

Building the B2B Foundation

Positioning Net Market Makers for Success

Executive Summary

Net Market Makers (NMMs) are breaking new ground in old industries by providing them with a wealth of supply chain information via the Internet. The full potential of the nascent NMM industry has yet to be realized, but some NMMs have found winning strategies and rapidly built their customer base while others have struggled with the challenges of getting their ventures up and running.

What makes a net market maker successful? Of the more than 100 NMMs and industry experts A.T. Kearney interviewed, nearly all cited critical mass as the key success factor for their business, and nearly all believe that deep industry knowledge is needed to build this critical mass. However, a wide variety of theories exists on how to apply this deep industry expertise. A.T. Kearney has derived a useful framework called the "3Cs of business-to-business" (3Cs of B2B)—commerce, content, and connection—that outlines how NMMs need to apply this domain expertise to be successful.

NMMs must understand the product characteristics inherent in their industry because these characteristics will determine which commerce model is most appropriate for their site. An industry's price volatility will determine whether a Catalog or dynamic trading model (where bidders determine price) is appropriate. Within dynamic trading, NMMs can select an Auction, HyperAuctionSM, or Liquid Exchange, and the most appropriate model will depend upon an industry's liquidity and ability to parameterize the traded product and/or service. The emerging model, the HyperAuction, allows participants to negotiate and make tradeoffs on a number of criteria in addition to price, offering the best features of an online auction and a commodity exchange. Some HyperAuctions will evolve even further to a Liquid Exchange, which offers real-time execution of transactions and risk management capabilities in addition to the features of a HyperAuction. Commerce models offer varying levels of functionality, and many NMMs that use simpler solutions plan to evolve to more advanced models in the future.

Not only must NMMs pick the right commerce model, but also provide the right types of commerce-related content and value-added content to attract buyers and sellers to their site. Participants who can make informed buying decisions based on information provided on the site will likely turn into loyal customers.

In addition to commerce and content based on industry knowledge, the NMM must set up the appropriate connection for its industry. Connection can be broken out into two types: intraconnection (internal processes between the buyer and seller in the transaction) and interconnection (connecting other supply chain participants involved in the transaction). Successful NMMs will enable a series of connections to support end-to-end solutions.

This paper discusses the research that A.T. Kearney conducted for Casbah Corporation.

Introduction

The Internet business-to-business (B2B) space is red-hot, with valuations for publicly traded B2B companies escalating rapidly. New articles, papers, and books heralding the latest developments appear daily. Although estimates for the size of this burgeoning space vary widely (for example, Gartner Group predicts \$7.29 trillion by 2004 while Goldman Sachs estimates \$1.5 trillion), the future holds great promise.

Interview Highlights

The two key success factors to building critical mass are:

- Deep industry knowledge*
 - Differentiating technology*
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Net Market Makers (NMMs), or web-based trading communities, represent a huge portion of the B2B transactions conducted on the Net. We interviewed more than 100 NMMs and industry experts to get their views on what makes NMMs successful. Nearly all cited the ability to attain critical mass of buyers and sellers as the key success factor for their business. However, very little research has been conducted to aid NMMs in their quest to attain critical mass. What is critical mass, and what drives the ability of these NMMs to achieve it in their respective industries?

Net market makers can build participation in this ever-changing space by executing a distinct strategy we call the "3Cs of B2B." Achieving critical mass in the B2B space will require the right mix of commerce, content and connection. While the concepts themselves are fairly simple, applying them and keeping pace with new developments is more complicated. Which commerce model will be most effective in the metals industry? What content does an energy trading site need? What entities should be connected in the agribusiness supply chain? Since B2B is much more industry-specific than the broad business-to-consumer (B2C) space, answers will vary by industry. Since the NMM model that's wildly successful in one market will fail in another, NMMs must carefully address each of the 3Cs with their specific industry needs in mind. When NMMs craft this basic foundation, critical mass will naturally ensue.

NET MARKET MAKER DEFINED

What is a net market maker? For this white paper, it is a company that creates an Internet-based market to facilitate commerce between buyers and sellers. Neutral online marketplaces like PaperExchange and Altra Energy, as well as marketplaces that advocate on behalf of either buyers or sellers (otherwise known as "affiliated" sites) like Ariba.com, all fall under this definition. One-to-one web transaction enablers, such as Dell's company website or other web "storefronts," do not meet the definition.

Net market makers achieve optimal results for buyers and sellers by harnessing the Internet's capability to aggregate disparate pieces of information. Since inefficiencies in purchasing are largely information-driven, the availability of near-perfect information enables pricing to accurately reflect market conditions. By consolidating this information, NMMs can significantly enhance and automate traditional time-consuming purchasing procedures such as RFPs, RFQs, fax requests, phone inquiries and purchase orders. Similar benefits may extend to the larger supply chain as well: NMMs can enhance efficiencies in areas such as payment, order receipt, fulfillment, logistics, and results tracking.

Net market makers typically operate in large B2B trading markets. While revenue models vary, a large trading market represents a significant revenue opportunity for players in the NMM space whether based on transaction, subscription, membership, posting, or service fees. In these large markets, as the number of users on a network increases, the network's value increases exponentially. This principle (also known as Metcalfe's law) applies to NMMs, which become more valuable and build customer loyalty in industries where they can aggregate product information from multiple parties. The industries involved are not necessarily fragmented; NMMs are emerging in industries where there may be only a few buyers and/or sellers that control large portions of volume as well.

While the market is clearly predicting success for NMMs of all types, the reality is that NMMs face common hurdles that may impede their ability to be successful. In order to realize their full potential, NMMs must overcome the following challenges:

- *Competition:* Competing NMMs exist in several industries, and new ones are being formed by key industry players and neutral third parties.
- *Reaction of channel parties:* Members of distribution channels that benefit from information inefficiencies may resist a trend that mitigates their current advantage.
- *Technology:* The rate of technology adoption varies significantly by industry and by distribution channel, making the interconnections required in the NMM difficult.
- *Culture:* Some industries are unfamiliar with the benefits of e-commerce and will require a compelling value proposition that justifies "scrapping" decades-old relationship-based transactions for information-based ones.

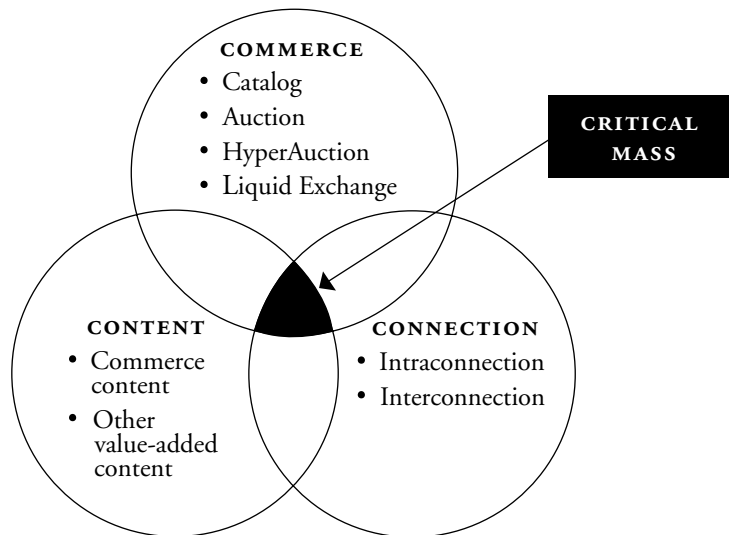
The 3Cs of B2B

In the business-to-consumer (B2C) world, companies have internalized the widely accepted 3Cs model—content, community, and commerce—to create profitable, "sticky" web offerings that enjoy multi-billion dollar valuations. While these principles remain important in the B2B space, the keys to success for a B2B net market maker are different. We have determined that each NMM must choose and execute the correct strategy in each of the 3Cs of B2B, which consist of the following:

- Commerce
- Content
- Connection

By deploying the optimal strategy for commerce, content, and connection, NMMs can attain the critical mass of buyers and sellers they seek (see figure 1).

Figure 1: The 3Cs of B2B



Source: A.T. Kearney

COMMERCE

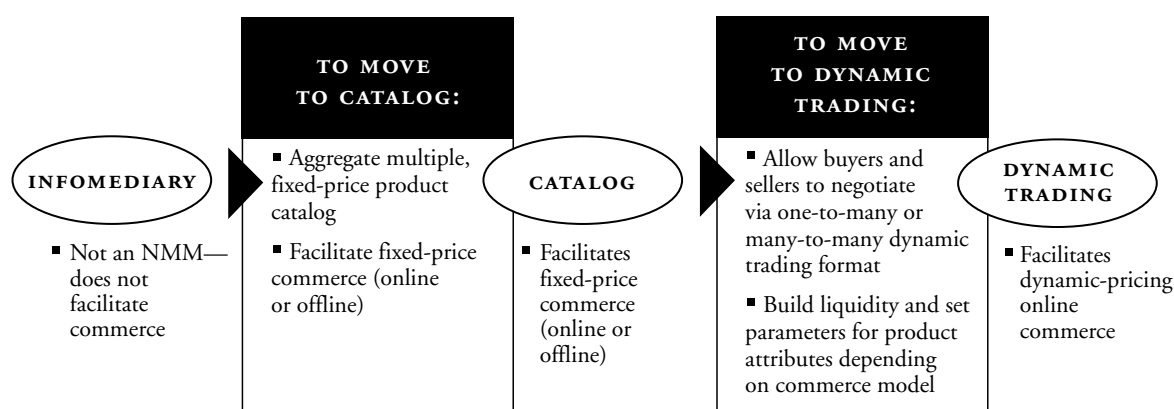
While the basic concepts behind a catalog, auction and exchange are simple, determining which model—or combination and evolution of models—is ideal for a particular NMM is more complex. Each NMM commerce model identified in this white paper—Catalog, Auction, HyperauctionSM, and Liquid Exchange—offers specific benefits and has certain limitations. One emerging commerce model—the HyperAuction—will continue to drive greater efficiency in certain industries by incorporating factors other than price (such as quality) that influence buying decisions into an automated auction.

Interview Highlights

Nearly 50% of NMMs interviewed have no auction or exchange capability, but 30-50% plan to add capabilities in the future

Many NMMs plan to evolve from their current model to a more advanced model that will better meet participants' needs. In fact, many NMMs were founded as infomediary sites and have progressed to more advanced modes of trading based on price volatility (see figure 2) and other product and industry characteristics. A detailed understanding of the different types of commerce models and how well they apply to specific industries will allow NMMs to better define their value propositions, more fully understand participants' requirements, and successfully evaluate "make or buy" decisions with third-party providers of software and value-added services.

Figure 2: NMM commerce model evolution



Source: A.T. Kearney

Catalog

A Catalog solution, the simplest and most common commerce model, aggregates multiple product catalogs into a one-stop shop accessible to all. In industries with high search costs, online catalogs offer users tremendous flexibility by allowing product comparisons, customized pages, and other features that enable rapid identification and purchase of desired goods for buyers.

The catalog solution mobilizes one of two strategies. The first is to enable online purchasing at predetermined fixed prices via e-commerce. NetBuy, for example, sells electronic components in a multi-vendor catalog format. These types of solutions largely make money on transaction fees or margin, as they rely on large amounts of trading volume directly on their site. The second strategy is to offer posted inventory or posted price (if available) and link buyers and sellers to conduct offline negotiations. Comps.com, a commercial property NMM, helps match buyers and sellers by aggregating an extensive list of available commercial properties. This type of strategy often employs a subscription or posting fee, as NMMs have little visibility into the consummation of the transaction.

Catalog solutions generally guarantee that a listed product is available for purchase at the list price. While a majority of catalog solution providers employ transaction fees, they report significantly higher reliance on listing, subscription, and advertising revenues than NMMs employing dynamic trading models. Catalog solutions are most appropriate for industries with the following characteristics:

- **High product search costs**
All NMMs cite high product search costs as a key benefit, and this is the primary inefficiency addressed by a catalog solution.
- **Lack of price volatility**
Catalog solutions work best in industries or markets where price volatility is low.
- **Time-critical purchasing**
Catalog solutions will continue in industries where time-critical purchasing is necessary, and buyers and sellers can't afford the risk related to confirming the availability of products and services at an acceptable price. One NMM in the automotive parts industry explained: "Our business model relies on same day or next-day delivery of auto parts. **Our buyers can't wait a week for the auction process to secure a part they need immediately.**"

A catalog solution is the ideal end-state for industries and products that fit these criteria—including chemical reagents, semiconductors and electronic components, and

Catalogs: Simplicity and Speed

The chemical reagent industry is an ideal candidate for an online catalog. The research chemist or life scientist faces myriad choices when seeking a particular reagent. While some large distributors in the industry pull together an extensive number of products, they cannot supply the full array of possibilities available. Buyers' search costs are high, and suppliers struggle with customer acquisition costs due to difficulties in targeting the appropriate buyers.

Net market makers have emerged to provide an online catalog solution in this space, including Chemdex and CambridgeSoft. CambridgeSoft's site ChemACX.com is an online aggregated catalog featuring over 200,000 products from 210-plus chemical suppliers. All data available in each catalog is faithfully reproduced, including detailed chemical structures and materials safety information. The site provides a single, easy-to-use search and order procurement site.

Low price volatility and constant demand make the catalog solution effective. Research proceeds at a frenetic pace; no one will wait for an auction to save a small amount on a critical compound. And since order quantities are relatively small, streamlining the acquisition and fulfillment processes adds significant value to the supply chain.

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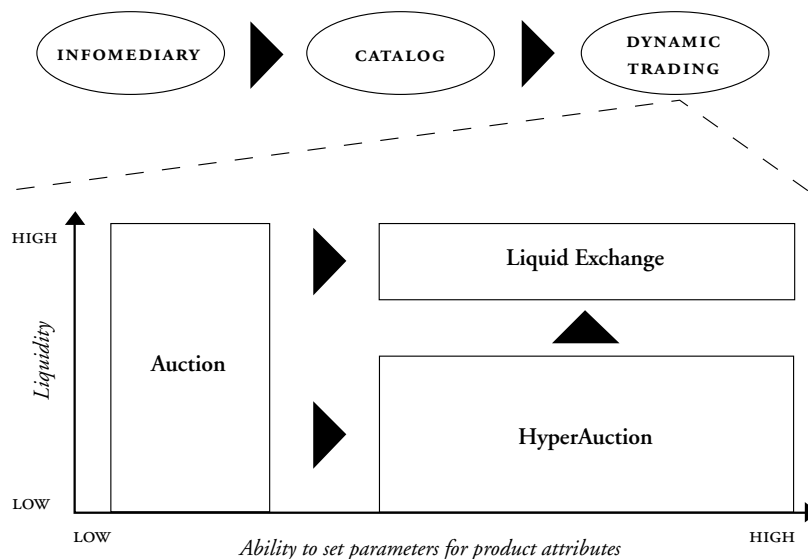
routine medical supplies. It also frequently represents a first step for industries reluctant to trade online. As one NMM explained: "Not only are most media buys made over lunch, golf and fax, but many agencies and sellers aren't even online, which poses a significant challenge for us. Rather than trying to change the way people work, we've identified what the industry needs right now and will continue to adapt our model as our buyers and sellers become more comfortable with online trading."

Figure 3: Catalog model

A CATALOG SOLUTION PROVIDES ONE-STOP ELECTRONIC SHOPPING	
ADVANTAGES	LIMITATIONS
Lowers product search costs Offers easiest technology implementation Is simplest evolution from offline purchasing Allows immediate purchasing	Prices must be relatively stable Prices may not reflect true market conditions Technology may not provide a sustainable competitive advantage

Source: A.T. Kearney

Figure 4: Dynamic trading models



Source: A.T. Kearney

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Where prices are volatile, a catalog solution is not the ideal model long term. Buyers and suppliers in industries with high price volatility must deploy a dynamic trading model that allows for real-time pricing based on market conditions. Each of the three dynamic trading models—auction, HyperAuction and Liquid Exchange—offers specific benefits (see Figure 4).

Auctions: Converting Trash to Cash

NMMs in the high-tech space have adopted the auction model for excess inventory of semiconductor & electronic components such as memory and passive devices. Companies are gathering the millions of excess parts available, bundling them into "grab bags," and auctioning them off to the highest bidder.

The auction format is poised to succeed for several reasons. The auction format helps participants derive the true market value of outdated products. In addition, the market is extremely fragmented—thousands of suppliers (brokers, distributors, and resellers) and buyers (contract equipment manufacturers, OEMs, other distributors) regularly trade these components. The simple auction model creates a completely new market to match buyers and sellers. Finally, since the industry is made up of millions of individual products, it is extremely difficult to create product parameters, making it necessary to place bids item-by-item.

Auction

The model that enjoys popularity in the consumer-to-consumer space and has widespread application in business-to-business is the Auction, where price is determined dynamically through bids submitted on unique and/or individual items over a certain period of time (see figure 5). This model, based solely on price, encompasses both regular auctions with one seller and many buyers (such as Autodaq, which conducts B2B auctions of used cars), and reverse auctions with one buyer and many sellers (such as 58k.com, which offers reverse auctions of printing jobs).

Interview Highlights

46% of NMMs without any dynamic trading capabilities
plan to add auctions in the near future

Auction models generally favor the "initiator" of the request, at least in terms of price. Because of bidder competition, regular auctions yield sellers a higher-than-typical price, while reverse auctions help buyers find good deals. On the other hand, non-initiators receive benefits as well. Buyers in regular auctions have access to greater product/service selection and availability, while sellers in reverse auctions have access to more buyers. This efficient market pricing of individual goods or services can occur where the following characteristics exist:

- **Unique items**

The auction model works best for products and services that are unique and whose value is not easily determined.

- **Price volatility**

Since auctions focus solely on price, they flourish only where price volatility offers either buyer or seller an advantage. One NMM in the high-tech space noted, "auctions are good in a supply-constrained environment with volatile prices—however, this is usually not the case with new IT equipment."

- **Fragmented buyers and/or sellers**

Since an auction is fundamentally a one-to-many transaction, more than one bidder must be present

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in order to drive price competition. The distribution of power in the supply chain will often determine who will "initiate" and who will "bid."

- **High participant familiarity**

An online auction model is easier to implement in markets where commerce is conducted in an auction or auction-like fashion already. One NMM facilitating trade between auto dealers and providers of new and used cars commented that "our auction model is important because dealers are accustomed to buying cars that way already—it's a natural evolution."

- **New market opportunity**

Auctions may create a new market opportunity or new source contact for a buyer or seller. One application converts leftover materials into cash. As one NMM commented, "Our auctions are getting rid of excess inventory that is usually written off by the seller anyway."

- **Lack of time-criticality in purchasing**

An auction makes most sense when purchases are not time- or mission-critical. As a high-tech NMM explains: "Auctions are not a big part of industry for production managers. There is too much risk and time involved when ordering product for the production line."

The auction model lends itself well to such B2B industries as wholesale used cars and used construction equipment. However, the weaknesses inherent in the auction model will limit its applicability in the B2B space. As one NMM in the high-tech industry observed, "I see auctions as a niche play applying to only certain markets. The end user does not have the time and patience to go through the bidding process, and manufacturers need sealed products with current dates." More importantly, auctions are often too price-centric for B2B purchases. When other criteria such as quality vary among suppliers, auctions may not provide enough information online to enable bidders to determine their true value.

Figure 5: Auction model

AN AUCTION ENABLES PRICES OF UNIQUE OR INDIVIDUAL ITEMS TO BE DETERMINED DYNAMICALLY	
ADVANTAGES	LIMITATIONS
Reduces product search costs May create new market opportunities Derives a "true" market value for the product/service	Purchases cannot be time-or mission-critical Price is typically the only buying criteria incorporated

HyperAuction

The natural evolution for many of today's auction solutions is a newly emerging model we have called the HyperAuctionSM that incorporates the benefits of offline purchasing with the efficiencies of online transactions (see figure 6). The HyperAuction model speeds and automates the auction process by defining and standardizing the criteria buyers use in making purchase decisions, which enables the automatic completion

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of complex transactions based on those criteria. Because buying parameters are predefined by the NMM, the bidder merely states preferences up front; the HyperAuction automatically searches for the appropriate item or bundle of items, executes bids, and closes transactions.

Figure 6: HyperAuction model

A HYPERAUCTION ALLOWS PURCHASING BY INCORPORATING AND AUTOMATING PRESET BUYING CRITERIA IN ADDITION TO PRICE	
ADVANTAGES	LIMITATIONS
Reduces product search costs Enables buyers to specify several buying criteria and set contingencies Executes transactions automatically based on preset preferences Allows bundling/unbundling of products Reduces transaction time through process automation	Product availability is not guaranteed Not for industries with stable prices Products must be broken into buying parameters

The HyperAuction removes the human eye from the actual bidding process, saving an incredible amount of time for buyers and sellers. It also simulates complex, real-life buying procedures not possible in the standard auction format, including:

Multi-parameter bidding

Net market makers set standard buying parameters—which could include quality rating, technical specifications or brand name—enabling participants to concentrate on variables that are more important to them than price.

- specifications or brand name—enabling participants to concentrate on variables that are more important to them than price.

Automated proxy bidding

Purchases are completed taking into account the buyer's preset budget limits and buying preferences.

- **Contingency purchasing**
Complex contingencies can be built into the overall purchase of products, enabling bidders to buy on the terms they need. For example, a buyer can execute a winning bid on an item contingent on securing credit.

Bundling and unbundling capability

Net market makers can provide the option to buy goods either together or separately, allowing bidders to obtain the best price for their combination of items.

- to obtain the best price for their combination of items.

Many NMMs that face difficulty introducing auction models believe that the increased functionality of the HyperAuction model will drive increased transaction volume. One metals NMM stated, "**We need to do this next level of auctioning in order to better meet buyers' and sellers' needs.**" Although this solution shows vast potential, it has not yet been implemented on a wide scale.

The HyperAuction works best when buyers and/or sellers are fragmented, participants are familiar with auctions, and a new market opportunity is created. The following characteristics also lend themselves specifically to this solution:

- **Defined and standardized product parameters**

The NMM must be able to break up a product description into well-defined parameters that represent the key buying decisions necessary to conduct automated, intelligent auctions. For example, advertising is often bought and sold not by the type of magazine or TV show, but by the type of audience it attracts. If an advertising NMM can successfully define all of the parameters that influence the purchase of advertising—such as rating, demographic, and frequency—it can allow buyers to make their advertising purchases automatically based on their specifications. One NMM in the advertising industry—Adauction.com—allows the purchase of online media based on Nielsen/NetRatings data.

- **Complex purchasing**

Complex supply chains have a greater need for the features HyperAuctions can provide. HyperAuctions mimic the contingencies, product bundling, multiple buying criteria and real-time execution found in real life buying—a tremendous benefit to complex supply chains. For example, creditex.com is a financial services NMM where the participants engage in the complex process of trading credit risk derivatives—which is currently verbal and would greatly benefit from the efficiencies of multi-parameter and contingency bidding embedded in the HyperAuction model.

- **Time-consuming purchasing processes**

The HyperAuction's key advantage is that it automates time-consuming negotiations and auction procedures through proxy bidding, or automated bidding based on preferences that are predefined by the buyer. Industries that gravitate to this model can "quicken" their supply chains and focus on higher-value-added tasks.

CASE STUDY: Efficiency as an Art Form

NMMs in the printing industry have emerged to automate the often laborious and inefficient process of selecting and purchasing print service. Many are facilitating reverse auctions—or automated RFQs—for print jobs, where multiple printers bid job-by-job for a piece of print business posted by the prospective buyer. While these NMMs—including companies like 58k.com, PrintMarket, and PrintBid.com—are achieving success, those that we talked to indicated their desire to eventually adopt a HyperAuction-like model for three key reasons:

- **Importance of non-price attributes**

As one NMM explained, "auctions are controversial in the printing industry—some people feel that they commoditize an art form." In response, some printing NMMs have created unique auction processes—58k.com, for example, allows prospective buyers to see the top three bids to perform the appropriate quality versus price tradeoffs when selecting a printer.

- **Need for printer uptime**

Printers can't afford downtime; they need a solution that reduces the amount of time required to secure print jobs and increases the time needed to execute quality printing. Rather than consistently monitoring a series of seven-day-long bid processes on individual items, printers could set proxy bids that would be handled automatically.

- **Need to standardize buying parameters**

As one NMM said, "it's really important to have good forms." While there are some standardized parameters for a basic print job, a successful printing NMM has the opportunity to provide structure to the industry by creating a "universal" form that can accurately describe all print jobs.

While the print industry has the prerequisites for a successful HyperAuction, NMMs face the challenge of defining buying parameters. A universal "template" for all print jobs would enable both printers and print buyers to preset their preferences and capabilities, creating a semi-liquid marketplace.

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The HyperAuction model will quickly emerge in many industries, including certain segments of transportation, advertising, printing, steel and financial services. The primary disadvantage is that if liquidity is limited, purchasing will not be completed in real time and guaranteed. As a net market maker expands the number of bidding parameters, it reduces the suppliers of these ultra-specified products, diminishing price competition, lengthening the bidding process and reducing liquidity. However, HyperAuctions that can put together a critical mass of buyers and sellers may achieve the amount of liquidity they need to move to the most advanced dynamic trading model—the Liquid Exchange.

Liquid Exchange

A Liquid Exchange is a NASDAQ-like solution where buyers and sellers bid and ask for the same products and services in real time, and where the requests will be filled quickly (see figure 7). Unlike the HyperAuction model, all prices are transparent (conceivably prices are viewed on a ticker) and purchases are largely guaranteed via the constant supply that generates the market's immense liquidity.

Interview Highlights

32% of NMMs without dynamic trading capabilities plan to add exchanges in the near future

This model allows the benefits of dynamic trading with the promise of quick fulfillment of mission-critical products and services. Liquid exchanges also leverage the liquidity of the market to create financial instruments to allow buyers and sellers to manage risk in their supply chains through features like futures and options. The value is tremendous to all participants, particularly in capital-intensive industries.

Figure 7: Liquid exchange

A LIQUID EXCHANGE IS A DYNAMIC TRADING ENVIRONMENT WHERE PARTICIPANTS CAN “TRADE AT WILL”	
ADVANTAGES	LIMITATIONS
- Goods are guaranteed available at bid/ask price - Reduces product search costs - Enables buyers to specify several buying criteria and set contingencies - Executes transactions automatically based on preset preferences - Allows bundling/unbundling of products - Saves time by automating negotiations - Allows creation of financial instruments which may inflate trading volume	- Not all industry NMMs can achieve liquidity - Products must be broken into buying parameters - Not applicable to industries with stable prices

The NMM also benefits directly, usually through greater transaction volume (and transaction fees) due to the participation of traders and speculative investors who trade, but may or may not physically use, the product. This model will only emerge in a few select industries, due to the specific combination of characteristics required for its success. Prices must be volatile, buyers and/or sellers fragmented, product parameters defined and standardized, participants familiar with dynamic trading and new market opportunities created. Additional characteristics unique to the exchange model include the following:

- **Liquidity attainment**

Liquidity, or a constant trading environment where participants can "trade at will" and feel assured they will secure or sell the good at the published price, is the primary differentiator between a HyperAuction and a liquid exchange. To achieve liquidity, NMMs must overcome two obstacles. The first is an imbalance of power within the supply chain. A large player that can drive a large amount of volume to the site may find little incentive to participate in an exchange environment if it already enjoys a pricing advantage due to its size. As a COO of a plastic injection molding company asked, "As probably the largest buyer of a single grade of resin, why would I give up my company's competitive advantage?" The second obstacle is the use of too many parameters to define a product or service. While affording choice to the buyer, a high number of parameters can also impede liquidity. As choice increases, the number of qualified suppliers diminishes.

- **Time-sensitive purchasing**

Since prices are transparent in the liquid exchange, this model combines the best of both worlds: It provides a "true" market price and allows for immediate purchase of goods. Goods that are often bought for immediate use and that experience price volatility (such as wholesale natural gas—which Altra Energy is currently trading online) will move to a liquid exchange if possible. The delivery mechanism must also be considered—significant delays in shipping the product may make it more difficult to execute real-time transactions. However, in many industries—such as energy and telecom—quick delivery can be arranged and executed via a digital network, bringing liquidity to the spot market. The only risk is that due to the volatile nature of the spot market, transactions may be completed at higher-than-desired prices.

CASE STUDY: "Liquid" Energy

While many NMMs aspire to move to a liquid exchange model, others have already attained this vision and are now leveraging their liquidity to push the model's outer limits. In the wholesale energy space, NMMs like Altra Energy, Houstonstreet.com, APX, Amdax, and Red Meteor facilitate the trade of natural gas, natural gas liquids, electricity, and crude oil using an exchange format. These largely standardized products experience extreme price volatility in this highly fragmented industry, and are often bought on a mission-critical spot basis—meaning they must be able to guarantee the purchase is executed and delivered quickly. As one NMM explained, **"our buyers and sellers are interested in exchanging quickly and moving on."**

These NMMs are attempting to increase their liquidity by simplifying the parameters used to trade. For example, Houstonstreet.com is launching its SpeedWay service in the spring of 2000, which is designed to increase trading velocity and liquidity by reducing the number of buying parameters. And as these NMMs grow in liquidity, they are beginning to leverage financial instruments to allow risk management for buyers and sellers. One NMM indicated that as it achieves the necessary liquidity, it is developing financial instruments to allow options, spreads and futures to be traded over the system—inviting speculative traders to involve themselves and drive up transaction volume. As these NMMs become truly liquid exchanges, we will continue to see hedging and trading online similar to that of traditional exchanges such as the NYSE or the LME.

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- **High trading frequency**

Frequently traded goods are more likely to move to a liquid exchange than those typically traded on a long-term contract basis. For example, agribusiness NMMs such as FoodUSA, WorldofFruit and Gofish are emerging because of the current high trading frequency in the meat, produce and fish segments of the food industry.

Whether NMMs choose a model as complex as a liquid exchange or as simple as a catalog, NMMs that choose the commerce model that best fits their industry take an important step toward achieving critical mass.

Figure 8 summarizes the industry and product characteristics by B2B commerce model.

Figure 8: Commerce model table

DIFFERENTIATING INDUSTRY / PRODUCT CHARACTERISTICS	COMMERCE MODEL			
	FIXED PRICE CATALOG	SIMPLE AUCTION	HYPER- AUCTION	LIQUID EXCHANGE
Price volatility	Low	Medium	High	High
Time criticality of purchase	High	Low	Medium	High
Ability to set parameters ¹	N/A	Low	Medium	High
Trading frequency	N/A	Low	Medium	High
Product availability ²	High	Low	Medium	High

Notes: 1. Ability to assign defined and standardized product parameters without sacrificing market liquidity

2. Ability of buyer to immediately “purchase at will” for the posted price

Source: A.T. Kearney

CONTENT

While the NMM’s commerce capability enables it to shine by facilitating transactions between buyers and sellers, content represents an equally important opportunity for the NMM to differentiate itself and create buyer and seller loyalty. The NMM’s functional focus and commerce model will determine what types of content and information services will offer the best support. Content falls into two types: commerce content related to the commercial purpose of the product, and other value-added content, such as community-building information, that provides useful supplemental information which encourages participants to remain on the site. In this regard, deep industry knowledge is a key competitive advantage for NMMs. As one NMM commented, “the hard part is getting buyers and sellers to come to your site and to continue coming.” Net market makers that offer information and services users value highly and cannot find at another NMM will develop customer loyalty—a key factor in attaining critical mass.

Commerce Content

Net market maker participants require specific information to make buying decisions. Commerce content refers to the actual product or service offered on the site as well as all the product/service information needed to support the purchasing decision. The main types of this commerce content are described below.

- **Product description**

Product listings must be carefully designed to ensure all product information is available to make a purchase decision. For example, in the high-tech industry this may include everything from general descriptions to highly specified design schemata that engineers can click and drag onto their product designs.

- **Accurate inventory listings**

The customer base is likely to dwindle if inventory on the site turns out to be unavailable, especially when time is a critical factor in the purchasing decision. The sheer volume of products and business applications in some industries, coupled with the rapid pace of product life cycles, makes accurate inventory listings all the more critical for site users.

- **Pricing information**

Buyers want to quickly and accurately compare prices among different products and vendors. Most industries have multiple forms of price lists (corporate discounted, recommended retail, wholesale, etc.), so NMMs must assure buyers and sellers they are getting the most accurate pricing information. Net market makers also add value by offering the buyer unbiased information, rather than inundating prospective customers with sales calls and price quotes.

- **Product-related information**

Net market makers can provide valuable information related to products offered on the site, such as technology reports, specification requirements, and industry standards. For instance, Houstonstreet.com, an energy NMM, provides weather updates on its site that aid traders in predicting energy needs and making purchases accordingly.

- **Company profiles & ratings**

In many industries, NMMs are disintermediating a supply chain with hundreds or thousands of buyers and sellers. Their detailed listings of buyers and sellers provide greater access while maintaining existing relationships and contacts. Neutral sites generally offer unbiased company and product information, while affiliated NMMs may have a bias toward product information from their channel partners.

- **Transaction process management**

Net market makers can also help buyers and sellers track purchases from bidding to receipt and payment. Access to information associated with the transaction, such as inspection and appraisal or customer service and support, allows buyers and sellers to better manage the entire process.

- **User purchasing information**

Net market makers can also differentiate themselves through the types of information on historical purchasing behavior they provide. Functions such as data mining and warehousing—which help users learn about products being bought and sold and their prices and bidding histories—are useful in analyzing trends and creating forecasts.

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Good content helps educate buyers and sellers and creates a greater sense of control over the transaction. Buyers now have more power with the transparency of prices, availability, and supplier sources. As more parties test NMM sites as a new purchasing venue, rich commerce content will brand NMMs as a trusted site for conducting transactions.

Other Value-Added Content

In addition to content that is closely related to purchases, NMMs often provide other value-added content that offers buyers and sellers another source of information about both the products and services available on the site and important industry-related issues. Other value-added content may include features such as:

- **Community information forums**

Net market makers can provide forums for buyers, sellers and other industry participants to interact, ask questions, solve problems, share stories and enter chat rooms. In many industries, NMMs are aggregating smaller buyers and sellers who are operating in resource-constrained environments. By creating a work-group where these parties can connect and share information, the NMM fills a critical business need.

Related party information

- Net market makers can link participants to other content or relationship providers such as other channel players, platform providers, media sites, and trade associations. By providing these types of links, the NMM drives traffic to its site. As channel parties begin to migrate towards web-enabled commerce, they will start with their traditional trusted places for product and move to the NMMs for information to make purchasing decisions.

Career information

- Net market makers can post information such as job listings, recruiting events and access to other sources to help buyers and sellers learn more about the industry and provide career assistance.

General industry data

- Information and links for general industry topics such as seminars and events, news and information, trade association information, training course listings and certification may all attract site users.

NMM site information

- Any information that makes the NMM's site easier to use and that caters to industry purchasing behaviors will help increase traffic. Examples include customer service and support capabilities and feedback mechanisms that enable NMMs to find out what buyers and sellers want and provide it.

As the NMM's commerce model evolves, so will its content requirement. The move from a catalog to an auction or liquid exchange increases the need for product information and for the number of parameters surrounding the product. The spectrum of content needs begins with the pure infomediary, which provides industry-specific information and community services to attract audiences. The spectrum ends with the full content offering where detailed commerce content is provided to help with all parts of the transaction.

Solid content offerings help NMMs achieve a critical mass of buyers and sellers and make it much harder for competitors to challenge their position. Content enables relationship-building, easing the buyer/seller transition to the NMM site and creating a loyal, sustainable user base.

CONNECTION

Connecting participants on its site and establishing connections across the entire supply chain as well as with other NMMs is the final primary determinant of the NMM's success. NMMs are currently focusing on the front-end of getting the sites up and running and enabling the exchange of information between buyers and sellers in the market. As a result, they have concentrated little on the more difficult back-end challenge of integrating systems among these companies so they can communicate and share data to complete the transaction.

Interview Highlights

NMMs expect the relative percentage of transaction fees to decrease because the ability to offer end-to-end solutions will become more important

The NMM must develop a strategy to identify which parties it needs to connect and how it will achieve this connection. Connection can be broken out into two types: intraconnection (internal processes between the buyer and seller in the transaction) and interconnection (connecting other supply chain participants involved in the transaction). NMMs that effectively analyze and understand how to connect all of the necessary information, systems, and participants will have a defendable competitive advantage in their quest to attain critical mass.

Intraconnection

The most basic data exchange in the NMM occurs between the buyers and sellers in the transaction. Once the bid is executed and confirmed, the NMM must enable the trade to be carried out automatically or with minimal human intervention from order to payment and delivery. For example, when a buyer accepts a bid or selects the goods, the payment system should automatically account for the payable. Likewise on the seller side, when the bid is accepted and the goods are claimed, an accounts receivable entry should be made. To achieve these two actions requires integrating capabilities between buyers' and sellers' ERP or legacy systems. Currently, NMMs in industries such as food and agribusiness are among those working with buyers and sellers to ensure this type of connectivity.

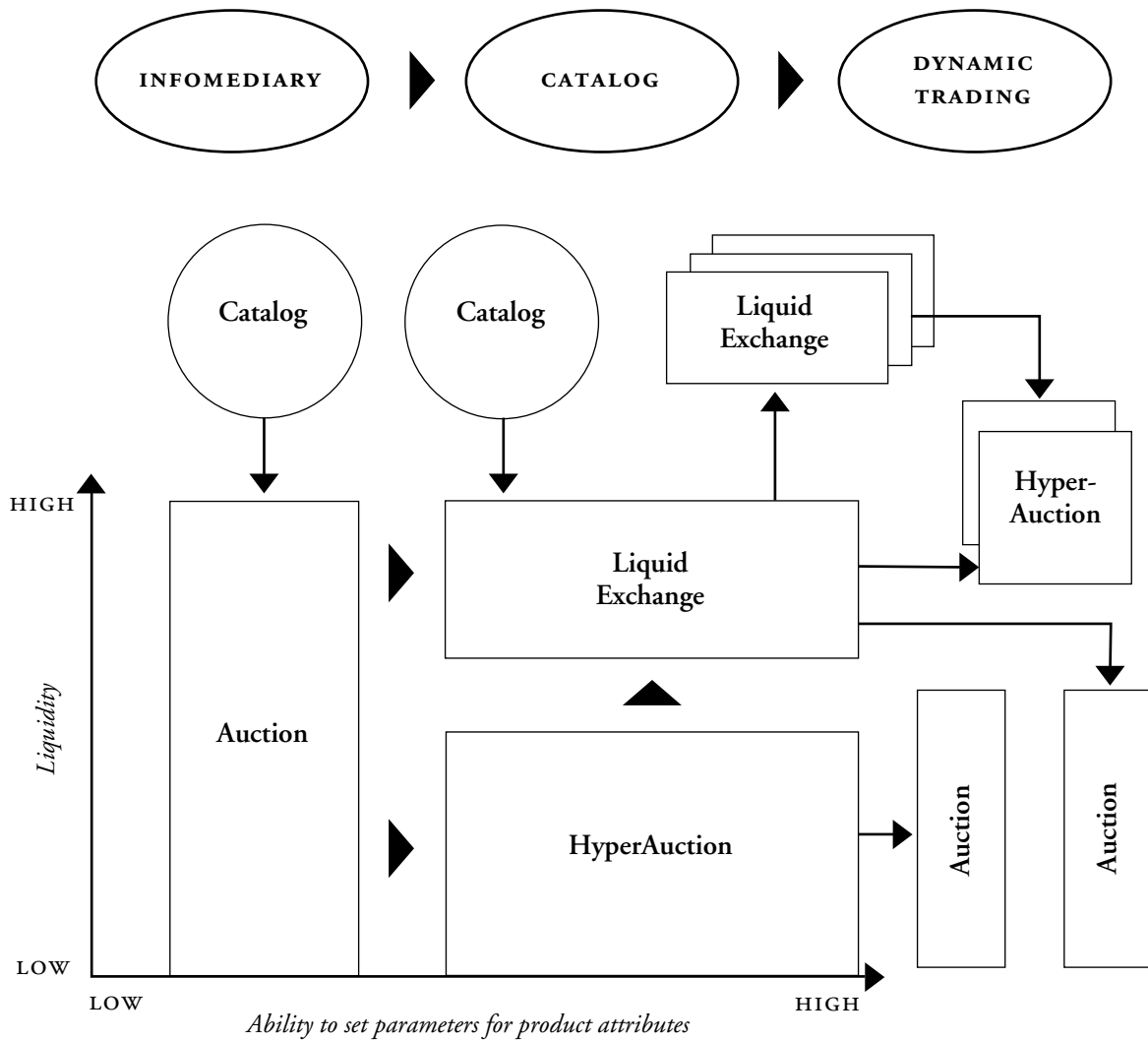
Interconnection

NMMs are now building other service capabilities, partnering with third-party service providers, and/or linking to other NMMs in the supply chain to provide end-to-end services (see figure 9). Depending on the industry, inefficiencies exist not only in the transaction model or information flow, but also in the ability to link the outcome of one industry to another related industry in the transaction. Customers are demanding end-to-end transactions, which entail value-added services or supply chain functionality that often reside outside the NMM's core competency. This level of connection is driven by the particular value-added services or outside parties required for the transaction in each specific industry. These services include activities such as logistics, risk management, maintenance and repair, and order fulfillment. For example, in the capital equipment asset disposition market, once the buyer has confirmed the purchase of a refurbished piece of equipment, he or she is linked to a leasing corporation to obtain financing, a

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logistics provider to coordinate delivery, and a maintenance and part service to obtain additional parts necessary for operations.

Figure 9: Interlinked dynamic trading network



Source: A.T. Kearney

Most NMMs believe end-to-end solutions will be a necessity in the future. In most industries, NMMs are merging complex buying and selling processes that require these additional service links. However, while most NMMs acknowledge that this interconnection is important, very few are addressing this issue currently. Given this need, the ability to interconnect the entire supply chain represents a significant opportunity for NMMs to distinguish themselves from their competitors.

Connection Implementation

Once NMMs identify the requisite level of connections for their industry, they need to decide how to implement these connections. Several factors will affect the strategy for obtaining these connection levels. How many parties are involved in linking the end-to-end solution? Do outsourcing candidates know the geographic market, current systems and technology standards? Is developing these capabilities in-house feasible?

Depending on the answers, NMMs might pursue one of the following approaches:

- *Work together with service providers to build both front- and back-office connection for information flow.* One benefit from this to NMMs is the potential network effect for driving additional users to the site through these connections to service partners. This also includes the future option of dynamically linking to related NMMs and creating dynamic trading networks. Many NMMs are beginning to take the first step by linking service parties involved in the transaction (such as logistics and financing) from the NMM's site.
- *Outsource the connection solution (the NMM must still own content).* The NMM would essentially set up the web-enabled transaction between the buyers and sellers and let a third-party provider match up the exchange of information. As these XML-based solutions become more advanced, this route will probably prove the most efficient.
- *Build these service capabilities in-house through internal development or acquisition.* This choice is the most complex and costly from both a resource and time perspective. Some NMMs that have started out as commerce platform providers may begin to develop these other services in-house, but this requires expertise in industries outside the core competency.

CONCLUSION

Industry leaders are already beginning to exploit the efficiencies of the Internet, and as their successes become evident, the popularity of net market makers will continue to rise. As the network effect ripples through each NMM, critical mass will become an attainable goal.

As NMMs become more established, they will move to more advanced models of trading that fit their particular industry focus. And as buyers and sellers become more comfortable with online trading, commerce models may evolve from Catalogs to Auctions to HyperAuctionsSM to Liquid Exchanges, offering participants even greater benefits. Increased liquidity will lead to financial trading in markets where it never existed. Interconnectivity will take root, transforming currently fragmented processes into real-time virtual supply chains.

But before they can advance to these levels, NMMs must first concentrate on attaining critical mass by building the basic foundation for their business by addressing the 3Cs of B2B. By choosing a commerce model geared toward industry characteristics, supporting the site with meaningful content, and establishing connections that join both buyers and sellers and the greater supply chain, NMMs will position themselves for success.

WEB SITES

<http://www.netmarketmakers.com>

<http://www.thesupplychain.com>

<http://www.orgnet.com/netindustry.html>

<http://www.informationweek.com/768/procure.htm>

<http://www.thesupplychain.com/tscm/learnmore/glossary.asp>

<http://www.netmarketmakers.com/glossary/>

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