

EDI in China: Developing a strategy for B2B integration success



Executive summary

Multinational corporations sourcing products from China face profitability pressures as Chinese trading partners pass along rising costs resulting from inefficient logistics and supply chain processes. With the Chinese government promoting greater supply chain efficiency as a means of sustaining national competitiveness, now is the time for Western multinationals to proactively engage with Chinese manufacturers to develop cost-effective and mutually beneficial strategies and solutions to streamline business-to-business (B2B) commerce. Electronic data interchange (EDI) is a key enabling technology to drive this transformation.

Understanding the B2B marketplace in China — the world's manufacturing hub

Over the past two decades, the Chinese government has strongly promoted globalization as it strives to become a world leader in global trade. Its efforts have paid off. Economic reforms and membership in the World Trade Organization (WTO) have aided China's ascendance as a global manufacturing hub and a leading exporting country.

During this rise, small and medium enterprises (SMEs) have contributed more than half of the value of China's exports. About 96 percent of the more than 50 million enterprises in China were SMEs as of 2011, and that number is expected to grow 8 percent every year.¹ Despite their growing economic importance, Chinese SMEs typically have not invested heavily in IT, creating a significant gap in their technical sophistication compared to their Western counterparts. Contributing factors include:

- **Enterprise resource planning (ERP) adoption** is fragmented and slow as SMEs with limited IT budgets and staff typically use fit-for-use modules provided by local vendors.
- **Available labor in China** is often scarce for technologically skilled positions such as technology operations, management and integration.
- **Government regulation** hinders delivery of business-to-business (B2B) services over the web, with some B2B service providers jointly owned by the government and private industry. The restriction of data transmission within and outside of China creates additional challenges to B2B efficiency.

Taken together, these factors help explain why many Chinese companies are significantly less enabled for B2B and online commerce than their global trading partners. But that's about to change, as such sophisticated methods as EDI begin to permeate business processes in China, reducing the inefficiency of manual, paper-based processes.

Online commerce development in China is driving IT investment

Since 2008, the Chinese online commerce marketplace has grown an average of 20 percent a year. Business-to-consumer (B2C) transactions were the leading contributor, with sales numbers currently ten times greater than those of 2008. This B2C boom has advanced the online Chinese commerce marketplace in several ways:²

- **Greater acceptance:** In the past, many Chinese consumers had concerns about online shopping, such as the inability to assess product quality before buying, after-sale service, and payment security. Joint efforts by enterprises and the government have persuaded many Chinese consumers that online trading is convenient and economical.
- **B2B demand has improved:** Driven by the B2C marketplace, SMEs in China sold about USD500 billion worth of goods to B2B buyers in 2011, and the year-to-year growth rate is increasing.³
- **Competition on technology:** Recognizing the potential for competitive advantage, many Chinese enterprises are investing more in IT systems to optimize processes and streamline their supply chain.

How the B2B landscape in China is changing

China's role as the largest US exporter and major global exporter has been consistently growing.⁴ Prior to the 2008 global financial crisis, Chinese manufacturers had sufficient purchase orders from multinational companies (MNCs), so neither joint-venture companies nor local service providers had urgent reasons to focus on supply chain management and build a robust B2B infrastructure. Companies relied on manual processes, purposely overstocked items for buffering, relied on educated guessing for resource planning and required long lead times to respond to deviations from the initial orders.

Although MNCs understood the benefits of supply chain efficiency, they were unable to convince manufacturers to focus on supply chain reforms. These issues contributed to the high logistics costs Chinese companies face today. After 2008, major changes affected the Chinese marketplace:

- Purchase orders for export from MNCs dropped significantly because of the global financial crisis
- Labor regulation was refined, resulting in increased manufacturing costs
- The Chinese yuan, or renminbi, the official currency of the People's Republic of China, appreciated against the US dollar, further increasing manufacturing costs

As a result, many MNCs have taken the following actions:

- Continued to source products from different manufacturers with better quality at lower prices
- Focused on streamlining supply chain efficiency to lower fulfillment logistics costs
- Shifted some of their manufacturing operations to less-costly northwestern provinces in China or countries such as Cambodia and Vietnam
- Focused on product sales in the Chinese marketplace rather than just exporting to Western marketplaces

Chinese manufacturers are facing pressure from decreasing export volumes and increasing competition from other developing countries. To remain competitive, Chinese companies must keep their logistics costs low by establishing better supply chain visibility and real-time forecasting. Chinese companies are now more willing to work or comply with MNCs for better supply chain strategies and recognize that supply chain reform is integral to increased competitiveness.

The Chinese focus on information logistics

Supply chain reforms such as vendor managed inventory (VMI), just in time (JIT) and collaboration planning forecasting replenishment (CPFR) require the use of information logistics to deliver the right information to the right people or systems at the right time. EDI is a fundamental solution to increase the efficiency of information logistics, with capabilities to rapidly deliver information to the right people or processes. EDI helps minimize lead times and data errors, improve supply chain visibility and reduce costs through streamlined, harmonized business processes.

Information logistics has been so critical to supply chain management that the Chinese government has included it as one of the key initiatives in its 12th five-year plan.⁵ These five-year plans are lists of social and economic initiatives that the Chinese government provides as a guide for major companies and institutions to strategize and structure their respective goals. Key supply chain and information management initiatives include:

- Streamline supply chain efficiency, including B2B, business-to-government (B2G), B2C, B2G2B and B2B2C, with the help of government support
- Reduce the cost of import and export trade to sustain competitiveness
- Promote information logistics to be in sync with physical logistics

Official government support on supply chain management through the 12th five-year plan is making it easier to engage Chinese trading partners to conduct B2B integration and B2B trading as a foundation of supply chain reforms.

Proven approaches to B2B EDI in China

Chinese companies may claim that they have conducted B2B and EDI processes for many years, but they generally define EDI as meaning any information exchanged electronically. That could mean Internet-based web forms, EDI to fax, email, file transfer, ERP or order system application-to-application data exchange (not necessarily similar to the EDI standard formats, such as Accredited Standards Committee X12 [ASC X12] or United Nations/Electronic Data Interchange for Administration, Commerce and Transport [UN/EDIFACT]).

Traditionally, B2B and EDI implementations in China have been single directional or contain a simple business document flow (for example, purchase order from buyer to manufacturers). With more focus on streamlining the supply chain and MNCs as the “low-hanging fruit” for improvements, Chinese manufacturers and distributors are more willing to adopt sophisticated B2B and EDI solutions as information logistics (the foundation of supply chain reforms) and apply them to domestic and global markets.

Three key considerations for a successful B2B and EDI implementation include:

1. Establishing a versatile B2B and EDI solution
 - Addresses global standards such as ASC X12, UN/EDIFACT and GS1 XML
 - Addresses domestic standards by including government standards and Chinese language capabilities
 - Is easy to learn and user friendly
 - Provides flexibility to support enterprise best practices
 - Enables integration with an existing B2B or EDI solution
 - Handles multiple channels (for example, direct application-to-application EDI, EDI to fax, email and the web), multiple formats (for example, spreadsheets, PDFs, web forms and email) and multiple business processes (for example, process-driven rather than purely document-driven to tightly integrate the supply chain process with B2B business document flows)
2. Choosing a sophisticated solution provider
 - Extensive industry domain knowledge and experience in the Chinese marketplace
 - An understanding of how to work with both MNCs and Chinese companies to bridge communication gaps
 - Government endorsements (a licensed B2B or EDI provider in China)
 - Comprehensive and systematic implementation and follow-through capabilities
 - Onsite presence with the ability to provide local support and education, using the local language and cultural affinity
 - Availability of educational workshops to educate Chinese manufacturers on supply chain benefits and trading relationship benefits through information logistics implementation and B2B or EDI adoption
3. Focusing on business drivers
 - MNCs are responsible for providing dedicated resources, highlighting business benefits within the trading and fulfillment cycle, and considering the capabilities and benefits for their trading partners

A proven approach to helping solve B2B challenges in China and support B2B compliance is the hybrid hub-and-spoke model, which is structured to include multiple channels, formats and integration levels for different tiers of trading partners within the trading community in China. MNCs assume the role of the central hub, defining the role of B2B and EDI solutions, methods to measure and optimize the systems, and integration mechanisms with Chinese trading partners. Trading partners are typically categorized into three tiers—large, medium and small—with specific considerations for each.

Large trading partner considerations

Typically the top 20 percent of an enterprise's trading partners account for 80 percent of its total business volume.⁶ These trading partners can include MNC subsidiaries in China, joint-venture manufacturers or distributors, and other manufacturers or distributors. The hub enterprise would consider conducting application-to-application integration (such as ERP or order system integration) over direct, IP-based connectivity (such as EDI-Internet Integration [EDI-INT], Applicability Statement 2 [AS2] or Secure FTP) or a secure, value-added network. The hub should also consider integrating with logistics providers, warehouse providers and production factories for "plan to fulfill" and "order to sales" information logistics.

Medium trading partner considerations

In this tier, 60 percent of trading partners typically represent 19 percent of an enterprise's total business transactions.⁷ These trading partners are usually composed of local small to midsize manufacturers or distributors. MNC-driven hubs should consider providing electronic data interchange to these trading partners through an interactive, Internet-based web form integration. Interactive means a true collaboration with a comprehensive set of business documents that hubs require and real-time alerts for the partners. Trading partners gain the ability to manage business transaction flows along with visibility into key supply chain processes. Interactive web forms can be provided by the solution provider onsite at the hub's premises or through a value-added service provider as a B2B software-as-a-service (SaaS) integration solution.

Small trading partner considerations

For the small trading partner tier, the bottom 20 percent of trading partners typically represent 1 percent of an enterprise's total business transactions.⁸ These trading partners are typically small to very small manufacturers or distributors. Hub MNCs are keen to include this level of trading partners into their B2B strategy because of the cost per document they incur for manually processing documents with these partners. EDI to fax, EDI to PDF and EDI to spreadsheet form part of the small trading partner onboarding solution.

Why IBM for EDI in China?

EDI is an increasingly important tool for companies operating in China to improve efficiency and collaboration while helping address compliance and regulatory requirements. IBM solutions for EDI help companies more securely connect and build partner communities through our field-proven IBM Sterling B2B Cloud Services. Our on-demand services and managed solutions may be implemented rapidly at low startup costs and easily scaled to address growing business needs.

To meet the needs of multinational corporations doing business with Chinese trading partners, IBM partners with a reliable, local, Chinese government-approved network services vendor, IT Associates Corporation, a subsidiary of eCOM. A sponsoring MNC works with a single vendor, IBM, while its Chinese trading partners receive full EDI implementation, onboarding, training and support from eCOM, the most experienced provider of B2B services in China today.

About eCOM

This paper wouldn't have been possible without the insights into the Chinese marketplace provided by eCOM. A world-class provider of B2B e-commerce solutions and services, eCOM offers IBM Sterling B2B and managed file transfer solutions as well as supply chain and EDI consulting, development, implementation, onboarding and customer support services. It has been an advanced partner of IBM and Sterling Commerce for more than 15 years and is the sole business reseller for the IBM Sterling B2B Collaboration Network (also known as the SCN or IBM Sterling VAN) for China, Hong Kong, Macau, Australia and the Philippines.



For more information

To learn more about EDI and B2B solutions for the Chinese marketplace, contact your IBM sales representative or IBM Business Partner, or visit:

ibm.com/software/commerce/b2b/b2b-integration/cloud-services



© Copyright IBM Corporation 2013

IBM Corporation
Software Group
Route 100
Somers, NY 10589

Produced in the United States of America
January 2013

IBM, the IBM logo, and ibm.com trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the web at “Copyright and trademark information” at www.ibm.com/legal/copytrade.shtml.

Sterling Commerce is a trademark or registered trademark of IBM International Group B.V., an IBM Company.

This document is current as of the initial date of publication and may be changed by IBM at any time. Not all offerings are available in every country in which IBM operates.

THE INFORMATION IN THIS DOCUMENT IS PROVIDED “AS IS” WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OR CONDITION OF NON-INFRINGEMENT. IBM products are warranted according to the terms and conditions of the agreements under which they are provided.

The client is responsible for ensuring compliance with laws and regulations applicable to it. IBM does not provide legal advice or represent or warrant that its services or products will ensure that the client is in compliance with any law or regulation.

- 1 iResearch Consulting Group, “China SME B2B E-Commerce Sector Research: 2011-2012,” April 26, 2012, www.iresearchchina.com/reports/4138.html
- 2 IBM, “IBM Market Insights: B2B online study and future outlook—China,” November 9, 2012.
- 3 Ibid.
- 4 U.S. Census Bureau, “2012: U.S. trade in goods with China,” September 2012, www.census.gov/foreign-trade/balance/c5700.html
- 5 China government, “National economy and social development in the 12th five-year plan outline, chapters 9 and 13,” 2011, www.gov.cn/2011lh/content_1825838_4.htm
- 6 Based on eCOM estimates.
- 7 Ibid.
- 8 Ibid.



Please Recycle