

Introduction To E- Commerce

- ***What is E-Commerce?***
- ***Different Definitions of E-Commerce***
- ***Scopes of E-Commerce***
- ***Difference of E-Commerce and Traditional Commerce***
- ***Characteristics of E-Commerce***
- ***Why E-Commerce over Internet?***
- ***Capabilities Required for E-Commerce***
- ***Benefits of E-Commerce***
- ***Business Issues in E-Commerce***
- ***Technical Issues in E-Commerce***

- What is “Internet Commerce”?

By Internet commerce, we mean the use of the global Internet for purchase and sale of goods, services, including service and support after sale.

Internet commerce brings some new technology and new capabilities to business, but the fundamental business problems are those that merchants have faced for hundred - even thousands - of years:

you must have something to sell, make it known to potential buyers, accept payment deliver the goods or services, and provide appropriate service after the sale.

The Internet --->

- an efficient mechanism for advertising and distributing product information.***
- enabling complete business transactions..***

Internet commerce -> one type of the more general “electronic commerce”.

- What is “E-Commerce”?

There are many different definitions and understanding about E-Commerce.

According to Frederick J. Riggins and Hyeun-Suk Rhee, a recent pilot survey shows that some practitioners and managers view

E-Commerce --> buying and selling goods and products over internet.

However, researchers believe the E-Commerce practice should include a wide variety of presale and post-sale activities.

Applegate et al.[1] identify three classes of e-commerce applications:

- Customer-to-business***
- Business-to business***
- Intraorganizational***

- Different Definitions of E-Commerce

Zwass[12] defines e-commerce as

“... the sharing of business information, maintaining business relationships, and the conducting business transactions by means of telecommunications networks”

He pointed out that e-commerce includes not only buying and selling goods over Internet, but also various business processes within individual organizations that support the goal.

Four different types of information technology are converging to create the discipline of e-commerce:

- electronic messages, email and fax***
- sharing a corporate digital library***
- electronic document interchange utilizing EDI and electronic funds transfer***
- electronic publishing to promote marketing, advertising, sales, and customer support***

- Different Definitions of Electronic Commerce

Treese and Stewart gave their view of Internet-commerce as follows:

“... the use of the global Internet for purchase and sale of goods and services, including service and support after the sale. The Internet may be an efficient mechanism for advertising and distributing product information, but our focus is on enabling complete business transactions.”

“... Speaking broadly, electronic commerce includes the use of computing and communication technologies in financial business, online airline reservation, order processing, inventory management...”

Historically speaking, the best known idea in electronic commerce has been Electronic Data Interchange (EDI)...”

Although their view of e-commerce has been expanded to services and support after sale.

- Different Definitions of Electronic Commerce

Daniel Minoli and Emma Minoli gave their view of Internet-based commerce as follows:

“... This revolution is known as electronic commerce, which is any purchasing or selling through an electronic communications medium.

....

Internet-based commerce, in general, and Web-based commerce, in particular, are important sub-disciplines of electronic commerce.”

“Electronic commerce is the symbiotic integration of communications, data management, and security capabilities to allow business applications within different organizations to automatically exchange information related to the sale of goods and services.”

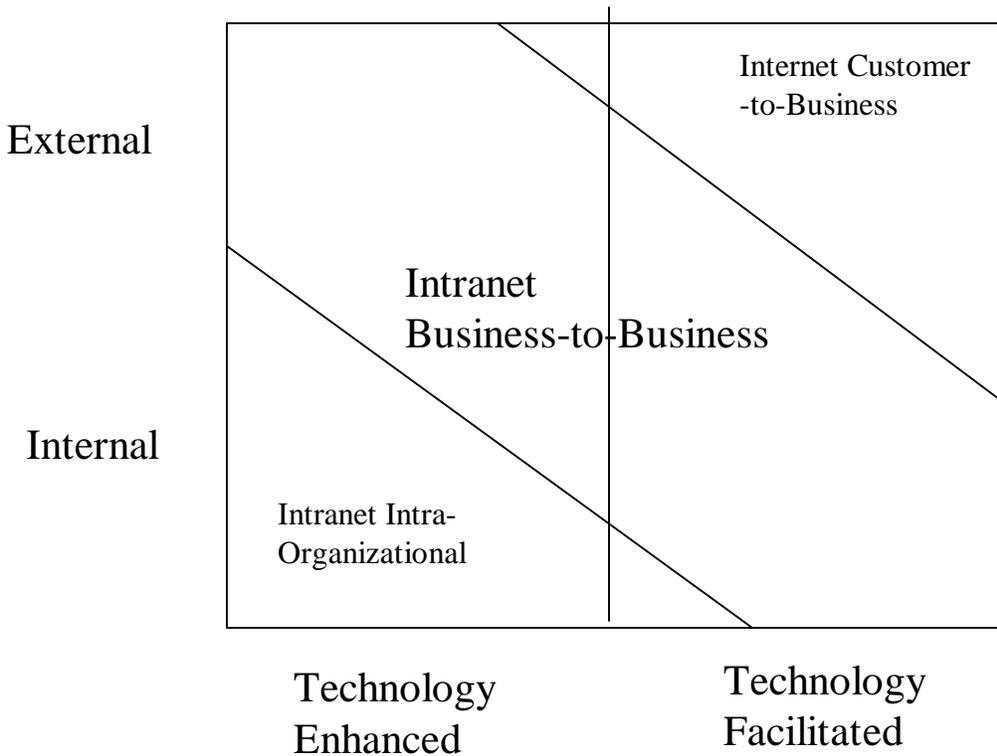
- Different Definitions of Electronic Commerce

Frederick J. Riggins and Hyeun-Suk Rhee gave their domain matrix for electronic commerce as follows:

External	Improve coordination with existing trading partners Cell 3	Market creation to reach new customers Cell 4
Internal	Improve coordination with internal business units Cell 1	Information exchange to work with new team members Cell 2
	Technology Enhanced	Technology Facilitated

- Different Definitions of Electronic Commerce

Frederick J. Riggins and Hyeun-Suk Rhee gave their unified view of electronic commerce as follows:



- The Scope of Electronic Commerce

Electronic Commerce encompasses one or more of the following:

- EDI***
- EDI on the Internet***
- E-mail on the Internet***
- Shopping on the World Wide Web***
- Product sales and services on the Web***
- Electronic banking or funds transfer***
- Outsourced customer and employee care operations***

Electronic Commerce:

- Automates the conduct of business among enterprises, their customers, suppliers and employees - anytime, anywhere.

- Creates interdependencies between your company's value chain and those of your suppliers and customers. Your company can create competitive advantage by optimizing and re-engineering those value-chain links to the outside.

- Differences between Electronic Commerce and traditional commerce

- The major difference is the way information is exchanged and processed:

- ***Traditional commerce:***

- ***face-to-face, telephone lines , or mail systems***
- ***manual processing of traditional business transactions***
- ***individual involved in all stages of business transactions***

- ***E-Commerce:***

- ***using Internet or other network communication technology***
- ***automated processing of business transactions***
- ***individual involved in all stages of transactions***
- ***pulls together all activities of business transactions, marketing and advertising as well as service and customer support***

- Characteristics of Electronic Commerce

The tools are electronic but the application is commerce.

- Commerce is not accounting or decision support or any other internally focuses function.*
- Commerce is externally focused on those with whom you do business.*
- Commerce is doing business, not reporting on it or sending messages about it.*

Special characteristics of electronic commerce and Web commerce:

- information exchanged and processed by a communications network and computers, as well as e-commerce software.*
- most transactions are processed automatically.*
- pulls together a gamut of business support services, such as*
 - inter-organizational e-mail, on-line directories*
 - trading support systems for commodities*
 - products, and customized products*
 - custom-built goods and services*
 - ordering and logistic support system supports*
 - management and statistical reporting systems*

- Why Internet Commerce?

In the short term:

- The top line: Access to a Global Market***
 - the ability to reach new customers and create more intimate relationships with all customers.***
- The bottom line: Dramatic Reduction in distribution costs***
 - drastic cost reductions for distribution and customer service.***

In the long term:

- The Internet may well change the structure of the competitive landscape.***
- Internet communications will transform***
 - the relationship between business and their customers.***
 - the conversion from physical to digital will displace the source of business value.***

- Why Internet Commerce?

The World Wide Web is one of the most prominent applications supported by the Internet.

Current revenues are about \$500 million per year.

Potential markets for Web commerce as large as \$500 billion a year.

Yankee Groups' forecasts about Web Commerce:

- Business-to-business market to reach \$137 billion by 2000.***
- Consumer market: \$10 billion by 2000.***
- Businesses on line in 1995: 150,000.***
- Businesses on-line in 2000: 2 million.***
- in 1996, 25% of on-line subscribers are on-line shoppers.***
- By 2000, 79% of technically advanced families (TAFs) and 30% of non-TAFs will make purchases on-line.***
- In 1995, only 13% TAFs and 6% of non-TAFs did.***

- Capabilities Required for Internet/Web Commerce?

- Enable buyers to:

- inquire about products***
- review product and service information***
- place orders, authorize payment***
- receive both goods and services on-line***

- Enable sellers to:

- advertise products***
- receive orders***
- collect payments***
- deliver goods electronically***
- provide ongoing customer support***

- Enable financial organizations

- to server as intermediates that accept payment authorization***
- make***

- Enable sellers to notify logistics organization

- Benefits of Internet Commerce

Business benefits:

- Reduced costs to buyers from increased competition on-line***
- Reduced costs to suppliers by on-line auction***
- Reduced errors, time, and overhead costs information processing***
- Reduced inventories, and warehouse***
- Increased access to real-time inventory information, speed-up ordering & purchasing processing time***
- Easier enter into new markets in an efficient way***
- Easily create new markets and get new customers***
- Automated business processing***
- Cost-effective document transfer***
- Reduced time to complete business transactions, speed-up the delivery time***
- Reduced business overhead and enhance business management***

- Benefits of Internet Commerce

Marketing benefits:

- Improved market analysis, product analysis and customer analysis.***
- Low-cost advertising***
- Easy to create and maintain customer o client database***

Customer benefits:

- Wide-scale information dissemination***
- Wide selection of good products and goods at the low price***
- Rapid inter-personal communications and information accesses***
- Wider access to assistance and to advice from experts and peers.***
- Save shopping time and money***
- Fast services and delivery***

- Business Issues in Internet Commerce

Internet commerce is about business - using the network effectively to achieve business goals. This include the changes in both computing, communication, business marketing, business processing and transactions.

Questions should be asked and answered:

- How does it fit with our strategy? Should our strategy change?***
- What does this mean to our competitive situation?***
- Do we expect return in the short term, or is this a long-term investment?***
- How much will it cost? What do we expect to accomplish?***
- How will we measure the success?***
- How does this affect our sales channels, our partners, our suppliers?***

Concerning factors:

- Cost, Technology, Transition Time, and Strategy***

- Technical Issues in Internet Commerce:

- How to apply Internet technology to business problems?***
 - Business model selection***
 - Technology selection***
 - Protocol selection for transaction processing***
 - Market place set-up***
 - Security solution***

- Fast technological changes***
 - Communication and network technology***
 - Computer hardware and application software***
 - WWW Technology, HTML, CGI, XML, SVG, ...***
 - Browser technology and server technology***
 - Multimedia technology***
 - Information search technology***
 - Security technology***
 - Protocols and transaction technology***

- Technology Issues in Internet Commerce

Special characteristics of electronic commerce and Web commerce:

- on-line retail store, such as amazon.com***
- electronic shopping, on-line shopping mall***
- on-line trading, e-trade***
- on-line auction, ebay***
- on-line marketplace, such as***
- electronic information communication between customers and
manufactories.***
- electronic publishing, such as product catalog***
- electronic ordering, purchasing, and payment processing***
- electronic advertising, marketing,
such as an electronic market place***
- electronic services and and supports***
- electronic business management and statistical reporting***
- electronic business workflow control and tracking***