

## Electronic commerce: Three emerging strategies

**Kenneth Berryman,  
Lorraine Harrington,  
Dennis Layton-Rodin,  
and Vincent Rerolle**

**E**lectronic commerce is fulfilling its early promise for business-to-business trade. Marketplaces that connect buyers and sellers are up and running in many product categories, and are creating value by making trading more efficient. The experience of early participants suggests that an electronic marketplace can capture savings of 10 to 20 percent on sales and deliver lower prices for buyers.\*

The rewards are split three ways. Sellers can reach more customers, gather better information about them, target them more effectively, and serve them better. The marketplaces also create value for the third-party intermediaries that organize some of them. Intermediaries can earn transaction commissions and fees for value-added services such as information capture and analysis, order and payment processing, the integration of buyers' and sellers' IT systems, and consulting services. The best rewards go to buyers, however. Able to compare products and prices easily, they will compel suppliers to compete more fiercely than ever.

The potential value at stake is enormous. Take the US maintenance, repair, and operations (MRO) products business – including items ranging from brooms and light bulbs to simple motors – which is worth \$300 billion. If the electronic marketplaces rapidly emerging in the industry came to harness even 10 to 20 percent of these sales, and reaped the same process cost and price savings as the earliest electronic marketplaces – that is, 10 to 20 percent – the industry could see value creation worth \$3 to \$12 billion. Similarly, in the combined PC and low-end networking products industry, \$2.5 to \$5 billion is at stake.

A battle between buyers, sellers, and intermediaries to capture this value seems inevitable; furthermore, the conditions for winning it are already evident. It is therefore time for businesses to consider how they might participate in electronic marketplaces to create value for themselves – and prevent it shifting to competitors.

### Three models

There are three types of marketplace: those controlled by sellers, those controlled by buyers, and those controlled by neutral third parties (Exhibit 1).

**Marketplaces controlled by sellers** are usually set up by a single vendor seeking many buyers. Its aim is to create or retain value and market power in any transaction. The corporate Web site set up by Cisco Systems, for example,

\* Estimate based on McKinsey case studies and interviews of players from a mix of industries.

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## Types of electronic marketplace

<b>Seller controlled</b>	Information-only vendor Web sites Vendor Web sites with online ordering
<b>Buyer controlled</b>	Web site procurement posting Purchasing agents Purchasing aggregators
<b>Neutral</b>	Industry/product-specific search engines Information marts (structured access to vendor and product information) Business malls (multiple vendor store fronts) Auction spaces

enables buyers to configure their own routers, check lead times, prices, and order and shipping status, and confer with technical experts. The site generates \$3 billion in sales a year – about 40 percent of the company's total.

In addition, by publishing technical documents on line and giving customers access to order information, Cisco saves \$270 million annually in printing expenses, order and configuration errors, and telephone-based technical support. Its online market may also increase customer loyalty by speeding up ordering and order status checking.

**Buyer-controlled marketplaces** are set up by or for one or more buyers with the aim of shifting power and value in the marketplace to the buyer's side. Many involve an intermediary, but some particularly strong buyers have developed marketplaces for themselves. Japan Airlines, a big purchaser of in-flight consumable items such as plastic rubbish bags and disposable cups, posts procurement notices on line in order to find the most attractive suppliers.

Buyers' intermediaries act as agents or aggregators. FreeMarkets Online, a small company that helps traditional industrial firms locate a pool of competitive suppliers for semi-complex assembly parts such as plastic injection moldings and iron castings, is an example of an agent. First, it offers an offline consulting service to refine the buyer's specifications and screen potential suppliers. When the best contenders have been identified, it sets up and conducts an online bidding session, which can last for up to three hours. The service offers buyers average price savings of 10 to 25 percent, and helps them buy more effectively because suppliers submit bids that better match their needs.

Aggregators take a different approach, combining the purchases of several companies to increase their collective buying power. TPN Register, a joint venture between GE Information Services and Thomas Publishing, grew

out of an initiative within GE to consolidate purchases, first within a single division (GE Lighting), then across all divisions. Finally, it expanded beyond GE to include other leading corporations in a buying consortium. The results have been a reduction in order processing time (from a week to one day for GE Lighting) and processing costs, and 10 to 15 percent lower prices. Forrester Research estimated that from its inception in January 1997 through year end, TPN Register's purchases would reach \$1 billion.\* The marketplace expects to handle purchases worth \$15 billion by the end of 1998.

**Neutral marketplaces** are set up by third-party intermediaries to match many buyers to many sellers. One such intermediary is FastParts, which operates an anonymous spot market for the trading of overstocked electronic components. It receives notice of available stock from sellers, then matches buyers to sellers at an online auction. All parties benefit. Sellers get higher prices than they would through a traditional broker; buyers get market-driven prices that are lower than brokers', plus guaranteed quality because FastParts inspects the products; and FastParts earns up to 8 percent commission. The losers are the traditional brokers.

Neutral electronic marketplaces do not necessarily eliminate traditional intermediaries, however. Digital Markets established itself as an electronic intermediary for the trading of electronic components. Its aim was not to change the relationship between buyers and sellers, but to make their transactions more efficient. Its online marketplace routes buyers' orders to their preferred distributors after checking for order entry errors and suggesting substitute products. The intermediary then notifies the buyer of availability and passes on delivery and pricing information from the seller. Digital Markets also enables buyers to confirm and track their orders. For this service, it charges a transaction fee to sellers when an order is placed. Buyers pay nothing.

#### **Choosing a marketplace model**

How should companies decide which electronic marketplace model suits them best or, indeed, evaluate when or whether to participate in a market? The answers to the following four questions will help them determine an appropriate strategy.

##### *Are there transaction savings or benefits to be realized?*

Cost reduction through greater process efficiency is one of the main attractions of the electronic marketplace. Companies should therefore conduct a detailed analysis of their selling and procurement processes to discover how much can be saved and where. In early electronic marketplaces, most companies have focused on reducing

\* Blane Erwin and Stan Dolberg, "A conversation with TPN Register, 9/30/97," *Business Trade and Technology*, Volume 1, Number 6, Forrester Research, Inc.

the cost of publishing and distributing printed documents by making promotional materials available on Web sites. DEC estimates that putting its promotional materials on line is saving \$4.5 million annually in catalog and mailing costs.

Yet there are many other steps in a typical selling and procurement system that can be streamlined. From product development to account information management on the selling side, and from assembling manufacturing specifications to tracking vendors' performance on the procurement side, electronic marketplaces can have a measurable impact.

How much of an impact depends on how lean the buying and selling operation already is. At Dell, many process costs had already been taken out via direct sales and by earlier efforts to automate and streamline the supply chain. Web selling has secured additional savings, but they have been small compared with what most companies could expect – including other competitors in the PC business.

A second type of transaction benefit is improved reach. Hartford Computers has clearly benefited in this way, quadrupling sales by reaching more divisions of GE via TPN Register.

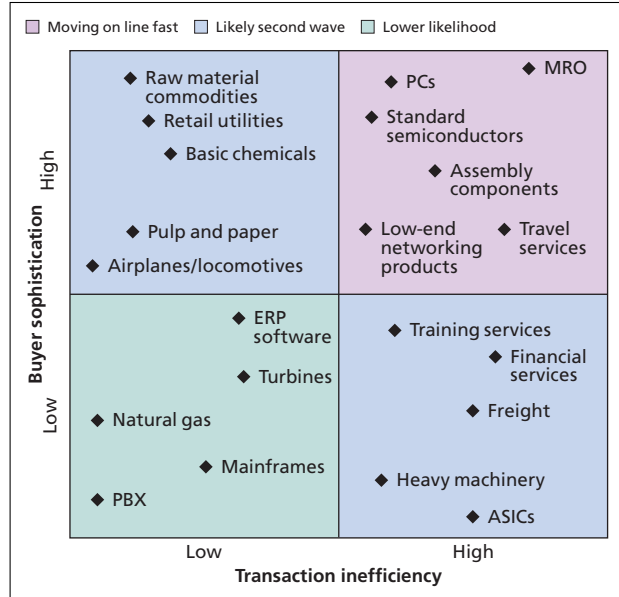
A third advantage accrues for buyers: namely, the reduction in prices that comes of increased or more transparent competition.

*Is an electronic market for our product developing quickly?*

The higher the possible savings or benefits, the more enthusiastic competitors are likely to be about an electronic marketplace. But these are not the only concerns. If electronic markets are developing quickly for a company's key product categories, then competitive dynamics might drive it to establish an early presence whether it is a buyer or a seller.

The speed with which an electronic market develops for any product will depend on two factors: the inefficiency of current transactions and the sophistication of buyers (Exhibit 2). Transaction inefficiencies can arise from poor information flow, complex or multi-tiered distribution channels, and fragmented supplier and customer bases, among other factors. Customers' sophistication is measured by their ability to define clear product specifications, their understanding of the differences between vendors, and how comfortable they are about buying a product without seeing it.

Opportunities for electronic marketplaces



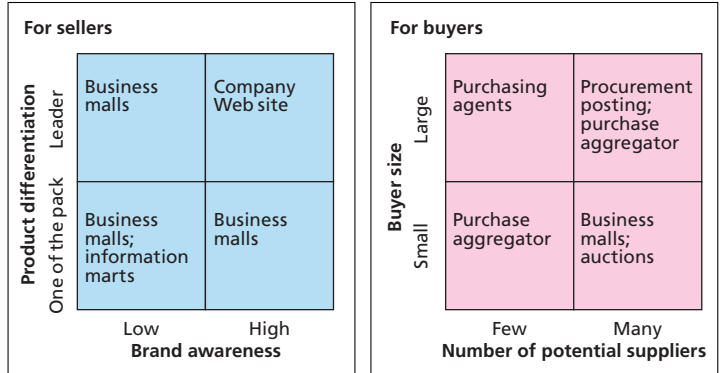
Product categories with inefficient transaction processes and sophisticated customers, such as MRO products, PCs, travel services, and low-end networking products, will probably move quickly to electronic marketplaces. Dell, for example, is already seeing the emergence of several electronic marketplaces for PCs, such as pcOrder.com, ECadvantage, and ONSALE. Because the company moved quickly to develop its own online sales site, it should at least slow the pace at which customers are attracted to other marketplaces, and hence defer (perhaps indefinitely) the erosion of its market share and price advantage.

Buyers in fast-moving product categories should use electronic marketplaces to save money on the goods they buy, while sellers should seize the opportunity to reach new customers and delay the development of a buyer-controlled marketplace. Third parties should act promptly to attract a critical mass of buyers and sellers to their own marketplace.

*Do we have substantial market share or buying power?*

The answer to this question will determine which marketplace model will be most effective (Exhibit 3). If a product stands out from competitors and is strongly branded, its maker should consider selling from its own Web site. Cisco is the clear market leader in routers, for example, and can therefore depend on its brand alone to draw customers to its site. The seller of a product with a weaker market position, on the other hand, should probably try to enter several marketplaces in order to broaden its reach.

### Choosing the right marketplace



Buyers' competitive considerations are slightly different. Here the key variables are the size of procurement expenditure by product, and the fragmentation of the supplier base. Large buyers in product categories with legions of suppliers will probably choose to set up their own procurement site, or use a purchase aggregator to increase their buying power even more. Aggregators also make good sense for most small buyers. If none exists, small buyers with a large number of potential suppliers should use business malls (multiple vendor storefronts) to access suppliers easily, or preferably find auctions where intense competition between suppliers might result in lower prices.

*Would a neutral intermediary be beneficial?*

From a buyer's or seller's point of view, there are several reasons why marketplaces run by a neutral intermediary might be beneficial.

The first is the advantage of scale in transaction processing. An electronic marketplace that sells nothing but caviar, say, may have insufficient volume to achieve scale in its back-office organization. But a marketplace that sells all kinds of gourmet food could be much more efficient. Similarly, a marketplace able to use the same technology to set up markets in different products would probably have a sizable cost advantage over marketplaces tied to single products or industries. The advantages of scale are therefore likely to drive the emergence of third-party, neutral marketplaces that not only bring buyers and sellers together, but can act as service bureaus, providing facilities such as customer data analysis, payment processing, and fulfillment/logistics.

A second factor is the value of the information acquired during buying and selling. Here, the benefits will be enjoyed

by the intermediary. A neutral third party can accumulate information about buying patterns that can be analyzed and sold to sellers to help them improve their marketing. This is unlikely to happen in a buyer- or seller-controlled marketplace, as the controlling party has little incentive to pass information on.

A third reason is anonymity. Companies' concerns about giving competitors access to sensitive information through their Web sites are allayed in a neutral market in which participants' identities are protected. Much of FastParts' success is based on the value of this anonymity to electronic component manufacturers, which do not want to reveal details of their production levels or excess capacity. In product markets where anonymity is important, buyers and sellers alike will flock to neutral marketplaces.

Finally, neutral intermediaries can be helpful because they understand how Internet marketplaces operate. This is a new channel that demands specific skills and experience. Savvy intermediaries can help market participants move up the learning curve quickly.

#### **Rules for winning**

The development of electronic marketplaces is inevitable in many if not most industries. It will be driven by the release of value through transaction savings and the shift of power to buyers.

For buyers, the strategic imperative is clear. They have little to lose and much to gain. They could, however, be in danger of falling captive to a seller-controlled marketplace capable of analyzing their buying patterns to extract additional economic surplus. Buyers should therefore organize a buyer-controlled marketplace as quickly as possible.

The dynamics of electronic marketplaces also create clear opportunities for third-party intermediaries, which can create value by virtue of their neutrality. Their strategy will be guided by the answers to the same four questions that buyers and sellers must ask. They need to ascertain where transaction savings can best be realized in order to know how to integrate their service with buyers' and sellers' sales processes, and so offer most value; they must pick industries that are early targets for electronic marketplaces; they should avoid industries where sellers or buyers are particularly powerful; and they should consider areas where there is value in anonymity or in the information derived from transactions.

Sellers are the most vulnerable participants, because they will increasingly have to compete with other vendors in a transparent environment. Unless a seller stands to gain substantially from increased reach or reduced transaction costs, its strategy must be to attempt to coopt or prevent the

formation of buyer-controlled markets capable of driving down margins to the lowest-cost producer. This can be done by quickly setting up seller-controlled marketplaces.

All participants may have to reexamine conventional assumptions about competition. A seller such as Dell could find that the right strategy is to open up its Web site to competitors' products – surrendering some sales in order to retain control over the marketplace. A neutral party will probably discover that it cannot merely organize and operate the marketplace; instead, it must quickly integrate into buyers' and sellers' transactions and systems to enable full process savings and capture valuable information. Finally, buyers may find that they should cooperate with unfamiliar players (for example, purchasers of the same product in a different industry) to maximize their gains, pooling purchases, say, to exert as much control as possible over suppliers.

The dynamics and rapid growth of electronic marketplaces are forcing businesses to choose their strategies now. Electronic business-to-business commerce is not simply a question of automating existing channels and processes. It is a whole new way of doing business.