

# Advanced B2B Procurement on the Internet

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Electronic Commerce (EC) is one of the biggest trends on the Internet, and many companies have announced that they will focus on EC business. Also, there are now many HUB sites for B2B (business to business) trading. Although companies can get much benefit from installing and using the latest IT, they also need to know the type of EC that suits them best to stay competitive with other companies. This paper describes various types of EC and advanced B2B procurement styles on the Internet.

## 1. Introduction

The Internet is a social, global infrastructure available to all companies. Most companies now recognize the power of the Internet in B2B (business to business) activities and are trying to use it in their procurement processes (**Figure 1**).

This figure shows the following trends.

- 1) The total amount of electronic commerce (EC) comes from B2B activities rather than B2C (business to consumer) activities. The B2B EC style can be defined as shown in **Figure 2**.

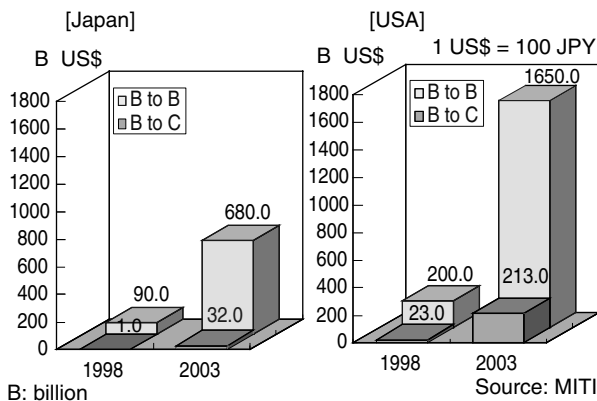


Figure 1  
Electronic commerce on the Internet.

- 2) EC trading on the Internet by smaller companies as well as big companies is now increasing dramatically, and there is little doubt about the power of the Internet for business use.
- 3) The total amount of EC in the U.S. is more than double the amount in Japan. Generally, companies worldwide can gain advantage by catching up with U.S. companies.

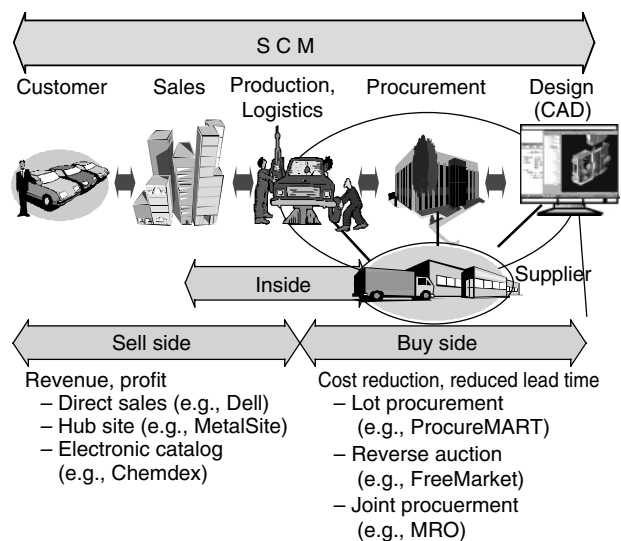


Figure 2  
B2B e-commerce.

Many B2B EC systems are based on supply chain management, and provided that hierarchical relations between companies can be ignored, the best tool for achieving a complete SCM system is the Internet.

However, it is not easy to establish an SCM chain that completely integrates all participating companies. In this paper, I will focus on the buying side, (Figure 2) of B2B e-commerce rather than the selling side and describe how many companies are trying to build a procurement strategy on the Internet.

## **2. Changes in the business world**

The Internet world is growing very quickly and is bringing major changes. However, the business processes of many companies are lagging behind because of cultural reasons, especially in Japan. These major changes are occurring in the following three areas.

### **1) Profit structure and procurement style**

The profit structure from a manufacturer to the final consumer is called the "value chain." The Internet can shorten this chain because it allows direct connections between the members of a business chain with no unnecessary intermediaries. Because of this characteristic, the Internet is bringing changes to profit structures and procurement styles that companies cannot afford to ignore.

### **2) Business opportunity**

In the traditional business style, it is difficult for newcomers to make a profit. But in the Internet business environment, it is easier to find new business opportunities because of the enormous amount of valuable information the Internet makes available. An example of a new Internet business opportunity is the hub site, which is a type of electronic trade exchange. When somebody wants to buy something, there must be somebody willing and able to sell it, and the traditional way to find a trading partner is by using the phone, human connections, etc.

Hub sites, however, make it much easier to find trading partners because they bring a very large number of companies together in a single exchange and enable you to make contact at Internet speed.

### **3) Relationships with customers**

This is the one of the most important points of Internet business. Internet technology makes it easy to communicate with customers and build individual relationships with them. However, because customers can choose between a wider range of companies, companies must ensure that they provide customer satisfaction (CS), for example, by ensuring that their response time, friendliness, and product information are good. The concept of CS must now also be applied to B2B situations.

Using the Internet, a company can gather necessary information from many places. To sell a product to a company, you need to describe how it differs from competing products. Top management needs to understand that the situation is the same in B2C. That is, companies purchase products directly from producers and not through a wholesaler. This situation is called "mega-competition."

## **3. Change of procurement style**

Having discussed the change in business style due to the Internet, I will now focus on the change of procurement style. Recently many companies have launched their own hub sites. The recent trends are to merge the hub sites of different industries (**Figure 3**). This trend could lead to entire SCM systems that include the sell side and buy side.

Traditionally, procurement is based on point-to-point access with trading companies. Hub sites on the Internet enable us to change this business process if required. They enable us to easily find new trading partners and reduce the amount of time spent in negotiations on the phone.

There are two phases in the procurement

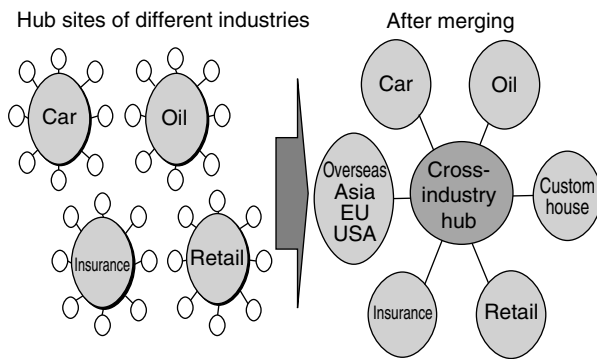


Figure 3  
Merging of HUB sites of different industries.

process. In the first phase, the buyer finds suppliers and negotiates the unit prices and other conditions. Normally, this phase is the most important one in the procurement department, so the staff of that department should make it their main activity. A hub site could be applied in this phase to help companies find better suppliers so they can make better and lower priced products. An open market or e-market could be used for this purpose.

The second phase of procurement starts once a supplier and the unit price have been fixed and involves sending orders to the supplier. This phase is completed using electronic transactions such as EDI. To reduce operational cost, this phase can also be done using the Internet rather than a leased line or traditional VAN system.

#### 4. Types of e-market for the first phase

To support the first phase of the procurement process, many e-market sites have been launched on the Internet. These e-markets can be categorized as shown in **Figure 4**.

##### 1) Price negotiation

This type of e-market is designed for price negotiations between many sellers and many buyers. It could be in the form of a bidding market and can also be called a "Commodity market."

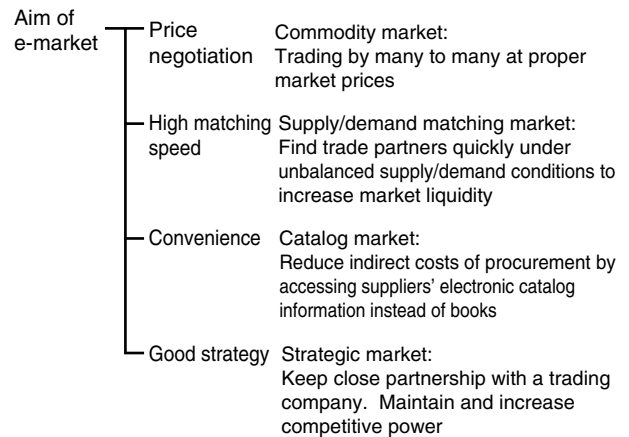


Figure 4  
E-market types.

##### 2) High matching speed

This type of e-market is designed to match sellers and buyers. This type of market is suitable for surplus goods because it is not so easy to match supply and demand of surplus goods using traditional business methods such as the phone and fax. This type of market can also be called a "Supply/Demand matching market."

##### 3) Convenience

This type of market is designed to reduce the indirect costs of the procurement process and is suitable for MRO (Maintenance, Repair, and Operation) products, which are marketed mainly through electronic catalogs. In this type of market, procurement staff make an order by referencing digital data instead of searching through paper catalogs. This type of market can also be called a "Catalog market."

##### 4) Good strategy

This type of market is designed to increase the competitive power of companies. One of the most important tasks of top management is to decide how to participate in this type of e-market. This type of market can be a powerful tool to create close relationships between buyers and sellers. This type of market can also be called a "Strategic market."

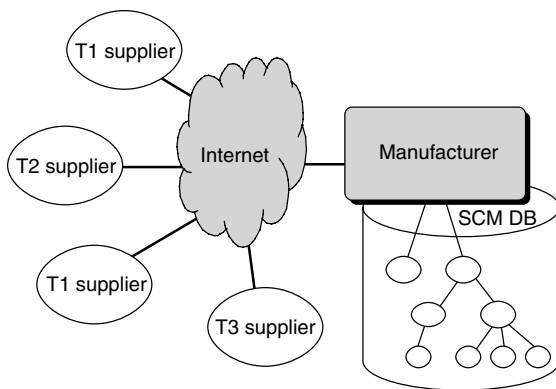


Figure 5  
Getting SCM information.

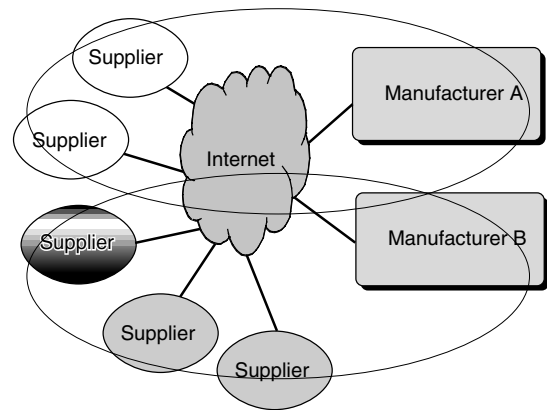


Figure 6  
Joint procurement.

## 5. Strategic procurement on the Internet

In the previous chapter, I described the strategic type of e-market. In fact, many companies seek to establish good relationships with their business partners via e-markets and thereby establish what could be called an “enclosure of partners;” that is, the establishment of strong relationships with business partners. In this chapter, I will describe two types of strategic procurement styles from the point of view of a manufacturer that assembles products and then sells them.

### 1) Getting suppliers' information

A supply chain enables a manufacturer to reduce its lead-time, optimize its logistics, and take other measures to make it competitive. To get the required SCM information from suppliers, the Internet could be the best tool for a manufacturer because it is easy to build an information system and sellers can access it using just a Web browser. In this case, a manufacturer might need to provide information to suppliers such as the weekly production plans for its products. Once a manufacturer has built a database for its entire supply chain, management can make decisions to provide the best products to the best place at the best time (**Figure 5**).

### 2) Joint procurement

Recently, many industry leaders have estab-

lished a joint procurement process on the Internet (**Figure 6**) to achieve two major aims: cheaper prices and the sharing of suppliers' information.

#### Cheaper prices

Generally, suppliers can reduce their prices if buyers purchase a product in bulk, and bulk purchasers, therefore, usually enjoy an increased buying power. This approach has been taken with commodity goods as described in the previous section, even for key parts used by a manufacturer, which indicates that companies can change if their top management understands the power of the Internet.

#### Sharing of suppliers' information

Sharing suppliers' information can enable a manufacturer to make quick, confident decisions about a new supplier. For example, parts produced by a supplier of manufacturer A could be immediately authorized for use by manufacturer B because of the good relationship between the two manufacturers.

It is very important in business to quickly establish good procurement conditions with suppliers using the Internet. In most cases, establishing confidence in a new supplier takes time, so procurement staffs are reluctant to increase the number of their suppliers.

## 6. Advanced procurement on the Internet

In the previous chapter, I described the trend in Internet procurement as moving towards a more open and strategic approach. However, conflicts are still causing inconsistencies for manufacturers. The increased number of suppliers on the Internet has not led to stronger buying power in bulk purchases, and open bidding has not led to stronger relationships with suppliers. How can these problems be solved?

The advanced procurement style on the Internet is to use the different types of e-markets according to the category of parts to be procured. Almost all manufacturers buy both common parts and strategic parts, which are core parts that make a manufacturer's products unique among other manufactures.

Therefore, these two types of parts must be procured using different methods of Internet procurement (**Figure 7**).

### Strategic parts

A company's competitive power, to a large extent, comes from the strategic parts and technologies that its products incorporate. If competitors also obtain these parts and technologies, they will no longer be strategic and the company could lose its competitive advantage. It is therefore essential that companies maintain very close relationships with their strategic suppliers so that they will not be tempted to find other buyers. Keeping these close relationships involves, among other things, having accurate up-to-date SCM management data about procurement from those suppliers.

Furthermore, due to the power of networks, a manufacturer can develop a strategic part design diagram, quality requirements, and so on in a very short time. By collaborating with suppliers in this way, companies can continue to increase their competitive power.

### Common parts

Common parts can be purchased jointly with other companies, for example, other companies in the same industry. This is the area of joint pro-

curement described in the previous chapter. Sometimes, details of common parts, for example, resistors and transistors, are printed in a catalog by an industrial organization.

## 7. An example of cooperative procurement

In February 2000, GM, Ford, and Chrysler released details about a cooperative procurement site called "COVISINT." Based on various reports about COVISINT, I believe it is one of the most advanced procurement sites on the Internet. GM is running a TradeXchange for strategic procurement from suppliers, and a new open site will be opened in cooperation with other motor companies for cooperative procurement (**Figure 8**). Also, unlike other open market systems, COVISINT will

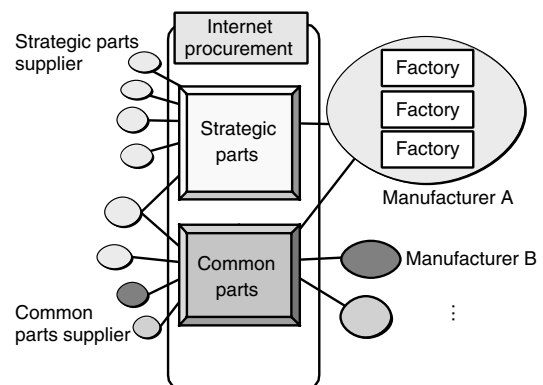


Figure 7  
Advanced procurement style.

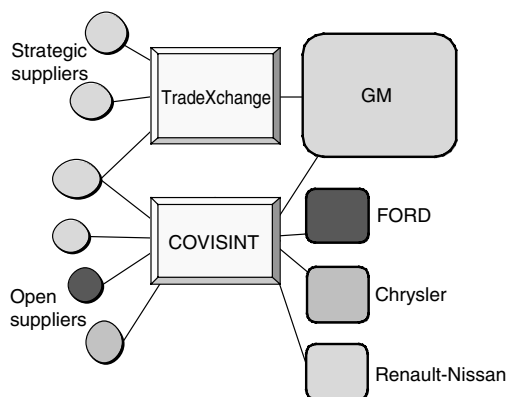


Figure 8  
Example in automobile industry.

have a collaborative buyer/supplier design feature.

## **8. Conclusion**

The B2B style in the Internet world is changing very rapidly due to the increasing speed of management decision making and changing market requirements. The Internet is a powerful tool to get a business advantage if top management can understand how to use it. Procurement styles should be optimized to suit each individual

company.

Procurement will rapidly move more and more to the Internet world, and companies must use a mixture of EC styles, for example, strategic procurement and non-strategic procurement. Internet procurement enables companies to produce products in small lots and achieve a very short development time. Only companies that can cope with this situation will survive in the global mega-competition.



**Kazuhiro Hosoi** received the B.S. and M.S. degrees in Applied Mathematics and Physics from Kyoto University, Kyoto, Japan in 1981 and 1983, respectively. He joined Fujitsu Ltd., Tokyo, Japan in 1983 and has been working in the Systems Engineering department. Recently, he has been working as an electronic commerce management consultant in the Consulting Division, developing Internet business solutions.