, Academic, Schools and Hospitals) sector.

MERX has opened up more opportunities for SMEs to bid on government contracts. It is free to browse MERX, and it's available in both official languages. Alberta entrepreneurs can also access the Alberta Purchasing Connection at www.purchasingconnection.ca/ to bid on provincial government contracts.

Supply Chain Basics

The Bridgefield Group Inc. (www.bridgefieldgroup.com) defines a supply chain as:

The linked set of resources and processes that begins with the sourcing of raw material and extends through the delivery of end items to the final customer. It includes vendors, manufacturing facilities, logistics providers, internal distribution centers, distributors, wholesalers and all other entities that lead up to final customer acceptance. The extended supply chain for a given company may also include secondary vendors to their immediate vendors, and the customers of their immediate customers.

The traditional model is known as the “push” model, whereby suppliers and vendors on top push their products or services through the supply chain to the end consumer. Costs are accumulated through the chain with the end consumer typically incurring much of the cost.

“Pull” Model for Supply Chains

E-Procurement has given rise to the concept of a “pull” model supply chains. In this model, the consumer has the most power in the supply chain, and suppliers must react to their demands. Greater efficiencies in the supply chain can occur, and the linear nature of the chain may be broken as customers become better able to circumvent middlemen and resellers.

E-Procurement's Effect on Supply Chains

Besides the general shift to a "pull" model, e-procurement can have many other effects on the supply chain. For example, with greater visibility comes greater efficiency. Resellers are forced to truly bring some sort of added value to the table lest customers deal directly with their suppliers and remove them completely from the equation. Suppliers can now quickly respond to consumer demand and limit excessive inventory and associated storage costs. Shipping logistics become easier to control, and costs are reduced. Customers can handle most, if not all, shipping tracking, notification, auditing, documentation, and labelling online. This reduces paperwork and overall time required for products to pass through the distribution system.

Electronic Data Interchange

Electronic Data Interchange, or EDI for short, is the dinosaur of B2B e-commerce that still will not go away. The forerunner of today's Internet-driven e-procurement, EDI was established in the early 1970s as a way to automate buyer-seller transactions, such as invoices and purchase orders. Large corporations began standardizing the format for electronic business documents, and industries started agreeing on common standards, administered by recognized standards organizations. The two most common EDI standards are EDIFACT in Europe and ANSI X.12 in North America.

For many businesses, EDI is far too expensive to implement. All EDI traffic takes place over a value-added network (VAN) that exclusively transmits the data over a private network, offering transaction management and auditing. Businesses implementing EDI used to require expensive mainframe computers, with VANs that charged for each character transmitted.

From a technical standpoint considering the Internet of today, EDI is well past its prime. Data transmission rates are often still at 9600 bits per second (for you non-techies, a cable or DSL Internet connection is about 200 times faster), standards differ across industries, and on the surface it is just a glorified email inbox. So why is it still around? Quite simply, the amount of time and money companies have invested in EDI over the years makes changing to a new system not very attractive. Industries spent years agreeing to EDI standards, and none are too willing to start the process again.

Wal-Mart: An E-Business Success Story

Possibly the single greatest success story of e-business and B2B implementation is that of the rise to dominance by Wal-Mart in the North American retail market. Love them or hate them, you have to hand it to Wal-Mart for their impressive growth in such a short time span. And arguably the single most important factor in this rise was their harnessing of the power of e-business, e-procurement, and the adjustment of internal processes to maximize this advantage.

More than any other company, Wal-Mart has revolutionized supply chain management by using a "pull" model where customer demands drive the suppliers. Inventory control is

finely honed and purchasing trends are available to suppliers, whom now must be able to quickly respond to the needs of millions of customers. The business decision to decentralize the procurement process means that front-line staff in every store can immediately order the appropriate stock electronically, which will in turn require rapid turnout of product from the suppliers. This rapid replenishment system, coupled with accurate purchasing forecasting, helps Wal-Mart reduce overall costs.

While not always good for suppliers in general, Wal-Mart's power as a giant in business has helped in establishing new standards for B2B e-commerce. Wal-Mart's mindset of cutting costs at all costs resulted in them deploying EDI over the Internet to eliminate the costly VAN altogether. EDI over the Internet (EDI-INT) uses a new standard called AS2, a communication protocol that attempts to make EDI communications over the Internet both secure and reliable. By mandating their suppliers to use AS2, Wal-Mart leads the way in creating a demand for a new generation of EDI, and in turn drives the whole world of e-business forward.

B2B for the SME

Your IT staff might only consist of your neighbour's child who seems to know "everything about computers." Being a supplier for Wal-Mart or similar corporations is impossible due to minimal margins, lack of the enormous IT investment, and nowhere near the capacity to supply such a demand. *So where can small and medium-sized enterprises benefit from business-to-business e-commerce?*

Purchasing Indirect Supplies

Indirect supplies, such as office furniture, pens, paper, and general office equipment, are often a first step for smaller businesses to implement B2B e-commerce. Many suppliers offer catalog-based websites for corporate purchases, and are similar to buying online from a B2C website. Corporate accounts can be established online, and organizations can save significant time and money on automating this purchasing process.

Purchasing Direct Materials

Direct materials are any products that go into the production of your goods or services for sale. Establishing a relationship with a vendor that supports e-procurement may reduce costs. Joining an e-marketplace and holding reverse auctions where your suppliers bid on your requirements can lead to a real reduction in the overall cost of manufacturing your product.

Selling Products or Services to New Vendors

Joining an e-marketplace can open up new opportunities to sell your products around the globe. While many private e-marketplaces are restricted to vendors of the particular organization running the exchange, public hubs can allow you to offer your services to all other participants. Hopefully the same e-marketplace where you make purchases can be

the same place where you sell your wares, thus increasing your reputation as a valued member of the online community.

Leveraging Your Existing Web Presence

Perhaps you already have a business-to-consumer e-commerce website. Greater sophistication can be programmed into your online store to target business clientele. This often includes adding account registration and per-user price discounting, as well as possibly allowing for purchase orders as payment for corporate clients. You should keep in mind that this additional functionality is not trivial, and could require rebuilding your online store from the ground up at a significant cost.

Investing in Your Own E-Procurement Solution

If your business is a major consumer of various suppliers, perhaps it is you who can lead your whole supply chain into the world of e-procurement. This is not for the faint of heart, and will require considered financial investment. But, hey, if Wal-Mart could do it, why couldn't you?

Before you start looking into the cost of implementing a full scale EDI-INT system, then expecting your small suppliers to spend significant sums with little or no benefit to them, stop and consider smaller-scale supply chain automation. Perhaps you only have a single supplier. You may communicate via email already, but how about seeing if your inventory databases and purchasing systems could more closely communicate without human interactions. Examine your purchasing process, and identify potentials for automation. With a manageable expenditure you could realize a significant return on investment.

Summary

The world of business-to-business e-commerce may not be the overnight sensation that it once was, but it is slowly becoming a necessity to compete in today's marketplace. Any contemplation of entering the B2B world demands that you examine your own processes to discover where automation can reduce costs and potentially increase revenue. In the same manner that businesses tested the Internet waters with email and brochure-style websites, there may be free e-marketplaces within your sector that can be the first step on the road to true B2B e-commerce.

When continuing your investigations on the subject, be aware of the date of the material, as pre-2002 documents and websites may be nothing more than style and no substance. With informed decision-making, organizational commitment, business savvy, and forward thinking, you could reap the many benefits of B2B.

Resources

- B2Business.Net
<http://www.B2Business.net>

- The Business Link Business Service Centre
<http://www.canadabusiness.ca/alberta>
- Darwin: Executive Guides: E-Business
<http://guide.darwinmag.com/technology/ebusiness/>
- Ebiz.Enable: E-Commerce Marketplaces
http://strategis.ic.gc.ca/epic/internet/inee-ef.nsf/en/h_ee00210e.html
- Internet Engineering Task Force: Electronic Data Interchange-Internet Integration
<http://www.ietf.org/html.charters/ediint-charter.html>
- MERX Electronic Tendering Service
<http://www.merx.com>
- SourceCan
<http://www.sourcecan.com>

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This guide was originally prepared by the former Manitoba E-Future Centre

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