

## Summer 2000 Newsletter

# Construction eCommerce—Hype and Reality

Recently there has been a lot of hype about eCommerce for construction. Many people are confused by all the new construction eCommerce portal websites. What are they offering? How are we going to benefit? How are they going to make a profit? How much is it going to cost us?

Following is my perspective as a long term construction product rep and now as an Internet developer. This newsletter advocates a more measured approach to eCommerce than is typical and presents realistic and achievable uses of the Internet to reduce your cost of communications and to increase your sales and profits.

I spoke about this topic at the CSI Product Rep Academy in San Diego in March 2000. At that point I was not optimistic about eCommerce in commercial construction due to four key factors in this industry:

1. the value of trusted relationships during the construction process,
2. the complexity of the commercial construction product distribution system (as compared to the do-it-yourself building market or books and CDs),
3. the techniques methods planned by most eCommerce portals were not realistic methods to support existing relationships. These techniques were in two general categories: auctions – like eBAY for consumers and RFQs (Requests for Quotation) to connect the parties making the materials purchase.
4. As the manufacturer you could lose control of the sales process and could lose the brand identity you have worked to develop.

Architects may purchase some materials, for example furniture, but seldom do architects purchase the wood, steel and concrete used in the building. Some eCommerce portals incorrectly assumed that architects and engineers and general contractors purchased all the materials.

**Subcontractors buy most of the materials on a larger construction project.** Once this is understood, the construction supply chain becomes even more complex with many more potential clients than originally envisioned by the eCommerce portal developers, especially for large commercial construction projects.

Further complicating the portal's business plan, most products used in commercial construction projects are much more than just the physical material installed on the project. A "specified product" typically includes the design services starting with the architect and engineer and even subcontractors, continuing to quotations during bidding, submittal preparation, shipping, and ending with field problem resolution. On larger projects, the time line is often 18-36+ months from start of design assistance during working drawings to sale of materials, installation and acceptance of the materials. Field problem resolution can be 10 or even 20 years later. Existing distribution channels frequently provide some of the required problem resolution services as part of their ongoing relationship with the manufacturer.

When I ask marketers at eCommerce portals how their company will earn their money, they generally cannot provide specific answers. They may stress the importance of their online project management systems, but the charges to use these systems will never generate the revenues the portal needs to justify a staff of 200 people.

When I ask the marketers at portals why a manufacturer should respond to the auctions and RFQs themselves and thus compete with their existing distributors (channel conflict), some do not understand the concept of channel conflict and the substantial negative impact it is likely to have on current sales and distribution systems. Going around existing channels could destroy a business if current distributors switched suppliers due to you making direct sales in their territory through the Internet without compensating them.

Since the March Product Rep Academy, there have been several significant changes in the eCommerce business environment. NASDAQ stock prices dropped significantly and venture capital funding for eCommerce portals (both B2C and B2B) is being restricted or cut off. Investors' expectations have become more rational and eCommerce portals are now expected to make a profit or to be on a path toward profitability. Several major

consumer Internet portals have failed or significantly changed strategy. Even Amazon is rumored to be running out of cash by Christmas 2000.

Given these factors and expectations, I believe that most of the eCommerce construction portals are not going to be successful as structured today. These portals will need to figure out how to increase sales for manufacturers and to reduce the cost of completing the transaction and then how to generate their own revenues. There are going to be ways to use the Internet to reduce costs and increase sales, but probably not the ones currently proposed and under development. There will be a considerable shakeout and learning process before this is completed.

Many construction portals do not appear to understand the fundamentals of how products are specified, purchased and distributed on larger construction projects. Their online information fails to address that the complete design, bid, value engineering and purchase process is in discrete steps with multiple influences over an 18-36+ month time, not done in one quick step on the Internet. If the product was not specified or approved as a substitution shortly after bid time, auctions and RFQs are unlikely to persuade the architect to accept a last minute substitution for products already designed, specified and approved for the project.

I can safely predict that the 200+ construction portals will go through several natural consolidations, probably ending up with only 5 or 10 survivors, certainly no more than 2-3 portals in each type of service, probably one per region. I can also predict major changes in the offerings and solutions as the business plans come closer to discovering how to make money for their eCommerce portal.

**Let's look at some of the details.** It has been estimated that 600 BILLION dollars are spent for construction materials each year. The venture capitalists have viewed the construction market as a potential source of huge revenues from transaction fees from a highly fragmented market they believe is "ripe" for consolidation—**by them!**

None of the current construction eCommerce portals have gone public, so financial info can only be derived from press releases, other publicly available data and estimates of internal costs.

It has been estimated that \$2.5 BILLION has been invested in 200+ construction-related Internet portals. Several major portals (ie, Buzzsaw, eBricks and Bidcom) already have 100-200 employees. This implies that their monthly operating cost is \$1-2 million (salaries, facilities and expenses). None of these portals have yet to earn significant revenues. This excess of spending over income is referred to as a "burn rate."

If a portal has \$40 million in venture capital funding, and a \$2 million burn rate, the portal has a 20-month horizon until it crashes, is purchased or figures out a strategy for making money. The primary job of the organization's CEO is to convince enough investors and users that their portal is #1 and will succeed. Only in this way will the portal get additional funding and continue to search for the methods and procedures to satisfy their potential customers, justify the investment and produce the required revenues.

**Revenue models** are a description of how a business will make a profit and pay back its investment. Revenue models are a combination of what you get paid for doing and your cost structure. Most Internet revenue models are based on one or more of these: advertising revenues (such as *New York Times* and 4specs.com), subscription fees (such as the *Wall Street Journal*) and transaction fees from materials sold through their portal.

The revenues required to support a staff of 200 at these portals are not going to come from banner advertising or from fees paid to provide project management systems. These revenues are going to come from transaction fees charged to buy and sell **your** materials using the portal's services. Most of the portal's proposals necessarily involve circumventing existing distribution channels as a way to reduce costs. These portals do recognize that transaction fees within your existing channels is not viable.

There is a fundamental and substantial resistance that must be anticipated with any broad based transaction fee program. It is one thing to pay a 2% (or even 5%) fee when making first contact with a new supplier or buyer, but a 2% fee adds up quickly when applied to repeated transactions unless there are additional services provided.

As an example, a distributor purchasing \$20 million a year in products (not a very large distributor) could end up paying \$400,000 in transaction fees for his purchases above and beyond his normal costs. Then, there would be a second transaction fee to sell these same materials to his customers, under programs proposed by many portals.

Given the ease and low cost of developing Internet solutions, \$400,000 would be a powerful incentive for this company to work around the eCommerce portals and to develop their own alternative systems to avoid repetitive fees.

Several portals already recognize the need to provide long-term services to facilitate the purchase and payment of products—to provide reasons to pay continuing transaction fees. Yet these new mechanisms are generally not well defined and tested, much less widely adopted.

Existing relationships currently provide credit and financing as well as the trust necessary to buy and sell a large volume of materials with delivery and final pricing in the distant future. In my opinion portals need to enhance these relationships rather than attempting to replace them.

It is difficult to envision a rapid shift to eCommerce when many companies have had difficulty in making their own website more than a simple brochure. Unless there are significant advantages to all parties—such as cost savings of 5-10%, local sales support, local architectural support, local delivery, etc.—eCommerce through portals is going to take a long time to become commonplace, if ever.

Since the NASDAQ downswing in March, many newspaper and magazine articles have been written about the need for eCommerce portals to be profitable. The eCommerce objective is not to force profits down, but to reduce the costs of making, distributing and selling the products. These savings will be found primarily by improving communications and by making the transactions simpler to complete. A manufacturer's own eCommerce website need only reduce communication costs and need not be a profitable center in the short term.

#### **Our proposals:**

Besides the steps outlined on the next section, most manufacturers need to develop their own websites into a useful tool for architects and specifiers. This is one way to reduce the cost of communications. Redesign your product binder so it costs less to produce and distribute by placing most of the information on your website. 4specs.com has made specific recommendations on how to make product websites more useful in the WebFormat™ document. You can find a draft copy on the home page of [www.4specs.com](http://www.4specs.com).

We see 3 basic channel models that will need to be incorporated into eCommerce over the next 5 years:

**1. Manufacturer direct to sub-contractor.** This type of sale is going to be automated using the Internet by manufacturers improving order processing for the subcontractor. It is very difficult to justify an additional transaction fee when the sub-contractor and manufacturer already have a direct relationship.

**2. Manufacturer to distributor.** Again, this will probably be accomplished with an automated online ordering system for the distributor to buy from the manufacturer.

**3. Distributor to subcontractor.** This channel is more complex, and may ultimately be best suited to outside portals that enable the distributor to sell online to local customers. But, these sales are generally smaller—say \$1-5,000 average and involve smaller companies (say \$2-40 million in gross sales per year) doing the buying and

selling. The distributors have many different accounting and inventory computer programs that need to become Internet capable. The portals that can connect the distributor to the subcontractor, and provide enough services to justify a long-term transaction fee or subscription will be the survivors.

**Here are the steps you can take to use the Internet in your business,** starting today, on a low budget. The goal is to reduce costs to everyone's advantage, without necessarily attempting a **complete** eCommerce solution.

**1. Most orders are placed today by FAX or phone.** Using a **simple form on the website**, the subcontractor or distributor places the order. As the first step, this form simply forwards the information as an email to the order desk. This eliminates typographical mistakes. This type of system is easy to implement. This may be all that a smaller manufacturer or distributor implements over the **next 5 years!**

**2. Add simple transaction processing** to verify the entered items, with confirmation of the accepted order emailed back to the buyer. This online process can be more complex than expected due to differential pricing and the need to offer last minute price concessions to close an order against competition. This is only one reason why a sales rep may still be needed and involved to close the sale.

**3. Provide an online order tracking system,** especially for custom products with a long lead time—like FedEx. This will involve a web interface to the manufacturer's or distributors inventory and production scheduling systems, over a secure connection.

**4. Integrate the online order system** with your inventory, pricing and invoicing systems. Most of the high-powered Internet systems (such as Wells Fargo and Southwest Airlines) are a web interface to their mainframe computers for financial or inventory (seat management) systems. You can develop a web interface to your accounting and order processing computer systems. This is the most difficult step and will be expensive. Perhaps the intermediate steps above will achieve most of the cost savings for your business.

When thinking about eCommerce in construction, your plans should be simple, cost effective and need take only one step at a time, with an eye to the future. Generalized solutions to help you implement your eCommerce website will become available as you proceed and time passes. Successful systems will work for the small subcontractor ordering by cell phone from a remote jobsite and for the purchasing department at a major sub-contractor that may be larger than the manufacturer they purchase from.

**It will be fascinating to watch and influence how the construction industry's use of the Internet evolves over the coming 5 years. I would appreciate hearing your comments on this.**