Lesson 1
INTRODUCTION TO E-COMMERCE

1.1 INTRODUCTION

In the past few years, enterprises across the globe have experienced significant changes in their business information system. Huge investments were made in enterprise resource planning system implementations but still they struggle to get timely information that is needed to make effective business decision and to ensure continuous growth of enterprises. Placing "e" in front of any process or function seemed to be the magic prescription for never ending story of success and rapid returns for enterprises. E-business, e-procurement, e-sales, e-payment, e-banking, e-CRM, e-CAD, e-delivery are just a few. Internet, for example is becoming one of the most popular medium in transmitting various data. Users can find any kind of information within a shorter time compared with conventional method that consumes more time.

The emergence of the Internet throughout the world has been contributing such a variety medium in doing business as well as people lifestyle. In fact, Internet is the essential prerequisite for the existence of E- commerce. Electronic commerce or e-commerce has been defined as the ability to perform transactions involving the exchange of goods or services between two or more parties using electronic tools and technique. The explosion of E-commerce has created new phenomena in our lifestyle especially in shopping activities. Consumers can easily buy products or services like magazines and airlines tickets via Internet.

1.2 DEFINITION

The word commerce is the basic concept for electronic commerce, pertaining to buying and selling of goods while 'commercial' denotes business practice and activities intended to make profits. Electronic commerce, like any other business, deals with the exchange of money for soft or hard goods and services.

Kalakota and Whintons in 1997 defined the term E-commerce from different perspectives. These perspectives are:

- Communication
- Business Process
- Service
- Online

Communication Perspective: According to this perspective, E-commerce is the delivery of information, product/services or payments over telecommunication channels, computer networks or any other electronic mode of communication.

Business Process Perspective: This says that E-commerce is the application of technology towards the automation of business transactions and work flow.

Service Perspective: E-commerce is defined as a tool that addresses the desire of firms, consumers and management to cut service cost while improving the quality of goods/services and increasing the speed of service delivery.

Online Perspective: E-commerce provides the capability of buying and selling products and information on the internet and other online services.

The term commerce is treated as transaction between business partners. Therefore, the term e-commerce seems to fairly narrow to people. Thus some time we use the term e-business. It is a broader definition of e-commerce. There is confusion among the consultants and the academicians over the use of this term. Some think that e-commerce encompasses all world of electronically based organizational activities that support a firm's market exchanges – including a firm's entire information system's infrastructure. On the other hand, some argue that e-business encompasses the entire world of internal and external electronically based activities including e-commerce.

"E-commerce has the potential to unleash enormous savings and business efficiencies, but the practicalities remain elusive. How will e-commerce change the global planning and purchasing of transport and logistics in the supply chain? Logistics has been described as the key enabler for e-business – but how can individual logistics and transport companies ensure that they benefit from, rather than perish in, the e-commerce revolution?"

Electronic Commerce (e-commerce) is electronic business. It's using the power of computers, the Internet and shared software to send and receive product specifications and drawings; bids, purchase orders and invoices; and any other type of data that needs to be communicated to customers, suppliers, employees or the public.

E-commerce is the new, profitable way to conduct business which goes beyond the simple movement of information and expands electronic transactions from point-of-sale requirements, determination and production scheduling, right through to invoicing, payment and receipt. E-commerce uses key standards and technologies including Electronic Data Interchange (EDI), Technical Data Interchange (TDI), Hypertext Mark-up Language (HTML), Extensible Mark-up Language (XML), and the Standard for Exchange of Product model data (STEP). E-commerce is made possible through the expanded technologies of the Internet, the World Wide Web, and Value-Added Networks.

The Internet is a worldwide collection of computer networks, co-operating with each other to exchange data using a common software standard. Through telephone wires and satellite links, Internet users can share information in a variety of forms. The size, scope and design of the Internet allows users to connect easily through ordinary personal computers and local phone numbers, exchange electronic mail (E-mail) with friends and colleagues with accounts on the Internet, post information for others to access, and update it frequently, access multimedia information that includes sound, photographic images and even video, and access diverse perspectives from around the world. An additional attribute of the Internet is that it lacks a central authority—in other words, there is no "Internet, Inc." that controls the Internet. Beyond the various governing boards that work to establish policies and standards, few rules and answers to no single organization bind the Internet.

Different people use different terminology such as 'electronic trading' 'electronic procurement' 'electronic purchasing' or 'electronic marketing'. From the above definition, we can conclude that electronic commerce is often used in a much broader sense, to mean essentially the same as 'electronic business'. In other words e-commerce includes purchases of goods, services and other financial transactions in which the interactive process is mediated by information or digital technology at both locationally separate, ends of the interchange. Here 'transactions' include both specification of goods and service required and commitment to buy. E-commerce transaction model can be in terms of business to business (B2B), business to customer (B2C) or customer to customer (C2C).

1.3 FEATURES OF E-COMMERCE TECHNOLOGY

Electronic Commerce means better business communication and data interchange information is essential for any and every business. The quality and quantity of information which a business delivers to customers or use this information to make decisions can determine just how competitive the business is. A company already may be using a number of electronic based tools to help acquire and extend information and communication needs. These may include personal computers, word processors, courier, facsimile machines, telex services, cellular phones, pagers and more.

Unfortunately, many of today's communication tools are not really up to the speed of today's business needs, and can actually create barriers to achieving the goals set on the basis of strategies formulated by a company.

For instance, postal facilities can keep business waiting for information for days or even weeks. Overnight couriers may save time but can be an expensive proportion. Traditional telex and fax is quick but costly and communicating by telephone can become an endless game of tag. Now a business can avoid these problems by using e-commerce which is fast, cost efficient, time saying and easy to use -i.e., economic tangibility and good business generation.

Electronic business can result in better transactions, wide market coverage by offering the benefits of speed, convenience, being cost effective, timeliness, high profit margins, instant customer relations, no loss of customers, impact and control- all are a fraction of the past traditional business methods. A concern can do everything it can to run its business efficiently and profitably. Application of electronic operations to commercial activities means better business solutions. It greatly facilitates a firm to make better decisions, sale forecasts, prices and other valuable information can be sent and received instantaneously. A business will always have the information it needs faster, easier and more completely in the new system of communication than ever before. This enables firms to have an edge over competitors by informing, following up and requesting information faster and easier to customers. Another feature is that it helps to maintain greater control, at work, home or while traveling, communicate with any business partner or firm, anywhere instantly.

Improve Responsiveness

How does e-commerce help business? It helps by improving responsiveness to market conditions and customer preferences. Every business must know how important timing is to marketing and selling products. Timing is important to cater to the demands of customers.

If distributors, dealers and sales force do not get the right information at the right time, there will be a financial crisis as well as losing valuable customers.

E-commerce network enables a company to implement marketing programmes with greater precision such as:

- Pre-empt competitiveness with a change in marketing tactics before they can react.
- Improve responsiveness by revising price change and marketing programmes as and when required.

Expedites and Streamlines Reporting

It has been an experience in conventional commercial practices with factors like delays and ineffectiveness in reporting systems crippling effectiveness. Responsive, timely information flows from sound management systems. Electronic commerce improves delivery and distribution both within and outside organizations. The benefits are:

- Stored lists of key recipients facilitate distribution.
- Electronic delivery time.

Coordinates Sales Efforts

Some marketing studies reveal that most sales people spend nearly 75 per cent of their time on the roads, relying heavily on telephone calls for contact with their head officers and customers. Telephone tag makes an endless frustrating game out of tracking down leads and following up to authenticate sales calls. In addition, misplaced or undelivered information results in low sales records. Other benefits of electronic business are:

- Eliminating telephone tag.
- Sending and receiving message at convenience.

electronic and paper distribution, can make these jobs ...

SEVEN UNIQUE FEATURES OF E-COMMERCE TECHNOLOGY	
Dimension of E-commerce Technology	**Significance in Business**
Ubiquity Internet/Web technology is available everywhere: at work, at home, and elsewhere via mobile devices, anytime.	The marketplace is extended beyond traditional boundaries and is removed from a temporal and geographic location. "Marketspace" is created; shopping can take place anywhere. Customer convenience is enhanced, and shopping costs are reduced.
Global Reach The technology reaches across national boundaries, around the earth.	Commerce is enabled across cultural and national boundaries seamlessly and without modification. "Marketspace" includes potentially billions of consumers and millions of businesses worldwide.
Universal Standards There is one set of technology standards, namely internet standards.	There is one set of technical media standards across the globe.
Richness Video, audio, and text messages are possible.	Video, audio, and text marketing messages are integrated into a single marketing message and consuming experience.
Interactivity The technology works through interaction with the users.	Consumers are engaged in a dialog that dynamically adjusts the experience to the individual, and makes the consumer a co-participant in the process of delivering goods to the market.

NEED FOR E-COMMERCE

The global business environment is moving faster than ever before. Increased competition at home and abroad means quality as well as profitability must be preserved by corporate houses. This pressure has led to a reappraisal of the accepted existing business practice in the search for greater efficiently.

Traditionally, the response in the face of competitive threat has been to reduce costs by rationalizing production, shedding labour and restructuring business, coupled with investments in .technology to improve productivity and generate profit.

Whether business to business (B2B) or business to customer (B2C) there are benefits to all parties. A reduction in acquisition times and costs, lower prices for goods and services, an expanded number and quality of suppliers, an increase in buyer productivity. Better management information and better inventory control is possible. A Reduction time to market is also achievable giving improved operating efficiencies and improved product quality at reduced cost. The payment process can also be improved and finally and most importantly a greatly expanded customers base. B2B e-commerce was born out of an attempt to solve an administrative problem. It developed a new computer standard to handle these needs, which became known as EDI, Electronic Data Interchange. Today its descendant, XML, a lighter, simpler data interchange standard is used by B2B sites. Simple e-commerce sites first appeared in 1992. The early e-commerce sites were virtual catalogues, simply listing products for sale. Ordering was off-line, through e-mail, phone or fax. By 1996 the technology had advanced greatly to produce virtual stores with shopping carts, client accounts and, with the development of protocols such as Secure Socket Layer (SSL), enabled customers to order and pay for their purchase on-line directly by credit card. E-commerce quickly became popular with consumers and suppliers. For customers, it was fast, easy and efficient, allowing them to compare products, price and service before purchase. For suppliers, it allowed them to reach an unlimited international audience, 24 hours a day, 7 days a week at reduced costs. Today e-commerce is widely used and growing fast. B2B is the largest, fastest growing and most profitable market. According to IDC, this year, it is expected to account for two thirds of worldwide e-commerce. B2C is also expected to grow, boosted by Broadband (high-speed) Internet access to more on-line households. Future advances include digital money and e-wallets, and 'personal agents' that help users find what they are looking for. Sites can work with fulfilment centres providing customers with excellent service and suppliers with information, and can support the newest trend for human interaction in E-commerce customer service. The Internet is creating unprecedented and seeming infinite opportunities for both customers and businesses. Yet it one of its major problems is that it is changing so fast that both parties are overwhelmed by the speed of change and the sheer number of choices available to them. In addition web businesses win by following rules quite different than those which traditional businesses may follow.

E-commerce appears to be exempt from the kinds of constraints that have limited companies historically. An e-commerce environment handled in a proper manner, with the right customisation of products and services, in innovative ways, can lead to win-win situations. The customers can get the right product at the right time and for the right price, companies can set new standards in efficiency and profitability.

1.4 INTERDISCIPLINARY NATURE OF E-COMMERCE

Electronic commerce, being a new field, is just developing its theoretical or scientific foundations. Ii is based on several disciplines. The major disciplines of E-Commerce with some samples of issues with which they are concerned follow: