Characteristics of successful trading portals/marketplaces

Making eMarketplaces Work

Andy Andreani
March 2001

Deloitte Consulting

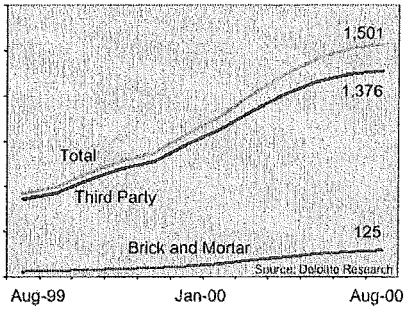
"A recent poll showed 60 percent of companies are currently involved in, or are considering e-Marketplaces."

"Eighty-eight percent also expect to conduct significant buy-side transactions through their e-Marketplaces."

"Approximately 400 of todays 7,500+ e-Marketplaces are likely to succeed over the next three to four years."

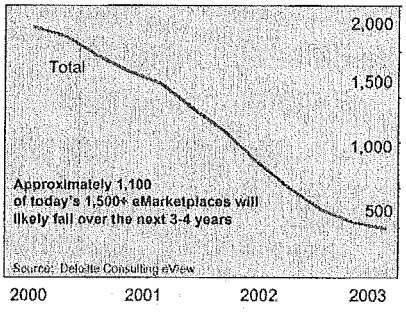
E-Markets have grown at an astonishing rate, but most will not survive

Over 1,500 e-markets to date...



Actual e-Market Growth

...however, a significant market shake-out is expected



Anticipated e-Market Decline

Characterizing the past year in B2B

- B2B market was driven by hype and promises
- B2B opportunities arose quickly, got individual sponsors within clients, were executed tactically and often did not support corporate objectives
- It turns out that B2B is not as easy as originally thought - now it seems that "thorough eat non-thorough"
- Most initiatives still in isolated pilot mode, and benefits have not ramped up yet
- Technology selection decisions distracted clients from how to use technology for competitive advantage
  - Search for the silver bullet did not produce results
- Trading partner integration proved more difficult than anticipated
- The few clients who did "get it" extended their advantage (GE, Dell, Cisco, etc). These leaders also invested heavily, and wisely

B2B is more alive than ever, it is just the approach that must change

Race to B2B E-marketplace Success and Profitability

MAKING E-MARKETPLACES WORK

eMarket Failure Risk Factors

- Anti-Trust issues
- Sub-scale Buyer Participation
- Competitor Conflicts
- Resistance from Suppliers
- Choosing the Wrong Technology at the Wrong Time

Source: Giga Research

MAKING E-MARKETPLACES WORK

eMarket Failure Potential

High Risk

- Global Health Care Exchange
- MetalSpectrum
- Novopoint
- Omnexus
- RetailersMarketXchange

Medium Risk

- AirNewCo
- Covisint
- e2open
- eHITEX
- Enporion
- Exostar
- FinancialSettlementMatrix
- Forest Express
- GlobalNetXchagne
- Myaircraft.com
- Rooster.com
- Transora
- Transplace
- Whitehammer

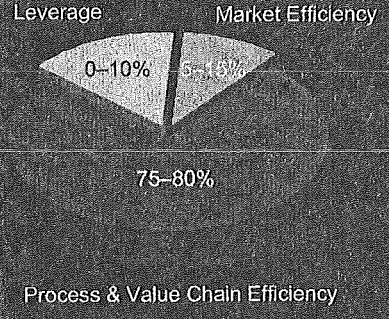
Low Risk

- Mining and Metals Procurement Marketplace
- Pantellos
- RubberNetwork
- Trade-Ranger
- Worldwide Retail Exchange

Source: Giga Research

Recent Poll Data

B2B Value Drivers



- 88% of companies expect to conduct significant e-Marketplace transactions
- Nearly two-thirds of companies believe modification of business processes as the most important challenge to realizing value
- 75% of companies believe value chain improvements will be the biggest area of savings

For e-Markets to Succeed: "It's about Industry Transformation"

1. e-Marketplaces are all about industry transformation and collaboration across the value chain and extended services. Lower product prices get attention but aren't where the real value lies.
2. e-Marketplaces must deliver value to the core businesses of member organizations. Without delivering core value to all participants (with a win-win for all), the eMarketplace will ultimately lose.
3. Integration and plumbing will help to deliver the value promised by eMarketplaces. Without it you'll never be able to replace inventory with information.
4. The capabilities required to operate and use eMarketplaces require implementation and integration of many technology components across a variety of business processes and functions. This means multiple systems applications integrated with people and processes.
5. Each company will need to leverage multiple e-Marketplaces, of different types, and will need to participate in other forms of B2B. This will allow companies to maximize benefits across the goods they purchase, processes, and geographies.

Source: Deloitte Research

MAKING E-MARKETPLACES WORK

Characteristics of successful trading portals/marketplaces

Thank you

Deloitte Consulting

Deloitte Research

B2B DARWINISM

How e-Marketplaces Survive (and Succeed)

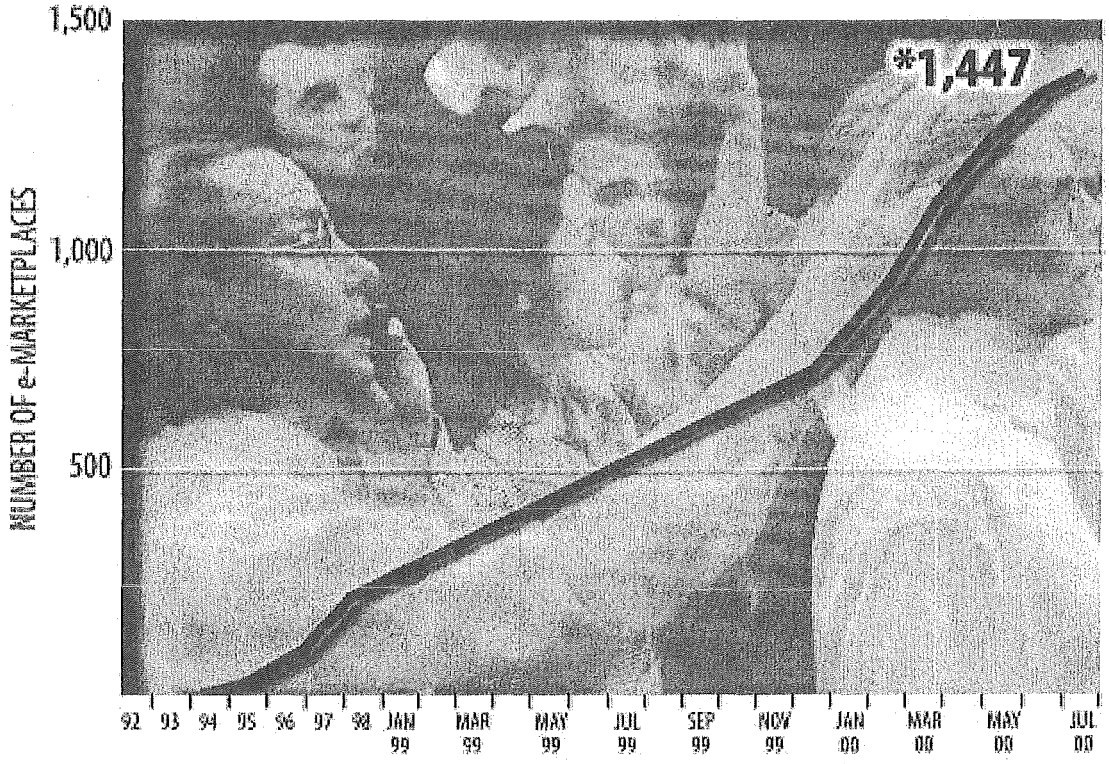
An e-View by Deloitte Consulting and Deloitte & Touche

You don't have to wait for the next chapter in the *Star Wars* saga to find out about the Clone Wars. They're going on right now in the galaxy known as B2B. And chances are they're going to be as exciting—and explosive—as anything George Lucas could dream up. The e-Wars between competing B2B e-Marketplaces will reach epic proportions over the next 18 to 24 months. And while this Darwinian struggle will leave some e-Marketplaces and their member companies with a powerful competitive edge, it will leave others scratching their heads and wondering how they managed to miss the boat.

The emergence of B2B e-Marketplaces marks a radical change in the evolution of buyer-supplier relationships. In just a few short years, industry structures that had stood the test of decades of competition—and untold waves of innovation—are being completely redefined. Second-tier players (and even once-fearless market leaders) have teamed up with former rivals, while eager third parties have announced bold plans to mediate between buyers and suppliers. In many cases, these crucial decisions were made and announced in little more than a week—driven largely by a vision of what could be and a fear of being late to the party.

By our count, some 1,400 such e-Marketplaces have thus far been launched or announced (see Figure 1). While some analysts predict that this number will climb to as high as 10,000, others lament that 1,400 is already 1,000+ too many. Whatever the final number, it's clear that the e-Wars have begun, as attrition and consolidation is already starting to occur in the B2B space.

FIGURE 1. e-MARKET GROWTH



SOURCE: DELOITTE RESEARCH

While the full scale e-Wars have not yet begun, the opening salvos are evident with the decline in e-market growth in some industries, and significant consolidation is just around the corner. In the end, we believe that accurate "body count" predictions matter less than does a firm grasp of the key factors that drive the success and failure of e-Marketplaces (success being defined as creating value for e-Marketplace members).

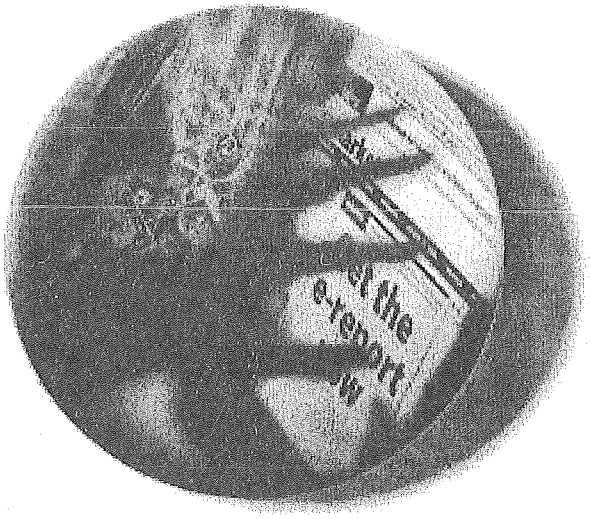
Based on our extensive B2B client experience as well as our research into the prevailing business models, ownership structures, marketing tactics, service offerings, and strategic positions in the e-Marketplace arena, we have defined a set of guiding principles to help e-Marketplaces and their participants develop successful B2B strategies.

- **e-Marketplaces are all about industry transformation and collaboration across the value chain and extended services.** Lower product prices get attention but aren't where the real value lies.
- **e-Marketplaces must deliver value to the core businesses of member organizations.** Without delivering core value to all participants (with a win-win for all), the e-Marketplace will ultimately lose.
- **Integration and plumbing will help to deliver the value promised by e-Marketplaces.** Without it you'll never be able to replace inventory with information.
- **The capabilities required to operate and use e-Marketplaces require implementation and integration of many technology components across a variety of business processes and functions.** This means multiple technology vendors integrated with people and processes.
- **Each company will need to leverage multiple e-Marketplaces of different types, and will need to participate in other forms of B2B.** This will allow companies to maximize benefits across the goods they purchase, processes, and geographies.

Based on the above principles, we've identified five critical success factors that e-Marketplaces and participant companies can use to help guide their strategies and tactics:

SUCCESS FACTOR	KEY ISSUES
Operating Structure & Ownership	*Long-term success will require that e-Marketplaces attract and retain a critical mass of transactions. This will require that the e-Marketplace offer value and a level playing field to all participants. Third-party e-Marketplaces offer participants a neutral trade environment. However, in industries where power is concentrated in the hands of large brick-and-mortar organizations, brick-and-mortar-led consortia may have the market-making power to reach critical mass and beat neutral third parties. For brick and mortar consortia to succeed, new mechanisms will be needed to guarantee a fair environment to all participants.*
Governance	*Long-term success will hinge on how well governance structures can guide and regulate e-Marketplace management—balancing the interests of shareholders, members, and outside interests (e.g., the U.S. Federal Trade Commission (FTC)).*
Scale	*The e-Marketplace will only succeed if it can maintain transaction volumes that satisfy scale considerations for buyers, suppliers, and other intermediaries alike. It must provide buyers with leverage, geographic coverage, and, in some cases, a broad array of available products. It must provide sellers with sufficient economic scale to offset the resources invested and intermediaries with sufficient reason to play.*
Regulatory Compliance	*The e-Marketplace must walk the fine line of maximizing benefits and leverage to its members and owners without attracting FTC scrutiny that would hobble implementation efforts.*
Technology	*Enabling capabilities beyond simple transaction matching requires that the buyers, sellers, and the e-Marketplace itself build robust, interconnected systems that span a number of processes. E-Marketplaces that support deep integration with their members and can help their members implement and integrate technology will have a competitive advantage, and will become "sticky."*

These five success factors can help companies looking for guidance in e-Marketplace selection separate the eventual winners from the inevitable losers. It's important to note, however, that each e-Marketplace is a fragile ecosystem—made up of buyers, sellers, and various intermediaries. As such, the success of each e-Marketplace is dependent on the success of each of its participants. In the pages that follow, we explore the key issues critical for survival—and success.

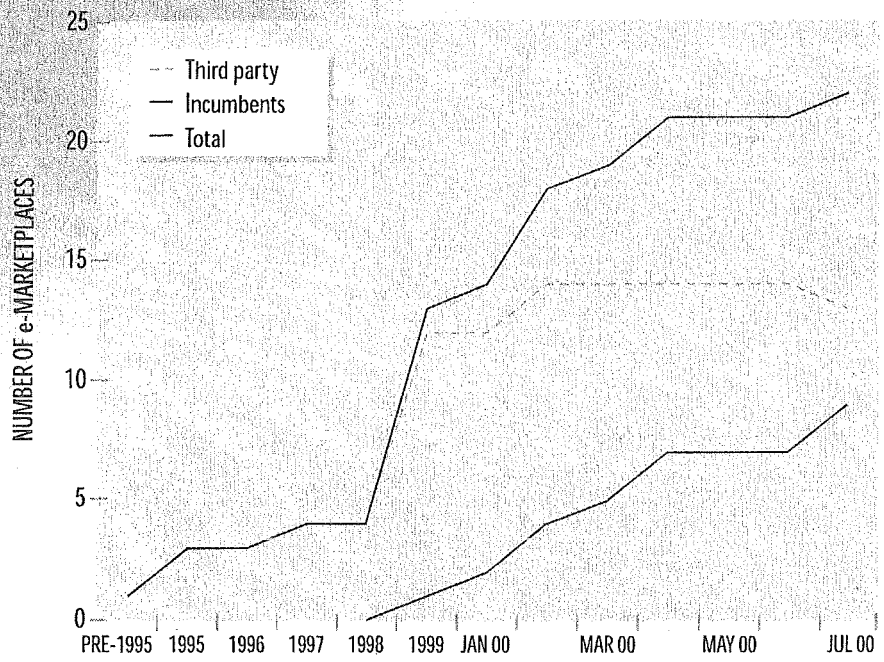


Operating Structure and Ownership

In order to thrive, an e-Marketplace must attract and retain participants and their transactions in a competitive environment. Early on, it seemed that third-party e-Marketplaces had an insurmountable lead over their brick-and-mortar rivals. They were fast out of the gate and naturally independent. All participants could be assured that a level playing field existed and that power would not be skewed toward one side of the transaction. Several of the publicly traded e-Marketplaces attained enviable valuations.

But the story did not end there – at least in industries where power is concentrated in the hands of a small group of large companies. In these industries, such as Aerospace and Defense and Automotive, brick-and-mortar players came out swinging, joining consortia and launching e-Marketplaces with surprising speed. While lacking the natural neutrality of third-party e-Marketplaces, these industry-backed consortia brought clout and capital. They can control a significant portion of an industry's transactions and channel them through their own e-Marketplaces and persuade other players in the value chain to join. They also have access to ready capital, while third parties now find themselves facing a more illiquid and cautious capital market. However, in order to capitalize on their market-making power, industry consortia e-Marketplaces must find ways to structure and operate their e-Marketplaces so as to guarantee a level playing field to woo transactions.

FIGURE 2. AEROSPACE & DEFENSE e-MARKETPLACE GROWTH



SOURCE: DELOITTE RESEARCH

The evolution of B2B e-Marketplaces in the A&D industry depicts the shift in power from third-party e-Marketplaces to brick-and-mortar led consortia. A large portion of the industry's transactions have been committed to the brick-and-mortar e-Marketplaces and independent third parties are beginning to have difficulty attracting business.

E-Marketplaces, whether third-party or industry consortia backed, must start by choosing a model that fits the industry and the opportunity. Consider the following models:

- **Disintermediary** – An e-Marketplace may take the strategy of eliminating the role of one or more traditional value-chain participants. This model has been adopted by many third-party e-Marketplaces, partly as a value proposition and partly due to the fact that third parties often cannot match the value chain relationships of entrenched players. While this model can bring a real opportunity for savings, it is also risky. It faces a natural resistance since it does not provide a win-win to all participants.
- **Reintermediary** – This model, adopted by some third parties and brick-and-mortar e-Marketplaces, seeks to enhance the value and role of all existing value chain participants in an industry. It often transfers greater responsibility to the very same value chain players (distributors) that disintermediaries seek to cut out. In industries such as Agriculture, this model has an inherent advantage over disintermediation due to its ability to line up greater backing from value chain participants.
- **Utility Provider** – Some third-party e-Marketplaces have chosen a Utility model that does not seek to alter the balance of power or roles in the value chain. Adopting this approach can create value for each player by enhancing information-based processes. Construction industry e-Marketplaces, for example, often employ this model to dramatically improve project efficiencies and timelines by helping value chain participants share and exchange information.
- **Market-maker** – This model is appropriate for industry consortia e-Marketplaces in industries where power is concentrated in a small group of buyers or suppliers. To retain the value of their transactions, powerful buyers will focus their spending through e-Marketplaces where they hold equity. Powerful sellers will focus sales through supplier-led e-Marketplaces to reclaim customer relationships and control of products. These consortia can turn the e-Marketplace into an immediate success by focusing their own trade through it. We expect that the market-making power of large industry consortia will allow them to overtake many of the third parties, and slow overall e-Marketplace growth significantly.

Once a large percentage of an industry's trade is committed to a market-maker, third parties and other smaller consortia e-Marketplaces will have little opportunity to grow revenues. However, as brick-and-mortar industry consortia expand their participation beyond equity holders and begin to build transaction volume, they will have to become independent from the founding members. This will likely require new operating structures with independent management, an independent board, and decision-making processes that are entirely separate from the founding companies. Success will come from making decisions that are based on the e-Marketplaces own requirements rather than on those of its founding members.

Governance

Fiercely competitive industry rivals that have joined together in an uneasy alliance in order to achieve the requisite economies of scale or drive cross-enterprise efficiencies have established many of the most visible, headline-making e-Marketplaces. Here, one of the greatest challenges is setting up the right kind of governance structures and processes. The stakeholders in these new and unproven alliances represent a wide array of business and non-business entities: buyer companies, seller companies, the e-Marketplace entity itself, the FTC (on behalf of consumers), and others. While these constituents have joined together, their interests in e-Marketplace participation are often conflicting, or at least competing. Governance must balance everybody's interests while allowing for the flexibility necessary to navigate the treacherous shoals of external competition.

Buyers and sellers must also have a strong commitment to neutrality, and the business model must reinforce this. For example, earlier this year, industry giant Sears Roebuck & Co. and the Carrefour Group, a France-based international retailer, announced that they were teaming up with Oracle Corp. to launch an Internet marketplace, GlobalNetXchange. What did the combined muscle of Sears and Carrefour bring to this arrangement? Answer: An approximate $80 billion in annual purchases from roughly 50,000 suppliers. But in their search for the largest retailers, Sears and Carrefour met stiff resistance from midwestern giant Target, which saw GlobalNetXchange as little more than a competitive advantage play. Jerry Storch, a senior executive at Target, criticized Sears and Carrefour, saying that their announcement "did not suggest they were sincere about trying to build equal partnerships with other retailers." Subsequently, Target joined WorldWideRetailExchange.

Solid, un-biased governance is required to bring and keep competitors together. On the other hand, Chevron, wary of appearances, was careful to invest only a marginal bit of the e-Marketplace equity when the company made its first steps toward inaugurating its own online marketplace in Petrocosm. Clearly, the line separating solid governance from bad is a fine one, and open to interpretation.

Some considerations to keep in mind:

- An e-Marketplace must maintain independence from any single player or group of players. Aligning the e-Marketplace too closely with particular groups of buyers, sellers, or other stakeholders will stunt the cooperative effort required for growth and success. How does an e-Marketplace present seller information on the goods and services to buyers? How does it set fees? How such questions are answered can often determine whether buyers or suppliers benefit.
- Since the only certainty is change, an e-Marketplace must be flexible enough to respond to internal and external changes. E-Marketplace success will be characterized by the ability to quickly shift direction and to capitalize on innovation. Governance structures must support agility and lightning-quick decision-making (amid what may turn out to be hard-fought boardroom debates).
- An e-Marketplace must effectively resolve disputes among its members, many of whom may be long-standing rivals and not likely to agree on everything. Governance must provide venues for effective mediation and resolution of disputes as well as provide mechanisms and guidelines for addressing competition between the e-Marketplace and its owners. Under what circumstances, for example, should a seller company share its sales leads or customer relationships with the e-Marketplace? (Understandably, the seller will want to shelter its customer relationships to protect exclusivity.)
- Effective management oversight must be in place to ensure that the interests and goals of the members are being met. Governance processes must also set performance criteria to measure management effectiveness and define approaches for improving management performance.
- Governance must be active. Issues can arise suddenly and must be dealt with before they cause irreparable harm. Failure to act decisively can cause stakeholders to get "cold feet" and throw the e-market into the consolidation pool.

Scale

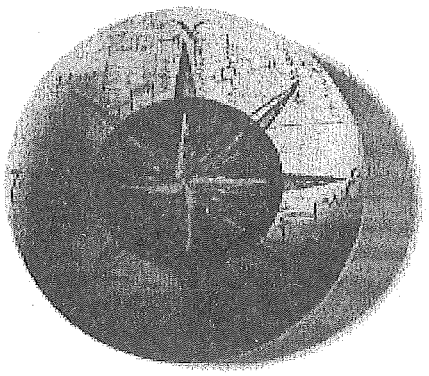
It would be difficult to find an e-Marketplace that will be able to survive or succeed without scale. However, scale cannot exist in a pool of 1,400+ e-Marketplaces (many are going to have to exit the stage). Equilibrium must be attained between the forces of consolidation and fragmentation, and this will vary by industry.

One example of consolidation is Covisint, the automotive trade consortium formed earlier this year by GM, Ford, Daimler-Chrysler, Renault, and Nissan. This e-Marketplace accounts for a significant piece of the automotive industry, (a vast majority of the North American auto industry), and is virtually guaranteed liquidity and success—unless, of course the federal government intervenes. Covisint went straight to the industry scale endgame in a single giant step (More than one analyst has dubbed this game "Winner Take Most," but getting that winner in many industries may be quite painful.) Covisint will enable both automakers and suppliers to achieve significant efficiencies up and down their supply chains. For instance, any last-minute changes to production schedules will quickly resonate throughout the entire supply chain, lessening the need for costly inventory, increasing the company's ability to respond swiftly to any sudden market changes, and allowing buyers and sellers to communicate in a virtual, real-time way.

Scale-wise, other industries have tried to follow Covisint's example. But, few of these brick-and-mortar players will be able to integrate that much of their industry with one stroke. One, Transora.com, in the consumer products industry, is made up of 49 industry players, including Coca-Cola, General Mills, Kraft Foods, Procter & Gamble, PepsiCo, and Unilever. Another, owned by IBP, Cargill, Smithfield Foods, Tyson Foods, Gold Kist, and Farmland Industries, is a yet to be named e-market within the meat and poultry industry. One thing these e-markets can boast is instant liquidity and scale.

Whether the "Winner Takes All" theory applies to the B2B space has yet to be demonstrated. In fact, the winner may simply wind up subject to withering FTC scrutiny. Even so, there are compelling reasons why e-Marketplace scale will provide competitive advantages to those who have it—and threaten those who don't. Our research identified the following key tenets:

- Scale of transactions will be required to remain profitable and survive, as transaction and subscription fees face continual downward pressure.
- Scale facilitates liquidity, which encourages participation and in turn marketplace "stickiness."
- Scale will drive substantial transaction volume as the network effect draws transactions to the leader.
- Scale will allow the e-Marketplace to create value for all participants, not just the owner/members.
- Scale of e-Marketplace product and geographic coverage will be important since many companies will have to join multiple e-Marketplaces to achieve total value chain transformation (since fewer will be the rule, the greater the scale of an e-Marketplace, the better).
- In the quest for scale, look for significant merger and acquisition activity in the future. Within the food/hospitality area, for example, Transora.com is currently competing against approximately 70 other e-markets. Many will inevitably fall by the wayside, at which point Transora.com—or someone else—will no doubt acquire many of those still in the game.



Regulatory Compliance

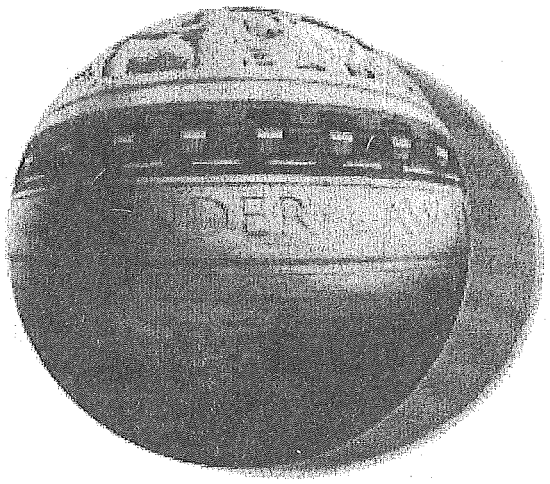
Many companies are rightly concerned about regulation, particularly in light of the well-publicized decision recently handed down in the Microsoft case. The government's concern, naturally, is that intimate relationships among competitors could stack the deck against either suppliers or customers.

Thus far, however, regulatory uncertainty hasn't slowed the proliferation of B2B e-Marketplaces. Even so, the FTC has already issued a reminder: The old rules still apply, and new ones are on the way. Although the FTC has yet to set definite guidelines, they appear to be encouraged by the opportunity for value chain efficiencies that e-Marketplaces might drive.

Some e-Marketplaces—like Covisint and the one that exists in the meat industry—have already attracted FTC scrutiny; others are certain to do the same as a crowded field begins to dissipate. Some of the leading vertical e-Marketplaces have changed strategy mid-race and elected to avoid consortium buying of direct materials, precisely to avoid the likelihood of regulatory scrutiny.

Here are some key regulatory risks to consider:

- Regulatory concerns differ by region of the world.
- Restrictive membership policies can be illegal. In fact if an e-Marketplace becomes the de facto "industry operating system," it must invite all to join.
- Visibility of information should not be used for anticompetitive purposes.
- Rules must apply equally to all members.



Technology

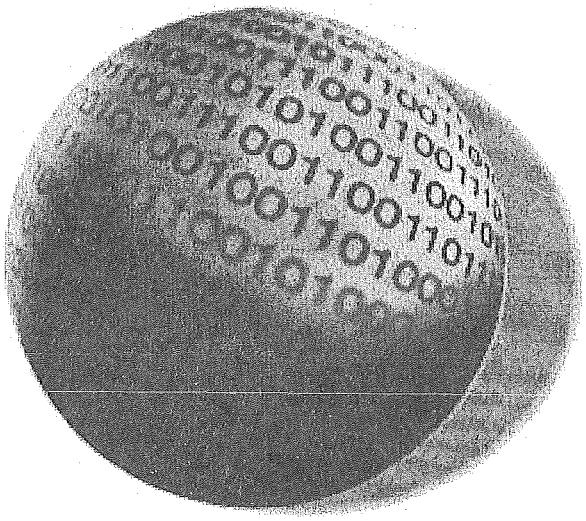
What are the technology issues involved in setting up the right kind of online marketplace?

For instance, a key issue is flexibility. As B2B technology evolves, e-markets must be agile, reflexive, and capable of implementing new technology in a timely manner. In a widespread, wildly unpredictable business world with continually shifting supply networks, the winning e-Marketplaces will be technologically nimble and kinetic.

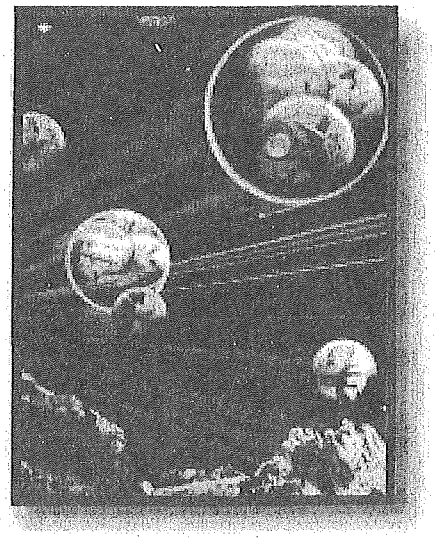
It was technology, after all, that spawned the concept of e-Marketplaces, and no question technology will continue to influence the B2B landscape. A great deal of technology will be required for e-Marketplaces and their members to derive benefits. Each member, as well as the e-Marketplace will have to implement package or custom solutions, including customer relationship management and e-procurement.

Some technology critical success factors:

- The e-Marketplace must take the lead in getting its member companies integrated. That means championing the program, helping member companies make the right IT and other implementation decisions, providing expertise, and facilitating the effort.
- While each member company is likely to have its own unique portfolio of systems, the e-Marketplace must define integration requirements and standards that each member company can move toward. Standards that revolve around specific packages may limit the ability of member companies to integrate (or, at least limit the speed with which they can do so).
- An e-Marketplace with open standards is likely to attract more members over the long term (see discussion of scale above).
- An e-Marketplace with greater depth and uniqueness of connectivity will generate long-term "stickiness". With deeper connectivity, an e-Marketplace can provide more value-added services and allow participants to build and maintain relationships that go beyond commodity transactions. This kind of value-add creates an immediate competitive advantage and will require significant effort and time for a competing e-Marketplace to reproduce.



The Two Year Sprint



So how will the e-Wars saga end? The first casualties are already being sent back from the front. Take B2BeVentures.com, a Palo Alto-based organization that announced a plan to develop and implement more than 300 online B2B vertical exchange portals geared toward vertical industries and professionals. "We envisioned setting up a network of more than 300 B2B hubs to provide industry-specific information, forums, news, shopping and auctions...to bring buyers and sellers together in a B2B marketplace," said VP of Marketing, Joe Sukherman.

But recently, B2BeVentures.com had another announcement to make: The company was ceasing operations, effective immediately.

Here today, gone tomorrow. The e-Marketplace field is enormous and continually expanding. Many players will appear but many more will disappear, as value-creation and industry transformation become the central focus of e-Marketplaces. Fewer, larger e-Marketplaces will be required to realize significant value.

As for the future? Many more e-Marketplaces will fail than succeed. Within two years, only the fittest will survive. With disruptive new technologies like Napster and 'bots emerging, the business may be in for a ride far wilder than Anakin Skywalker's pod race.

B2B is clearly a two year sprint–long and grueling, but in the end highly rewarding. The multi-trillion dollar projections from a variety of industry analysts indicate that B2B is just beginning to hit its stride. E-Marketplaces and B2B participants should adopt a strategic, long-term view that is based on the set of guiding principles discussed in this e-View.

About Deloitte Research

Deloitte Research is a cutting-edge thought leadership group within Deloitte & Touche and Deloitte Consulting. The group provides ongoing research and insight into the critical global and industry-specific issues facing business today. Composed of both consulting practitioners and dedicated research professionals from around the world, Deloitte Research combines industry experience and academic rigor. Our research identifies and analyzes market forces and major strategic, organizational, and technical issues that are changing the dynamics of business, providing insight into new and evolving challenges. For more information and a complete list of our publications, see our Web site at **http://www.dc.com/deloitte_research** or contact the Global Director of Deloitte Research, Ann Baxter at 212.492.4922.

e-VIEW LEADER
ARTHUR A. GRUBB
Deloitte Research
1.212.492.4942
agrubb@dc.com

Recent Deloitte Research Studies and e-Views

e-LEADERSHIP? BEYOND THE HYPE: Perceptions vs. Reality About e-Leadership
BEYOND THE BOUNDARIES: Enhancing Consumer Value in Multi-Channel Markets
ONLINE B2B EXCHANGES: The New Economics of Markets
THE INTERNET-BASED ASP MARKETPLACE: Renaissance of the Online Value-Added Network
MACHINE TO MACHINE e-BUSINESS: Information Systems Meet Electric Systems
NEW ECONOMICS OF TRANSACTIONS: Evolution of Unique Internet Marketspaces
DOT.COM AFTERMARKET: Where Does the Value Lie and How Can It Be Captured?
REINVENTING FINANCIAL SERVICES BUSINESS MODELS: Winning Market Plays

To order Deloitte Research publications, please visit our Web site at www.dc.com/deloitte_research or contact us at: Tel: 212.492.3791, Fax: 212.492.3880, or delresearch@dc.com.

For more information

For additional information about our B2B tracking indices (overall or by industry), please contact:

LEN PROKOPETS
Deloitte Consulting
1.203.708.4160
lprokopets@dc.com

SHAUN GREENE
Deloitte Consulting
1.916.288.3126
sgreene@dc.com

About Deloitte Consulting and Deloitte & Touche

Deloitte Consulting is one of the world's leading e-Business consulting firms, providing services in all aspects of enterprise transformation, from strategy and processes to information technology and human resources. Deloitte & Touche, one of the nation's leading professional services firms, provides assurance and advisory, tax, and management consulting services through over 30,000 people. Deloitte Consulting and Deloitte & Touche are parts of Deloitte Touche Tohmatsu, one of the world's leading professional services firms, delivering world-class assurance and advisory, tax, and consulting services. More than 90,000 people in over 130 countries serve nearly one-fifth of the world's largest companies as well as large national enterprises, public institutions, and successful fast-growing companies. Our internationally experienced professionals deliver seamless, consistent services wherever our clients operate. Our mission is to help our clients and our people excel.

Deloitte Consulting

A very different approach.
For very different results.

Deloitte & Touche

e-BUSINESS

CATHY BENKO
Deloitte Consulting
1.650.524.4132
cbenko@dc.com

JOHN CHRISTENSEN
Deloitte Consulting
1.408.795.4630
jbchristensen@dc.com

PETER GLOOR
Deloitte Consulting
44.1.318.7102
pgloor@dc.com

GILBERT TOPPIN
Deloitte Consulting
44.207.303.6395
gtoppin@dc.com

GRAHAM BARAGWANATH
Deloitte Consulting
852.2541.1911
gbaragwanath@dc.com

DAVID DOWLING
Deloitte Consulting
61.3.9208.7189
ddowling@dc.com

GEORG TRANKLE
Deloitte Consulting
27.11.806.5403
gtrankle@dc.com

ANNE TAYLOR
Deloitte & Touche
1.212.436.2631
ataylor@deloitte.com

FRANK FRIEDMAN
Deloitte & Touche
1.816.881.5102
ffriedman@deloitte.com

ROGER IHNE
Deloitte & Touche
1.713.982.2339
rihne@deloitte.com

B2B

JOHN CHRISTENSEN
Deloitte Consulting
1.408.795.4630
jbchristensen@dc.com

JOHN FERREIRA
Deloitte Consulting
1.203.708.4173
jferreira@dc.com

© 2000 Deloitte Consulting (Global) LP and Deloitte & Touche. All rights reserved.
Deloitte & Touche refers to Deloitte & Touche LLP, Deloitte Consulting and related entities.
ISBN 1-892383-61-6