

B2B Exchanges: Future Hopes, Current Doubts

Booz·Allen & Hamilton and Giga Information Group

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Executive Summary

E-markets play a central role in business thinking and strategy development for business-to-business (B2B) e-commerce. Business attitudes toward e-markets, however, have been shifting and remain ambivalent. Three years or so ago, entrepreneurs and businesses first became interested in public e-markets as an attractive way to connect companies with their suppliers or business customers. Dozens of independent public e-markets were launched — and thousands proposed — to capture this business interest. Two years ago, many large companies became nervous about the concept of such central, industrywide venues operating under the ownership of a new independent company. Their response was to create public industry-specific e-markets owned by consortia of companies in that industry. Then, a year ago, businesses started to get concerned that public e-markets might somehow interfere with the relationships between businesses and their customers — that they will eliminate competitive advantages the businesses enjoy in their supply chain, or will never become reliable or secure enough to provide a sound foundation for valuable partner relationships. As a result, many companies have created private e-markets that they operate either individually or with a handful of partners to facilitate online interactions with suppliers and/or customers. Still, all three of types of e-markets coexist uneasily and compete with one another for corporate mindshare.

With these forces pushing and pulling on e-markets, the perspective of how businesses regard e-markets is confused. To clarify this picture, in the summer of 2001 Booz · Allen & Hamilton and Giga Information Group jointly conducted a survey of leading companies on their experiences with and expectations for e-markets. The bottom line of these survey results is that most companies are still caught between hope of future benefits and disappointment with the performance to date. Indeed, an overwhelming majority of the respondents believe exchanges so far have not met or only partially met their needs. There was also a wide disconnect between the benefits companies expect from exchanges and the services currently offered. Still, companies acknowledged that not only will e-markets have to mature, but companies will also have to change their organizations and reevaluate current processes/behaviors to truly benefit from the services exchanges offer.

The Giga/Booz · Allen & Hamilton survey shows that, in spite of the challenges, companies expect to conduct the bulk of their direct materials and indirect materials spending through exchanges within three years. Private exchanges, consortia public exchanges and independent public exchanges largely will divide the transaction flow. The same companies also expect to use exchanges for collaborative supply chain management, for collaborative product development and for customer relationship management (CRM). Creating a portfolio of exchanges — as opposed to finding or building one exchange that meets all needs — appears to be the best strategic choice to satisfy each particular business demand. The technology development that could most impact the use of exchanges is widespread adoption of new communications technologies, such as Extensible Markup Language (XML).

Key Findings and Outlook From the Survey

Among the key findings of the survey:

- Exchanges generally have not met the expectations of their users. Nearly half of the respondents to the Giga/Booz · Allen & Hamilton survey reported that exchanges have “mostly” or “absolutely” failed to meet their expectations.
- Chief executives have been driving exchange activities and, in doing so, have limited the autonomy of business units. CEOs’ choices often have been driven by strategic purpose (i.e., our competitors have joined so we have to keep up, we can’t afford to not participate in a consortia,

etc.). The operational managers who could make more informed evaluations of the benefits and limits of exchanges often have been involved later in the decision-making process.

- Exchanges are expected to address many business needs, especially improving profitability and creating more standardized business practices.
- Most respondents expect the primary benefits of exchanges to be reduced costs, improved forecasting, improved CRM and reduced product development cycle time.
- The type of exchange (consortia public, independent public, private) best suited to deliver benefits depends on the business activity. Companies seem most interested in using consortia public exchanges for procurement activities, private exchanges for supply chain planning and forecasting as well as product design and development, and independent public exchanges for developing new sales channels.
- Participation in exchanges may mandate organizational changes, including standardizing policies, developing new procedures and introducing integration technology. Companies can also expect to have to upgrade their technology infrastructure, retrain their personnel and create or expand their e-business group.
- Exchanges are expected to improve the process efficiency of organizations and will require more specialized skills and increased interaction with customers and suppliers.
- Problems companies expect to encounter with exchanges include internal resistance to new business models, disorganized processes, limited supplier or customer participation, benefits that are hard to evaluate, high startup costs and back-office integration issues.
- Companies expect that exchanges will account for a greater portion of business spending in the next three years, despite the presence of numerous organizational and financial roadblocks.
- All types of exchange services are expected to grow in the next three years. The use of private exchanges is expected to grow the most for product development and CRM, and consortia public exchanges will grow the most in supply chain collaboration.
- The development and widespread adoption of new communications technologies, like XML, will likely have a great impact on exchange use planning.

The Survey

Goals of Survey

To better understand business attitudes toward e-markets, Booz · Allen & Hamilton and Giga Information Group conducted a survey among their respective clients. In the summer of 2001, the two organizations sent a comprehensive six-page survey to approximately 1,000 companies. The program was designed to capture a users' perspectives of the benefits of exchanges are truly realized as well as insight on how exchanges will change the way businesses interact with one another.

The survey covered the following topics:

- Benefits: True exchange benefactors
- Organization: Changes necessary to take full advantage of the exchange potential
- Industry: How will industries change due to exchanges and what challenges exist
- Outlook: Future role of exchanges within companies (issues faced today and how exchanges can help solve them)
- Technology: Impact of new technologies and services

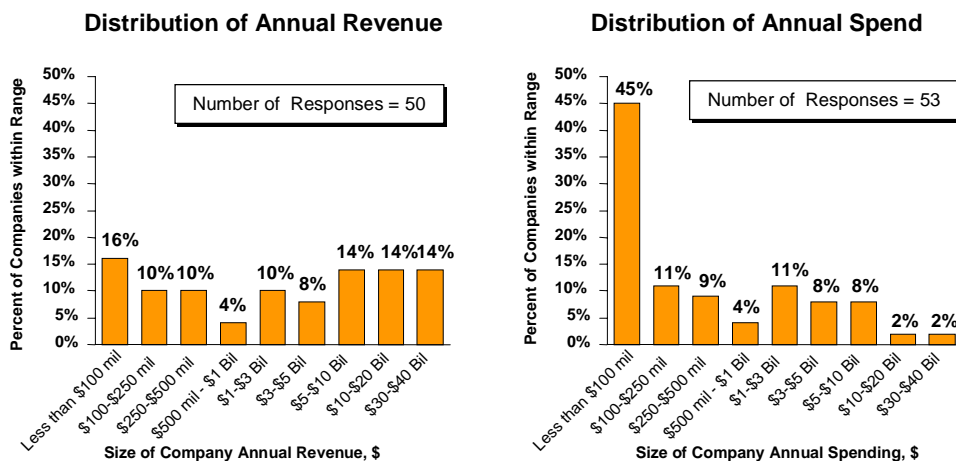
The mailing generated approximately 60 responses — about a 6 percent response rate that was sufficiently large to draw some meaningful conclusions.

Participating Companies

Size of Company

Most (60 percent) companies surveyed are large companies, with more than \$1 billion in revenues. Twenty-four percent are midsize companies (revenues from \$100 million to \$1 billion) and 16 percent are small companies (less than \$100 million in annual revenues). More than half (55 percent) of the companies surveyed have an annual spend of more than \$100 million — a figure that includes direct, indirect and capital expenditures. Thirty-one percent of those surveyed spend more than \$1 billion a year (see Figure 1).

Figure 1: Profile of Companies Surveyed



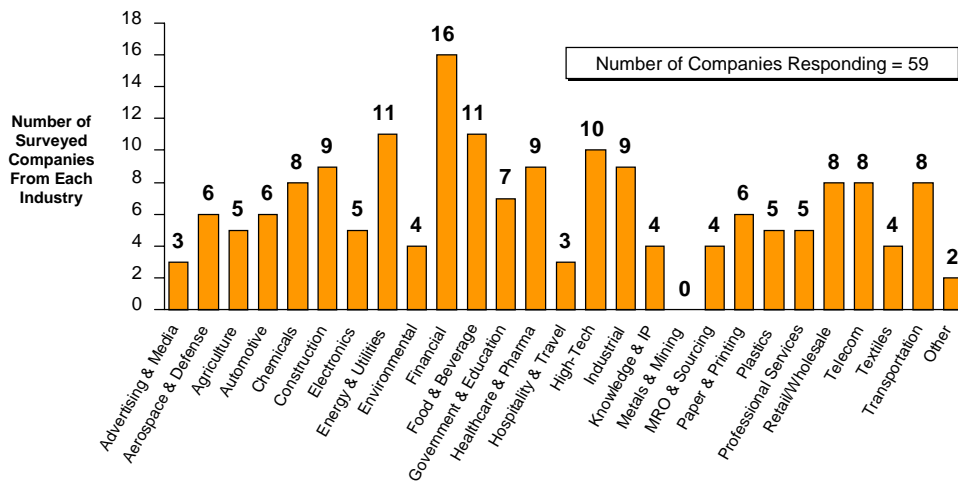
Source: Giga Information Group / Booz · Allen & Hamilton

Industry Representation

A wide range of industries was represented in this survey. Industry coverage includes advertising and media, aerospace and defense, agriculture, automotive, chemicals, construction, electronics, energy and utilities, environmental, financial, food and beverage, government and education, health care and pharmaceuticals, hospitality and travel, high tech, industrial, knowledge and intellectual property, maintenance, repairs and operations (MRO) and sourcing, paper and printing, plastics, professional services, retail and wholesale, telecommunications, textiles and transportation.

Among these industries, the financial industry has the highest representation in our survey, with 16 out of 59 (27 percent) of companies surveyed. The closest runners-up are energy/utilities and food/beverage (both 11 companies, 19 percent) (see Figure 2).

Figure 2: Industry Representation in the Survey



Source: Giga Information Group / Booz · Allen & Hamilton

Survey Findings

Background

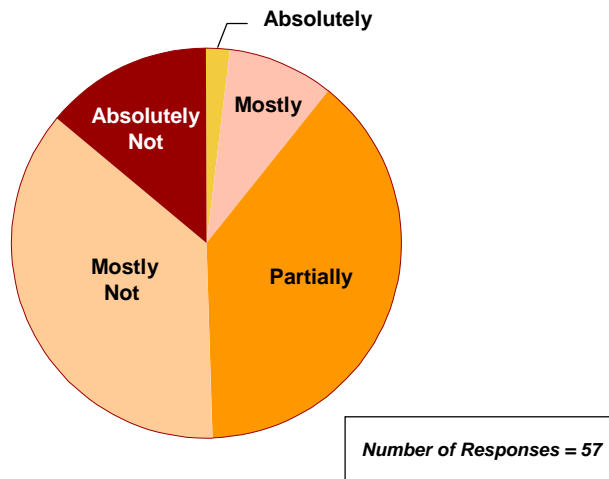
Booz · Allen & Hamilton and Giga Information Group asked survey respondents about:

- Their current view of exchanges
- Their overall exchange experience
- The executives driving their company's exchange strategy
- The freedom of individual business units to choose which exchanges they use
- How they would classify their exchange use
- How well initial expectations had been realized

Exchanges Often Have Not Met User Expectations

Booz · Allen & Hamilton and Giga Information Group asked survey participants whether exchanges were meeting their expectations. Only about 10 percent said exchanges were “absolutely” or “mostly” meeting expectations. Another 40 percent said exchanges were “partially” meeting expectations. About half said exchanges were “absolutely not” or “mostly not” meeting expectations (see Figure 3).

Figure 3: Users' Opinions of How Well Exchanges Have Met Their Expectations



Source: Giga Information Group / Booz · Allen & Hamilton

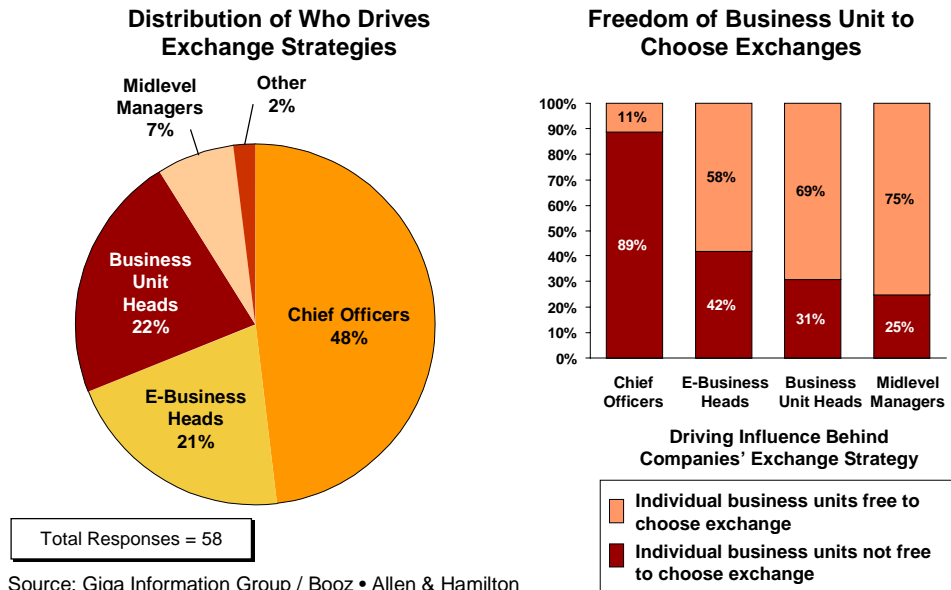
Chief Executives Drive Exchange Activities, Limiting Autonomy of Business Units

Booz · Allen & Hamilton and Giga Information Group asked survey participants who drove their company's exchange strategy. In 48 percent of companies surveyed, chief officers drive the exchange strategy. In 21 percent of companies, e-business heads direct this strategy; in 22 percent of companies, business unit heads take the lead. In only a small (7 percent) number of companies do midlevel managers make these decisions.

CEOs Limit Autonomy of Business Units

Booz · Allen & Hamilton and Giga Information Group found a correlation between the level at which exchange strategy decisions are made and whether or not individual business units have the freedom to choose which exchanges they use. The survey found there was more autonomy in those companies where lower-level managers were charged with directing the business-to-business (B2B) programs. In 89 percent of the companies in which chief officers are the driving influence, individual business units said that they are not free to choose exchanges. Individual business unit heads felt free to choose exchanges 58 percent of time when e-business heads were responsible for exchange activities, 69 percent of time when business unit heads were in charge and 75 percent of time when midlevel managers directed the exchange strategy (see Figure 4).

Figure 4: The Role of the CEO in Exchange Strategies



Benefits of Exchanges

Booz · Allen & Hamilton and Giga Information Group asked survey respondents:

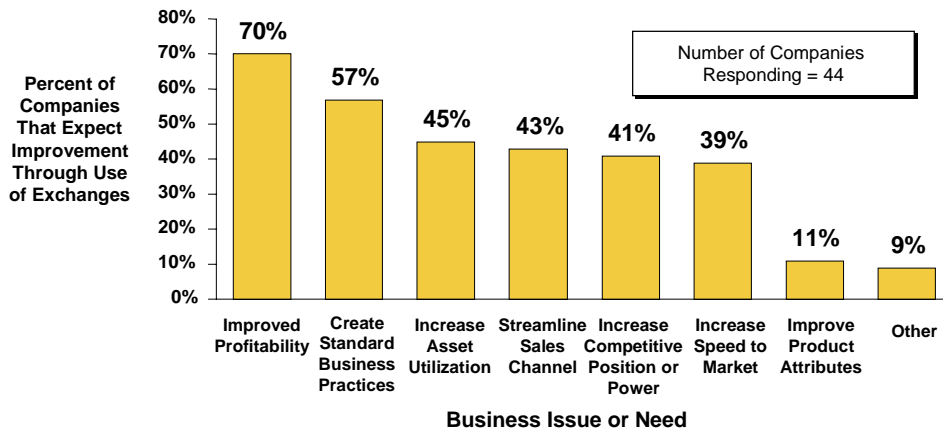
- What business needs do they expect exchanges to help them address?
- Which type of exchange is best suited to deliver the benefits they expect from exchanges?
- Which competitors will experience benefits similar to the ones they expect?
- How willing are they to pay for services (e.g., procurement, supply chain management, collaboration, trade/customer management)?
- How much are they currently spending on their exchanges engagements?
- What percentage (increase or decrease) in operating profit do they expect to realize due to exchanges?
- What percentage of the total benefits created by exchanges do they specifically expect to capture?

- How are they addressing strategic spend (goods and services that give them a competitive advantage) routed through exchanges?

Exchanges Are Expected to Address a Variety of Business Needs

When Booz · Allen & Hamilton and Giga Information Group asked survey participants what benefits they expect from exchanges, more than half replied they expect exchanges to help improve profitability and create standard business practices. Nearly half of all companies surveyed expect exchanges to increase asset utilization, streamline sales channels and increase competitive position or power. Thirty-nine percent expect exchanges to increase speed to market. Fewer (11 percent) expect exchanges to improve product attributes (see Figure 5).

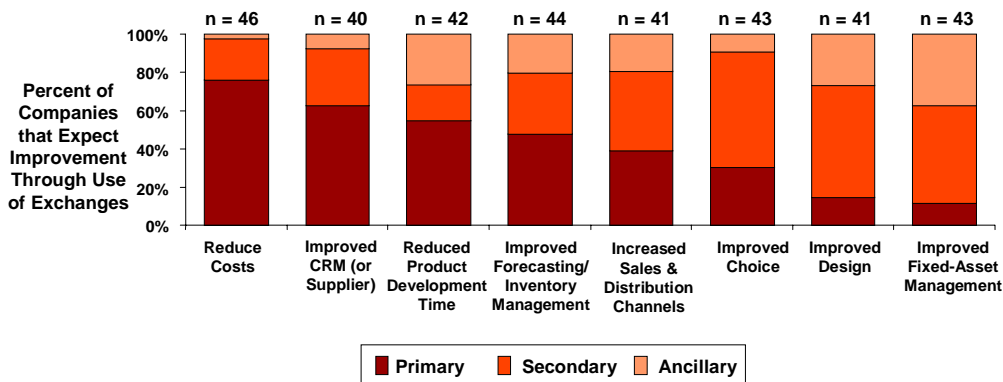
Figure 5: Needs and Issues Exchanges Are Expected to Help Address



Source: Giga Information Group / Booz · Allen & Hamilton

At least half of survey respondents expect the primary benefits to be reduced costs, improved forecasting and inventory management, as well as reduced product development cycle time. In contrast, few companies expect the primary benefits to be improved fixed asset management or improved design (see Figure 6).

Figure 6: Business Activities Where Primary Exchange Benefits Expected



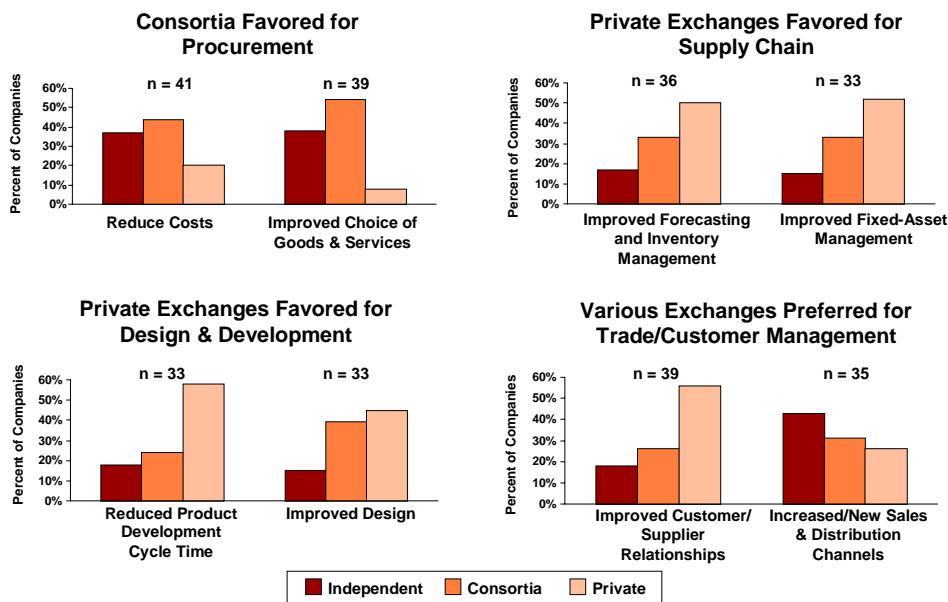
Source: Giga Information Group / Booz · Allen & Hamilton

Business Activity Determines Which Exchange Model Is Best Able to Deliver Benefits

Booz · Allen & Hamilton and Giga Information Group asked survey participants which type of exchange is best suited to deliver the business benefits they seek:

- The consortia public model, in which industry players own equity in the exchange, is favored for procurement (e.g., information, search/sourcing, catalog, auction, transactions, spot market) (see Figure 7). Nearly half the companies surveyed expect the consortia model to enable them to reduce costs and more than half expect the model to improve their choices or selection of goods and services. Few companies expect private exchanges to be able to deliver procurement benefits.
- Private exchanges, which are operated by an individual company, are favored for supply chain management activities (forecasting, supplier qualification, resource planning, logistics, dynamic pricing, strategy support) as well as for design collaboration. About half the survey respondents expect private exchanges to improve forecasting and inventory management and improve fixed asset management. More than half expect private exchanges to reduce product development cycle time and almost half expect them to improve their product designs. Few companies expect that independent exchanges, in which a neutral party operates the exchange and the exchange is open to any party, can deliver comparable benefits in the areas of supply chain and design collaboration.
- Various exchange models are expected to provide benefits in trade/customer management (direct sales, channel support, customer support). About half the survey respondents expect private exchanges to improve customer- and supplier relationship management, whereas fewer than 20 percent expect this benefit from independent exchanges. But independent public exchanges are viewed by more than 40 percent of respondents as the most likely place for gaining increased or new sales and distribution channels.

Figure 7: Matching Exchange Type Against Benefit Potential



Source: Giga Information Group / Booz · Allen & Hamilton

Organizational Change

Booz · Allen & Hamilton and Giga Information Group asked survey respondents:

- What organizational changes need to be made to capture benefits from exchanges?
- What is the single greatest change their company will make in preparing to use exchanges?
- What is the biggest organizational obstacle to maximizing the benefits of exchanges?
- What impact will exchanges make on their organization?
- What is the single greatest impact their company will experience from using exchanges?
- Is their company well positioned to benefit from exchanges?

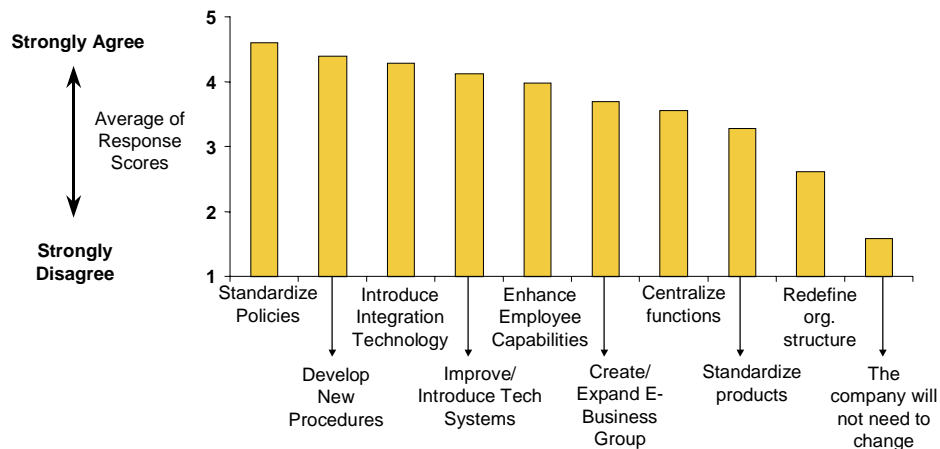
Strong Agreement That Organizational Change Is Needed

Companies surveyed agree that organizational change is required to gain benefit from exchanges. They agree strongly that they need to make the following organizational changes to capture benefits from exchanges:

- Standardize procedures
- Develop new procedures
- Improve/introduce technology systems
- Introduce integration technology

On a scale of 1 to 5, with 5 being “strongly agree,” each area received, on average, a rating of between 4 and 5 (see Figure 8).

Figure 8: Organizational Changes Required to Capture Exchange Benefits



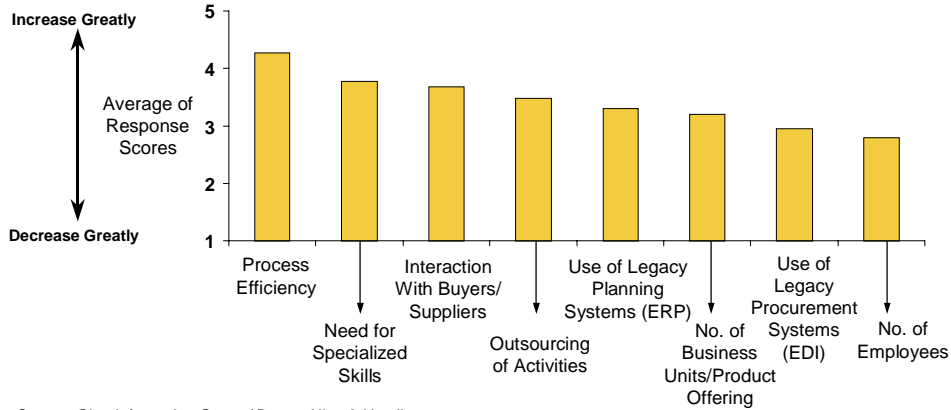
Source: Giga Information Group / Booz · Allen & Hamilton

Impact of Exchanges on Organizations

According to the results of the survey, companies expect exchanges to have an impact on their organizations in a number of ways. Process efficiency, need for specialized skills and interaction with buyers/suppliers are expected to increase. Outsourcing, use of legacy planning systems (enterprise

resource planning — ERP), and the number of business units/product offerings are expected to increase slightly or remain the same. Use of legacy procurement systems (electronic data interchange — EDI) and the number of employees are expected to remain the same or decrease slightly (see Figure 9).

Figure 9: Requirements for Success From Exchanges/Organizational Impact of Exchanges



Source: Giga Information Group / Booz · Allen & Hamilton

Industry Challenges

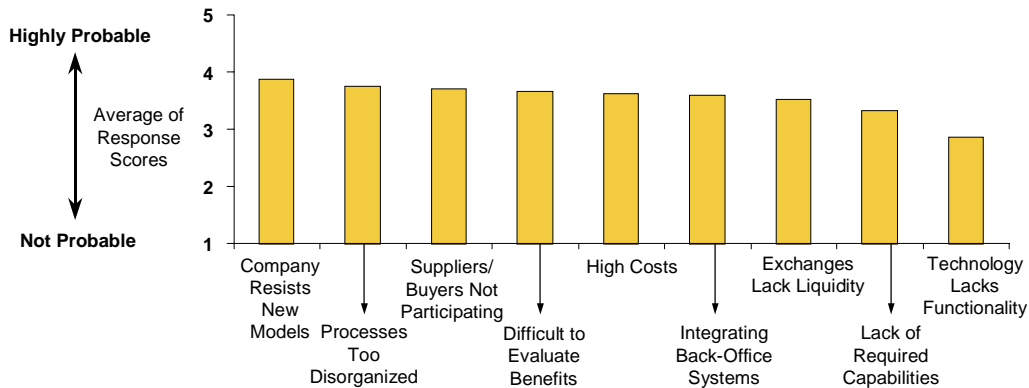
Booz · Allen & Hamilton and Giga Information Group asked survey respondents:

- What impact will exchanges have on their industry; how will their industry evolve?
- What is the single greatest change their industry will experience from using exchanges?
- Is their industry well suited for the use of exchanges?

Industries Expect to Face Many Problems in Using Exchanges

On a scale of 1 to 5 (1 being “not probable” and 5 being “highly probable”), survey respondents assigned values of between 3 and 4 to all problems listed in the survey, with the exception of “technology lacks functionality.” Companies expect to face such problems as resistance to new models, disorganized processes, lack of buyer or supplier participation, difficulty evaluating benefits, high costs, back-office systems integration, lack of exchange liquidity and lack of required capabilities (see Figure 10).

Figure 10: Challenges Expected in Establishing and Using Exchanges



Source: Giga Information Group / Booz · Allen & Hamilton

Outlook

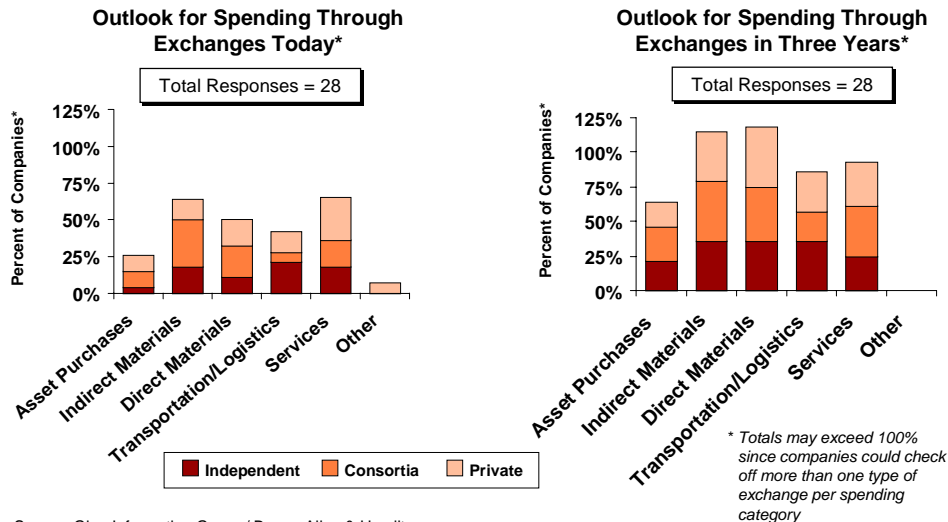
Booz · Allen & Hamilton and Giga Information Group asked survey respondents:

- What are the reasons for choosing one type of exchange over another?
- Which exchanges do they use?
- What percentage of their spending will be routed through exchanges?
- What percentage of their sales will be generated by exchanges?
- What type of spending will be routed through the exchanges?
- Which exchange services will they use?
- What savings do they expect to realize on spending routed through exchanges?
- What type of exchange will they use?
- Have they had any failed experiences with exchanges?

More Business Spending via Exchanges in Next Three Years

Between 50 percent and 75 percent of the survey respondents currently purchase indirect materials and services through exchanges. Most use consortia exchanges to purchase indirect materials and private exchanges to purchase services. About half the survey respondents purchase direct materials through exchanges, primarily consortia and private exchanges. Between 25 percent and 50 percent of companies purchase transportation and logistics services through exchanges, with independent exchanges being the ones most commonly used. Fewer than 25 percent of companies surveyed purchase assets via exchanges. Consortia and private exchanges are the primary vehicles for such asset purchases (see Figure 11).

Figure 11: Expected Business Spending Through Exchanges

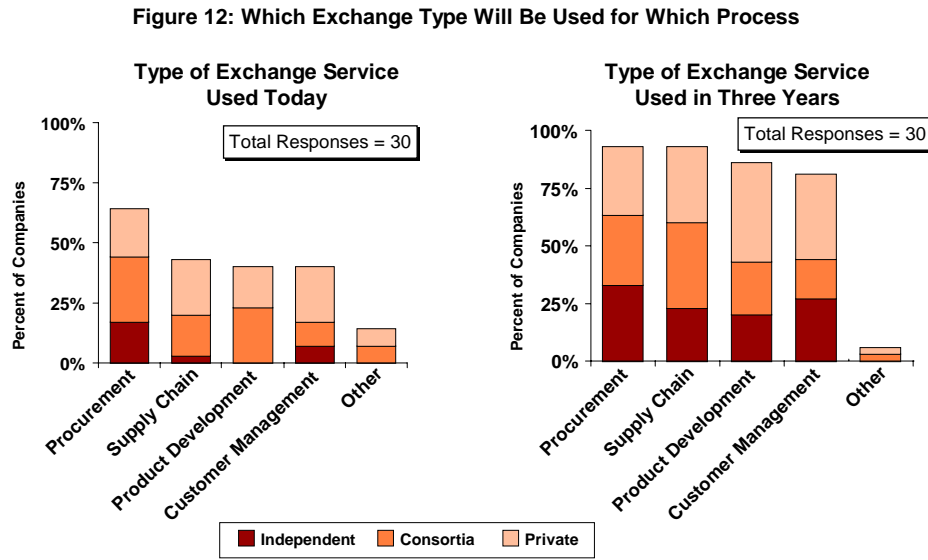


Source: Giga Information Group / Booz · Allen & Hamilton

In all areas — asset purchases, indirect materials, direct materials, transportation/logistics and services — more companies expect to increase the percentage of spending that goes through exchanges. Indirect materials and direct materials are the areas of greatest growth.

Use of Private Exchanges Will Grow the Most

While the use of all types of exchange services (e.g., procurement, supply chain management, collaboration and trade/customer management) is anticipated to grow in the next three years, the use of private exchanges is expected to grow the most (see Figure 12).

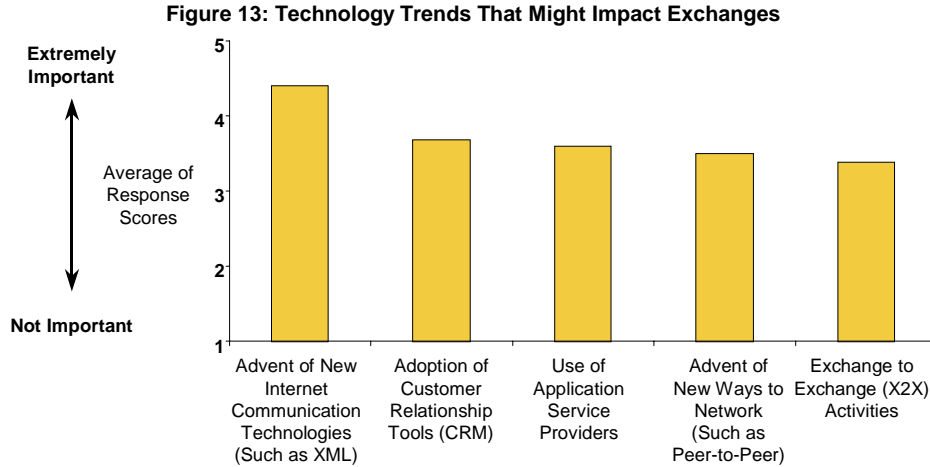


Source: Giga Information Group / Booz · Allen & Hamilton

The Most Important Trend for Exchanges Is New Internet Communication Technology

Respondents said the most important trend that could impact exchanges would be the advent of new Internet communication technologies, such as XML. Widespread XML adoption could affect exchanges in two conflicting ways: It could make it easier for companies to integrate and interact directly with each other, reducing the need for exchanges, or it could make it easier for companies to integrate with exchanges, making exchanges more viable if they can provide services that are best offered on a multilateral basis.

Other trends seen as having lesser impacts on exchanges were widespread adoption of CRM tools (a negative for public exchanges), wider use of the application service provider model for software deployment (a positive for exchanges), adoption of peer-to-peer networks (a negative for exchanges) and improved exchange-to-exchange activities (a positive for exchanges) (see Figure 13).



Source: Giga Information Group / Booz · Allen & Hamilton

Conclusions

The results of this survey by Booz · Allen & Hamilton and Giga Information Group are a snapshot in time of business attitudes. Views of exchanges have been shifted rapidly in the past two years. Companies are trying to come to terms with the threats and opportunities posed by these new intermediaries. The exchanges themselves are struggling to find a footing in the business world.

We believe the preferences for private exchanges expressed in this survey may change as companies try to get suppliers and customers to participate — and keep participating — in their own private exchange. We also think attitudes toward consortia public exchanges may turn more positive as some of the leading exchanges start to gain transaction liquidity and traction with their collaborative services.

No matter what changes lie in store, the picture painted by the survey respondents of coexisting consortia public exchanges, independent public exchanges and private exchanges is an accurate one. While there are no clear winners here, different models will work for different companies and for different types of intercompany interactions and transactions.