

BUSINESS-TO-BUSINESS ELECTRONIC COMMERCE

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Introduction

The Internet is the most important business tool of the new century. In the few short years Web-based technology has already had an enormous impact on consumers and business around the world. E-business accomplishes three stages: e-commerce, e-business and e-partnering. The early stages of a company's e-business activity are almost always focused on reaching the customer, the later stages on streamlining value-chain activities to deliver more value to the customer.

E-commerce is the process of buying and selling goods and services electronically involving transactions using the Internet, networks and other digital technologies. E-commerce allows these purchases and sales transactions to occur with minimal disruption to organizational culture and business processes. E-commerce includes the e-storefront and e-catalog, e-billing and e-payment, and rudimentary forms of e-procurement.

There are various types of e-commerce, depending on the transaction: Business to Business (B2B), Business to Consumer (B2C), Consumer to Business (C2B) and Consumer to Consumer (C2C). In addition, there are Government to Business (G2B) and Government to Consumer (G2C) e-commerce. Many believe that the most promising area of e-commerce is not retailing to individuals but the automation of purchase and sale transactions from business to business.

Figure 1 depicts e-commerce information flows. Individuals can purchase goods and services electronically from online retailers, who can use e-commerce technologies to link directly to their suppliers or distributors.

Electronic data interchange (EDI) is one technology that has enabled B2B e-commerce for many years. For a number of years, companies have used proprietary EDI systems and e-mail for this purpose. EDI lets businesses exchange critical information on payments, products, services, or logistics over special telephone lines or leased data lines. The cost of EDI connections is high, so only the largest businesses can afford this system.

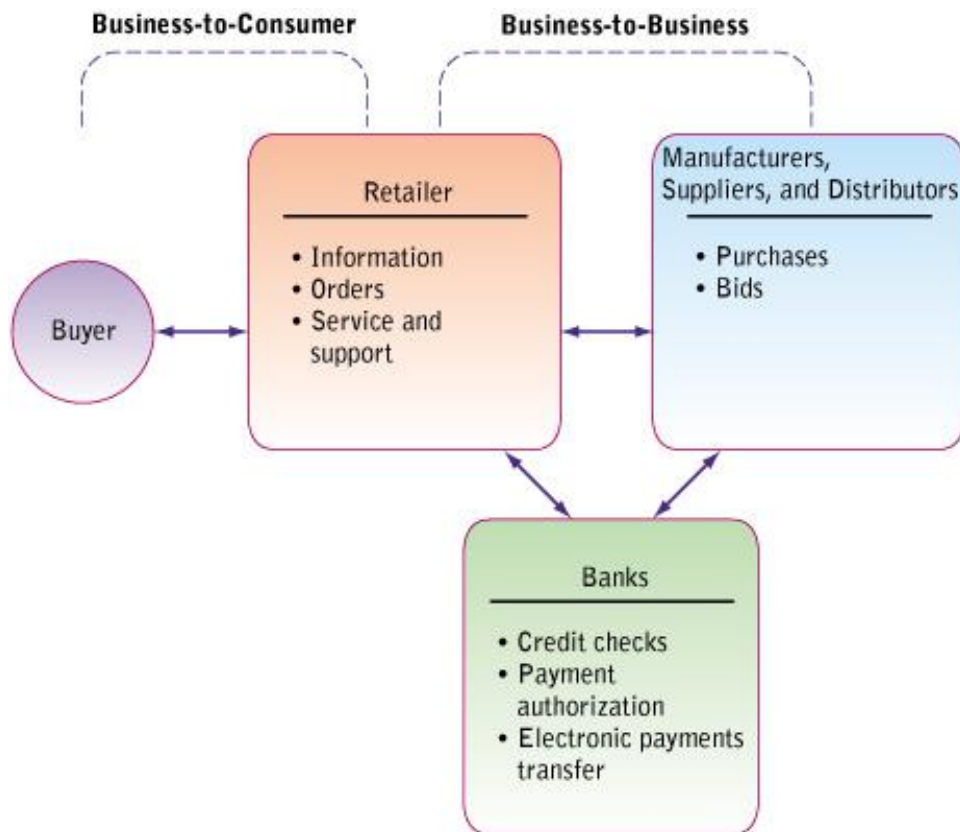


Figure 1. E-commerce information flows

Now they are turning to the Web and extranets. The Internet offers a cheaper alternative by allowing private-exchange traffic to run over public networks--yet still letting companies restrict access to authorized partners. Authorized smaller companies could access such an exchange using a Web browser and a standard dial-up connection. Web-based private hubs are also more flexible than EDI. Private exchanges deliver information instantly, while EDI functions more like an e-mail account, storing and sending data in bulk at predetermined times.

For B2B e-commerce, companies can use their own Web sites, or they can conduct sales through Web sites set up as on-line marketplaces. Industrial malls bring together a large number of suppliers in one place, providing search tools so that buyers can quickly locate what they need. They make money by collecting fees from their "tenant" vendors.

It's easy to see that an on-line marketplace, which mirrors the physical marketplace, will make it easier for companies to transfer information, and make financial transactions quicker and more efficient. The real point about business on the Net is that it allows completely new ways of doing business to develop.

With so many businesses on line, one of the problems is going to be finding the best company to do business with. Searching the Net looking for a company that exactly matches the criteria you are looking for is likely to be time-consuming and frustrating. What is needed is a sort of virtual middleman, or market maker that can bring together buyers and suppliers. This role play portal sites, which can

route business transactions over the Web from one business to another. These “Portal Sites” are also known as “marketplaces”, “B2B E-Commerce sites”. They all perform the same function of bringing buyers and sellers together, increasing market liquidity and generally reducing the cost of doing business on-line. Portal sites usually operate in one of three ways.

1. Catalog Sites Catalog based sites are the most obvious type of B2B E-Commerce site where buyers are matched up with sellers of a range of fixed price items. Transactions are usually frequent although often medium to low value.

2. Exchange Sites Exchange sites are more sophisticated and operate roughly in the same way as financial exchanges. They are usually used for trading commodity-like items such as electricity or paper.

3. Auction Sites B2B auction sites can work in much the same way as consumer auction sites and are often used to sell off surplus inventory. Another type of B2B site that is perhaps not so obvious is the B2B Community Site. Doing business is not always about actual business transactions. There are other business activities, such as research, and political lobbying, or even just informally exchanging ideas, where it is useful for businesses to get together and the Web of course is the ideal medium for bringing people together. There are many industry-specific sites that exist purely to act as a center of interest for particular industries.

Benefits of Business-to-Business

Considering the depth and breadth of products and supplies used by retailers, it is ripe for B2B transactions. Using B2B e-commerce can help lower procurement costs. Working in conjunction with other retailers can introduce an economy of scale. Being connected to suppliers creates an efficient purchasing process. B2B transactions can improve cycle times and productivity.

Here are just a few of the possible uses of B2B sites by retailers:

- Consolidating orders with other retailers to obtain discounts from manufacturers.
- Auction off excess inventory for quick liquidation, freeing inventory dollars.
- Exchange assets or sell them for cash.
- Sell back-hauling services for the trucks used to distribute goods to the stores.
- Arrange to share transportation costs on shipments.
- Post requests for proposal or request for quote in one place saving time and effort while broadening response.

Some significant retailers and retail organizations are jumping on the B2B bandwagon. Many retail giants are working with Oracle to launch a global B2B online exchange serving the retail industry.

The ability of Internet marketplaces to connect international and geographical markets without major infrastructure investments makes it ideal for large and small retailers alike. In addition, B2B sites can offer services that make them valuable to retailers:

- Content, such as product knowledge, news, and industry articles;
- Buyer and seller ratings;
- Logistics services;
- Escrow and financial settlement;
- Back-end integration with the retailer's computer systems.

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How Business-to-Business Sites Works

Unlike retailing, which is mostly a B2C industry, B2B deals with working with vendors, distributors, and other businesses. There are different types of B2B e-commerce sites that work in various ways and are broken into two major groups: the verticals and horizontals.

Verticals are B2B sites designed specifically to meet the needs of a particular industry, such as retail. Vertical sites are the most likely to contain community features like industry news, articles, and discussion groups.

Horizontals provide products, goods, materials, or services that are not specific to a particular industry or company. Horizontals that retailers could use might provide travel, transportation services, office equipment, or maintenance and operating supplies.

Horizontals and verticals can connect buyers and sellers together directly or act as intermediaries who facilitate transactions. There isn't one general model for B2B e-commerce. B2B sites vary from those providing simple lead generation, to complex marketplaces serving a variety of buyers and sellers, to private extranets.

Auctions allow multiple buyers to bid competitively for products from individual suppliers. Auctions can be used to get rid of surplus inventory by item or lot, or excess fixed assets like display fixtures. Since the seller can set a minimum price with prices moving up from the minimum, the sellers can usually get more than a liquidator would pay for the same items. Buyers also have the ability to pick up product and equipment well below list prices.

Reverse auctions, in contrast, allow retailers to post their need for a product or service and then allow vendors to bid on fulfilling the need. Some reverse auction sites aggregate demand from many small buyers providing economy of scale. Small retailers ordering as a group will get a much better deal from a vendor than they could individually.

B2B sites also include catalog aggregators who act as intermediaries between many vendors and retailers. They standardize content by combining catalogs from multiple vendors. Catalog sites generally have fixed pricing, although pricing may be tiered based on the buyer's profile or quantity ordered.

Exchanges are two-sided marketplaces where buyers and suppliers negotiate prices. Frequently utilizing a bid-ask process where prices move up and down depending on the market. Exchanges can be used for new items and supplies, or used to trade excess inventory and fixed assets.

B2B sites can also provide project tracking or collaboration services to their members. Collaboration allows retailers and vendors to work on new products, provide better forecasts, and improve response.

Buyers and sellers can come together on B2B sites openly or by using infomediaries. Infomediaries are third parties that act as agents. They are frequently used to allow the participants to remain anonymous while transacting business. In addition to transaction services, an infomediary could provide advice or research helping retailers make informed buying decisions.

Facilitating B2B e-commerce in another way, are the channel enablers who create online marketplaces for existing distribution channels. Channel enablers support both buyers and sellers with B2B e-commerce services that vary from consolidating product information, to managing distribution and payment, to integrating with the members' back-end systems. This last service is a common use of channel enablers in the retail B2B area: translation services to EDI.

The translation service is needed because the underlying technology of B2B e-commerce replaces the current retail e-commerce standard, EDI. EDI is less standardized and more costly than Internet based e-commerce, which typically uses XML (eXtensible Markup Language) to allow buyers and sellers to communicate online. Many B2B sites integrate EDI-to-XML transactions enabling trading between large and small companies.

XML provides a flexible way to describe product specifications or attributes. XML is similar in concept to HTML, which allows you to "mark up" language to control how it looks. Unlike HTML however, XML allows you to "mark up" language to describe what it is. Using XML you can label part number, price, color, size, etc. and the system will know exactly what the tag references without the complicated file structures and proprietary networks required for EDI. The only issue is that XML only works when everyone uses the same tag references, which is why groups are busily working to generate standards.

Retailers need to know about these standards and how B2B systems will work with their existing legacy systems.

Interconnecting Business-to-Business

In using EDI to interconnect their systems with their vendor's systems, retailers have been able to improve response time and increase productivity. However there are areas where EDI falls short and this is where B2B e-commerce can bridge the gap.

EDI works by interconnecting systems using document-based messages that can be read by the retailers and suppliers legacy systems without actually interfacing their applications. Using EDI, a purchase order, an advance shipping notice, or an invoice can be turned into a unique message and transmitted between companies.

Where EDI falls down is in the very document-based messages that allowed for quick response prior to the rise of the Internet. These messages do not allow for interactive searches or collaboration, they are also less immediate than connecting online. Using the Internet allows retailers and their suppliers to connect efficiently in real time with a simple browser. In contrast with the immediate gratification of a browser and Internet connection, the speed of EDI transactions now seems somewhat slow. Considering that business messages have to be created, transmitted, received, and finally processed in order to go full cycle, EDI no longer corners the market on speed.

Unlike EDI, the technology of B2B e-commerce can combine product catalogs and support information, and then link directly into retailers and suppliers procurement and ERP systems. XML, which is heavily used in B2B, can be integrated with the existing EDI systems by providing forms that can be completed to generate EDI messages. XML can also reverse the process and take data received via EDI and translate it into a document that can be viewed on a standard Web browser.

Using XML, a vendor's catalog could be merged into a retailer's merchandise database. Flipping the XML around, the buyers can order by SKU, style/color/size, or whatever other method they prefer, and have their purchase orders translated into the part number information needed by the vendor. The benefit in allowing users to work in the method that makes the most sense for them is a tremendous advantage to the new technology.

Web-based systems of all flavors will be able to be integrated with various B2B exchanges to allow retailers and their suppliers to vastly increase their productivity and reaction times. In addition to the other benefits of B2B, the Internet will make real time collaborative planning, forecasting and replenishment a reality, creating more satisfied consumers and more profitable vendors and retailers.

B2B Becomes Serious Business to Retailers

Retailers are embracing the B2B boom. They are joining forces for B2B exchanges now, even if it may take some time to get their

marketplaces up and running. Group investments by retail's heavy bats are creating large marketplaces capable of generating a lot of activity very quickly once they are live.

The big retailers don't just want to join, they are looking to own a stake in their B2B marketplaces. Most of the major retailers in the U.S. and Europe have already hooked up as equity partners in one of the two largest exchanges announced to date.

Retailers have jumped on B2B exchanges and created their own because it is in their best interests. Better than participating in a marketplace run by a consortium of vendors or even a neutral third party, being part owner gives the retailers more of a say in the workings and ultimately more cost savings. Collaborating with other retailers can drive vendor prices down. The savings involved has been a crucial point for getting rivals to work together.

The retail industry looking to become more efficient has just finished a cycle of narrowing suppliers. B2B marketplaces can reopen the retail market to vendors who have been shut out over the last decade because they didn't use EDI. Consolidating through an exchange also allows a retailer to work with more vendors without losing the efficiency gained from having less suppliers.

B2B marketplaces have enormous potential to change the way most buyers do their jobs in both large and smaller companies. It is easy to see many large retailers led exchanges with smaller retailers belonging to multiple B2B sites while the large retailers stick to the one where they have an equity stake.

Buyer operated exchanges like Global Net Xchange and WorldWide Retail Exchange are growing placing seller operated exchanges in direct competition. Of course the manufacturers may be willing to hook up with the retailers exchanges and vice versa, but this does not have the efficiencies of a single point for all transactions.

Global Net Xchange (www.gnx.com) is a B2B network for mass merchants, specialty, grocery and category retailers to buy, sell, trade or auction goods and services.

WorldWide Retail Exchange (www.worldwideretailexchange.org) will be an online marketplace for members to independently conduct a full range of food, non-food, textile and drugstore e-commerce transactions with individual vendors.

Business-to-Business Directory featuring a variety of B2B sites that cross multiple retail categories including mass merchants and grocery. Here the list of more important marketplace.

Bulk Works (www.bulkworks.com) Wholesale marketplace especially designed for small businesses to reach all sizes of retail store buyers.

Buy Link (www.buylink.com) A fast moving online marketplace for wholesalers and retailers of consumer products.

C-ME.com (www.c-me.com) Connects retailers with their vendors via specialized private extranets for retailers to centralize their merchandise review and search processes.

Global Sources (www.globalsources.com) Volume vertical market covering a variety of consumer goods. Community features news, cargo tracking and travel specials.

Meet China.com (www.meetchina.com) Major trade portal for sourcing a variety of products directly from China.

Retail Exchange.com (www.retailexchange.com) An online marketplace for exchanging excess consumer goods by lot.

Retex (www.retex.com) Even small retailers can afford state-of-the-art technology with this buying group's clout behind them.

Wholesale Central (www.wholesalecentral.com) Comprehensive directory of current and active wholesalers, plus a buyer's and seller's network marketplace.

You can access to the B2B world, find product or services you need or offer through B2B directories or portals, which are doorway to this world:

- B2Business (www.b2business.net)
- Business.com(www.business.com)
- Thomas Register(www.tomasregister.com)
- Websters Online([www. Webstersonline.com](http://www.Webstersonline.com))
- Yahoo B2B
- (http://dir.yahoo.com/Business_and_Economy/Business_to_Business/)
- More...(www.bocat.com/b2b)

You can join a discussion on "Is your company using B2B E-Commerce?" at <http://forums.about.com/ab-retailind/> or read B2B news and resources at:

- B to B (<http://www.netb2b.com>)
- Ecommerce Times (<http://www.ecommercetimes.com>)
- EComworld (www.ecomworld.com)
- Forbes (<http://www.forbes.com/ecommerce/>)
- Line 56 (<http://www.line56.com>)

B2B E-Commerce in Azerbaijan

Top.Az Internet Technologies is the Country Partner of Businessdubai.com responsible for operation of Azerbaijan Emarketplace. The main line of activities of the company established in 1999, is providing business information services, Internet marketing and advertising through its Business Information portal www.top.az, creating and hosting corporate web sites and portals, web programming, as well as development of B2C e-stores and B2B e-marketplaces. The company has pioneered implementation of e-commerce in Azerbaijan: <http://www.azerbaijanmarketplace.com>.

Conclusion

According to a recent study by the U.S. National Association of Manufacturers 68 percent of responding manufacturing companies said they're not currently using e-commerce for business transactions. Yet the retail industry has been historically slow to change to new technology. Of course some retailers embraced the early form of e-commerce, EDI with gusto. However the majority of retailers still buy many goods with purchase orders transmitted to suppliers via fax. Still even fewer retailers are using the Internet for purchasing than currently use EDI.

Businesses today are relying more than ever on the Internet and Web technology to facilitate communication, shipments, and transactions, cut costs, and save money. Reports of online B2B's death were exaggerated.

On March 18, the U.S. Census Bureau released a report showing that during the calendar year 2000, online B2B revenues trounced retail results. According to the report, B2B accounted for 94 percent of all e-commerce transactions, and the manufacturing sector alone reported \$777 billion in e-commerce shipments for the year. In contrast, online retail sales came in at less than \$29 billion.

The future of B2B on the Internet is likely to result in a series of interconnected exchanges. Transactions will take place inside the "home" exchange if possible, then if not, the exchange of the future will likely route through other connected exchanges until the transaction can be completed. Collaboration between exchanges is also likely to become commonplace. Retailer and vendor led marketplaces working together are also less likely to run into the antitrust issues than a collection one or the other would when trying to influence pricing.

Pretty soon most business will be E-business to some extent. Worldwide B2B E-Commerce is projected to reach \$7.29 trillion by 2004 with North America accounting for nearly 40% of this.

It's clear that B2B E-commerce involves businesses selling things to each other over the Net, but as you know, there's a lot more than it.

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6. *B2B Resource Guide.*

Х ц л а с я

БИЗНЕСДЯН БИЗНЕСЯ ЕЛЕКТРОН ТИЪАРЯТ

Лейла МУРАДХАНОВА

(Хязяр Университяси, Бакы, Азярбайъан)

Бизнесдян Бизнеся Електрон тиъарятин ян эениш йайылмыш формасы кими Интернет вя Web технолоэийалары гыса бир мцддядя бцтцн дцнйанын истещлакчыларына вя бизнесиня эцълц тясирини эюстярди. Бу эцн Електрон тиъарят – Интернет васитясиля малларын, мямулатларын вя хидмятлярин алыныб сатылмасы, дцнйа бизнесиндя ясас рол ойнайыр. Електрон тиъарятин транзаксийалардан асылы олага мцхтялиф типляри вар: Бизнесдян Бизнеся, Бизнесдян Истифадячийя, Истифадячидян Бизнеся, Истифадячидян Истифадячийя. Електрон тиъарятин ян эениш йайылмыш формаларындан бири Бизнесдян Бизнеся формасыдыр.

Електрон тиъарятин Бизнесдян Бизнеся формасында компанийалар юз Web сайтларындан, йахуд да фасилясиз режимдя ишляйян маркет кими гейд олунан Web сайтлардан истифадя едя билярляр. Беля сянайе базарлары алыгыларын тялябатларыны тез бир заманда юдямяк ццн истещлакчылары бир йеря топлайырлар. Онларын юзляри ися сатыгы иъарядарлардан пул ялдя едирляр.

“Онлайн” режимдя фяалийят эюстярян маркетляр компанийаларын информасийа мцбадилясини вя малийя транзаксийаларыны тез вя даща ефектив щяйата кечирирляр. Беляликля, Интернет васитясиля бизнес, бизнесин йени цсулуну инкишаф етдирир.

Бизнесдян Бизнеся сайтлары

Бизнесдян Бизнеся сайтларындан мцхтялиф сатыгыларын истифадя етмяляринин сябябляри ашаъыдакылырдыр:

1. Истещалчылардан ендиримляр алмаг мягсядиля башга сатыгылар иля бирляшмиш сифаришляр;
2. Артыг инвентарларын ауксиону;
3. Активлярин мцбадиляси, йахуд онларын няъд пула сатылмасы;
4. Малларын маъазалара пайланмасында истифадя олунан йцк машынлары ццн хидмятлярин сатылмасы;
5. Дашынма ццн хярълярин бюлщдцрцлмясинин тяшкили;
6. Тялябатын почт васитясиля эюндярилмяси вя онун ъавабына сярф олунан вахта гянаят.

Бизнесдян Бизнеся Електрон тиъарят сайтлары 2 буюцк група бюлцнцр : вертикал (шагули) вя щоризонтал (цфцги).

Вертикал сайтлар спесифик сянайенин тялябатларыны юдямяк ццн йарадылыр. Бу сайтларда сянайе йениликляри, мягаляляр, мцзакиряляр юз яксини тапыр.

Щоризонтал сайтлар хцсуси сянайе вя компанийалар ццн спесифик олмайан мящсуллары, маллары, мямулатлары вя хидятляри

тямин едир. Бу сайтлар сыйащати вь дашынма хидмятлярини, офис аваданлыгларына хидмятляр вь ещтийатлары да тямин едя билир.

Щоризонтал вь вертикал сайтлар алыгы вь сатыгылары бирбаша, йахуд да транзаксийалары щйята кечирян васитячи васитясиля узлащдыыр.

Мягальдя Електрон тьярятин Бизнесдян Бизнеся формасынын фйдасы, Бизнесдян Бизнеся сайтларынын неья ишлямяси ачыгланмышдыр. Бир сыра мящур Бизнесдян Бизнеся директорийалар, йахуд порталлар шаггында мялумат верилмищ, Бизнесдян Бизнеся йениликлярин вь ресурсларын Интернет цнванлары эюстярилмищдир.

Нятиья

Бизнесдян Бизнеся Електрон тьярятин эялягьи бир сыра ялагяли мцбадия иля нятиьяляндирмяк олар. Транзаксийалар ев дахилиндя, бу мцмкцн олмадыгда ися сювдяляшмяляр баша чатана гядяр ялагяли мцбадия маршрутларындан ибарят олаьагдыр.

Тезликля бцтцн бизнеслярин чоху мцяййян дярягядя електрон бизнес олаьагдыр. 2004-ъц илдя Бизнесдян Бизнеся Електрон тьярятин 7. 29 триллион доллар олмасы эюзлянилир ки, бунларын да 40%-и Шимали Американын пайына дцщцр.