

B2B E-Business

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INTRODUCTION

Every organization can be viewed from two perspectives. There are external processes such as procurement and sales, and internal processes such as management and operations, finance, marketing, and human resources.

This article primarily focuses on external, commercial e-business processes. B2B (business-to-business) e-business is the sale of products or services, or information exchange, among two or more businesses through electronic technology, usually involving the Internet, through a public or private exchange. The following background section gives a very brief general overview of B2B e-business history. In the main thrust of this article, we discuss making the B2B decision by examining key B2B business requirements and benefits, as well as describing basic approaches to B2B e-business implementation. In the subsequent section, the article provides a future outlook for e-business.

BACKGROUND

During the technological explosion of the late 1990s, virtually every company in the world was talking about B2B. The concept was sound and the possibilities were endless, so many companies rushed into implementing something, anything that would make them part of this new business revolution. As often happens when concepts are implemented, many unforeseen problems arise during the early stages of their application. Although the development of B2B e-business has provided opportunities for organizations to improve their purchasing systems and so enhance performance and profitability, it is not the magic solution once believed, but rather just another useful business tool when implemented under the right circumstances.

Despite the burst of the dot.com bubble and the global recession, online B2B trading exchanges continue to expand. Online B2B e-marketplaces have remained resil-

ient by providing valuable advantages over off-line transactions, including lower costs for buyers, greater access to customers for suppliers, and increased transparency throughout the supply chain for all participants (Krell, 2002). For example, members of the WorldWide Retail Exchange, an online B2B exchange, have saved over \$1 billion since 2000 when the exchange was founded ("Survey," 2004).

Internet-based B2B e-business tools help companies master a multitude of objectives, ranging from reducing raw material, process, and transaction costs as well as cycle times, error rates, and inventory, and it improves transparency (Hartman, Salehi, & Vallerien, 2003).

In 2001, B2B e-business represented about one third of all e-business volume on the Internet, but it was expected to grow at an accelerated rate and eventually become the largest segment of e-business.

MAIN THRUST OF THE ARTICLE

Before the appropriate B2B e-business implementation approach can be determined, a company needs to identify key business requirements and benefits. Once this has been established, the company can then choose from various implementation approaches the one that fits the determined requirements and benefits. The B2B implementation approaches discussed in this article have been derived from researching thoroughly company experiences as well as theoretical studies. Based on these experiences and studies, the ways companies have targeted their B2B implementation endeavors can be grouped into four basic approaches, which will be discussed later in this section.

Identifying Key Business Requirements and Benefits

Planning is the first step to the successful application of any e-business strategy. A company needs to identify

key or core business processes in its specific company situation, and the benefits to be derived from e-business B2B applications within these key processes. A well-designed B2B e-business system can be extremely valuable in achieving basic strategic management objectives in many different areas of profit-generating enterprises including increasing efficiency and reducing costs, improving management control, and expanding revenues.

Improve Purchasing Efficiency and Reduce Procurement Costs

This was initially and continues to be a major application area for B2B. Procurement in its conventional form is a costly, labor-intensive, paper-based process. Purchasing personnel often complain that a high percentage of their time is spent on non-value-added activities such as data entry, correcting paperwork errors, expediting delivery, or solving quality problems. Managing supply chains through public or private online B2B exchanges enables companies to (a) directly improve their order-to-fulfillment cycle by streamlining work-flow and business processes so as to achieve better order processing and tracking, (b) better leverage company spending and increase return on investment, and (c) ultimately optimize overall procurement efficiency. This can literally save a company millions of dollars.

For example, Unilever, a major consumer-products company, was able to cut \$902 million in procurement costs over a 2-year period, and by the end of 2002, was expected to have achieved more than \$1.58 billion in total savings from procurement efficiencies with its new B2B system. These improvements were achieved through Unilever's replacement of a hodgepodge of procurement systems in use across dozens of product divisions with standardized e-procurement, online-auction purchasing management, and demand-planning systems (Hicks, 2002).

Improve Overall Controls

The information exchanged among companies and their suppliers through B2B portals creates a strategic partnership environment that identifies and builds partnerships with new suppliers worldwide, strengthens relationships and streamlines sourcing processes with current business partners, and rapidly distributes information and specifications to business partners. Internet-based buy sites enable companies to manage inventory levels more efficiently by providing access to demand levels through B2B portals. Through B2B exchanges, companies can receive rapid responses, shorten fulfillment cycles, and implement just-in-time procurement strategies, which help reduce lag times and allow companies to more effectively

control inventory levels and so carry less inventory reserves on hand.

A good example of this is Cisco Systems. The sharing of information between Cisco Systems, a large Internet product provider company, and its suppliers on customer demand, product defect rates, and engineering reportedly enabled them to substantially reduce manufacturing re-cycle times and build better products (Corbitt, 2002).

Expand Revenues

The public exchange of information provided through B2B exchanges has allowed many companies that sell to other companies to reach a greater number of potential commercial buyers of their products, which has led to increased sales. It also provides greater visibility between customers and suppliers. Web exchanges enable customers and suppliers to peer into one another's operations via a secure Internet connection, and decrease the suppliers' time to market with new products. Also, sellers gain instant access to global buyers, with over \$1 billion in purchasing power.

B2B E-Business Implementation Approaches

There are four general B2B implementation approaches in use. The first is independent B2B marketplaces, such as Commerce One, Ariba, and Freemarkets. The second approach discussed is the private B2B approach, such as the one found at Unilever and Cisco. A third commonly encountered B2B implementation approach involves consortiums, as have been formed in the auto, aviation, chemical and petroleum, building-materials, aerospace, and retailing industries. There is a fourth, transitional approach that was implemented by GE (General Electric), for example.

Independent B2B Marketplaces

The first approach discussed, which involves an existing company finding an independent B2B marketplace (e-marketplace), is a commonly encountered one. Many companies begin the B2B integration process by focusing on the purchasing cycle. Obtaining goods from suppliers using independent B2B marketplaces very often is the fastest and most economical way to acquire B2B capabilities. This is done by selecting an independent B2B provider, such as Commerce One, Ariba, or Freemarkets, to come in and integrate the company's internal systems with the selected independent market exchanges (e-marketplace).

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