



MODUL PERKULIAHAN ELEARNING
MATA KULIAH - MCM 205 – ECOMMERCE (3 SKS)

PERTEMUAN 1 – *ELEARNING*

PENGENALAN KONSEP DASAR ECOMMERCE (BAGIAN 1)

Dosen

H. Andri Budiwidodo, S.Si., M.I.Kom.
(ID 7715)

Sumber penulisan modul:

Kenneth C. Laudon and Carol Guercio Traver. 2014. e-Commerce Business Technology Society. 10th Edition. New Jersey: Pearson. Halaman 6-19.

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.

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:

- 1) Communication
- 2) Business Process
- 3) Service
- 4) 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 defines 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 world wide 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).

FEATURES OF E-COMMERCE TECHNOLOGY

Electronic Commerce means better business communication and data interchange information is essential for every and any 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 upto 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 :

- 1) Pre-empt competitiveness with a change in marketing tactics before they can react.
- 2) 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 organisations. The benefits are:

- 1) Stored lists of key recipients facilitate distribution.
- 2) 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:

- 1) Eliminating telephone tag.
- 2) Sending and receiving message at convenience.
- 3) Linking sales team numbers to gather, including international representatives, and
- 4) Closing sales without delays.

Effectiveness and Efficiency

Electronic commerce can increase the efficiency and effectiveness of public relation programmes, broadcast press releases, financial updates and other corporate communications. Copy reviews and approvals are expedited by circulating instant messages to key internal and external contacts.

Close Contact with Clients

In any business where maintaining close contact with customers is a priority consideration, electronic business can increase responsiveness of the company' and ensure customer satisfaction. Appointment confirmations, requests for information, follow-up reports and electronic data interchange can be effected with greater efficiency using instant messages.

Planning and Execution of Meetings

The mechanism of electronic operations in business facilitates planning and execution of meetings. Executive management meetings, seminars, workshops, symposia and conventions take a great deal of time and effort to manage. Arrangements must be coordinated among a variety of diverse groups in different locations e.g., hotels, speakers, exhibitors, attendees, the media etc. Reports and surveys need to be distributed before and or after, the event. And there are always the headaches of late breaking events and last minute announcement. In an electronic business environment, video-conferences, document conference, computer-based conference, which offer companies the flexibility of both electronic and paper distribution, can make these jobs easier and more effective.

SEVEN UNIQUE FEATURES OF E-COMMERCE TECHNOLOGY

Seven Unique Features of eCommerce Technology	
Dimension of E-commerce Technology	Significance in Business
<u>Ubiquity</u> 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.
<u>Global Reach</u> 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.
<u>Universal Standards</u> There is one set of technology standards, namely internet standards.	There is one set of technical media standards across the globe
<u>Richness</u> Video, audio, and text messages are possible.	Video, audio, and text marketing messages are integrated into a single marketing message and consuming experience
<u>Interactivity</u> The technology works through	Consumers are engaged in a dialog that dynamically adjusts the

interaction with the users.	experience to the individual, and makes the consumer a coparticipant in the process of delivering goods to the market.
<u>Information Density</u> The technology reduces information costs and raises quality.	Information processing, storage, and communication costs drop dramatically, while currency, accuracy, and timeliness improve greatly. Information becomes plentiful, cheap, and accurate.
<u>Personalization / Customization</u> The technology allows personalized messages to be delivered to individuals as well as groups.	Personalization of marketing messages and customization of products and services are based on individual characteristics.

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 efficiency.

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, customers or suppliers. 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 world wide 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.

INTERDISCIPLINARY NATURE OF E-COMMERCE

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

Marketing

Many issues of marketing offline are relevant to online E-Commerce - for example, cost benefits of advertisements and advertisement strategies. Other issues are unique to E-Commerce, ranging from online marketing strategy to interactive kiosks.

Computer sciences

Many of the issues in the infrastructure of E-commerce, such as languages, multimedia, and networks, fall into the discipline of computer sciences. Intelligent agents play a major role in E-Commerce as well.

Consumer behavior and Psychology

Consumer behavior is the key to the success of B2C trade, but so is the behavior of the sellers. The relationship between cultures and consumer attitude in electronic market is an example of a research issue in the field.

Finance

The financial markets and banks are one of the major participants in E-Commerce. Also, financing arrangements are part of many online transactions. Issues such as using the Internet as a substitute for a stock exchange and fraud in online stock transactions are a sample of the many topics of the field.

Economics

Electronic commerce is influenced by economic forces and has a major impact on world and country economies. Also, theories of micro and macro-economics need to be considered in E-Commerce planning, as well as the economic impacts of E-Commerce on firms.

Management Information Systems (MIS)

The information systems department is usually responsible for the deployment of E-Commerce. This discipline covers issues ranging from systems analysis to system integration, not to mention planning, implementation, security, and payment systems, among others.

Accounting and Auditing

The back-office operations of electronic transactions are similar to other transactions in some respects, but different in others. For example, auditing electronic transactions presents a challenge for the accounting profession; so does the development of methodologies for cost-benefit justification.

Management

Electronic commerce efforts need to be managed properly, and because of the interdisciplinary nature of E-Commerce, its management may require new approaches and theories.

Business Law and Ethics

Legal and ethical issues are extremely important in E-Commerce, especially in a global market. A large number of legislative bills are pending, and many ethical issues are interrelated with legal ones, such as privacy and intellectual property.

Others

Several other disciplines are involved in various aspects of E-Commerce to a lesser extent- for example, linguistics (translation in international trades), robotics and sensory systems, operations research / management science, statistics, and public policy and administration. Also, E-Commerce is of interest to engineering, health care, communication, and entertainment publishing.

LEVELS OF E-COMMERCE

Electronic commerce is the process of conducting commercial transactions electronically over the Internet. This process is carried out primarily in five levels, and the main aspect of e-commerce is a merchant selling products or service to the consumers.

There are five major segments under the broader category of e-business. However, the following are some popular e-commerce models used by companies engaged in e-commerce:-

- 1) Business to business e-commerce (B2B)
- 2) Business to consumers e-commerce (B2C)
- 3) Consumers to consumers e-commerce (C2C}
- 4) Business to employees e-commerce (B2E) and
- 5) Consumer to business e-commerce (C2B)

Business to Business E-commerce (B2B)

E-business is the process of conducting business on the Internet. Its scope includes not only buying and selling but also services, fulfilling the needs of customers and collaborating with business partners.

Business to business e-commerce is smart business. The opportunity for business to business e-commerce is even greater.

A wholesaler may sell products to the retailer. There are advanced e-commerce software which support multi-tier pricing. This helps to set up online stores to offer preferred pricing to some vendors and shared price to others.

This includes internet-enabled initiatives of an enterprise to form commercial linkages with another enterprise, dealer, warehouse or manufacturer. In this form of e-commerce, e paperwork and time-to-market get vastly reduced. Throughout the world, this e-commerce mode is the biggest.

In a B2B transaction, the interaction is between businesses. For example, a website that is catching for the steel industry might have facility for buyers and sellers to list their requirements and post their products. It helps them in quickly closing the transactions and the buyer can get quality, material and can choose from different suppliers.

B2B commerce is a growing business in the e-commerce arena- with the increasing use of the internet, more and more business are realizing the commercial advantage of giving business clients a streamlined and easy manner to order products or service online. It facilitates access to the ordering process to only those with whom a concern has a commercial relationship.

Business to Business e-commerce provides small and medium enterprises (SMES) with an excellent opportunity to access new markets, improve customer service and reduce costs. And while hurdles exist, they should be viewed more as speed breakers rather than road barriers. As a medium of information storage and dissemination, the internet has and is emerging a clear winner. Its rate of penetration has far outpaced the growth of other popular media such as newspaper, radio and television.

B2B transactions are however relatively high value in nature and organisations are slow to change their traditional systems for the supply chain management. The reasons for the growth in B2B e-commerce are many. In an increasing competitive scenario, e-commerce offers highly attractive cost saving options. The shift to this process is often driven by the needs of buyers.

Innovative methods of enhancing B2B and B2C levels of e-commerce include:

- 1) CD-ROM catalogues that are linked to the user's online catalogue, enabling him to browse offline and order online.
- 2) Kiosks placed at physical store locations or in shopping malls to introduce users to the easy online ordering options.
- 3) Extranets to link businesses together that conduct regular business to .business transactions and
- 4) Affiliate programmes to drive business to your commerce site from other content related sites.

B2B e-commerce is expected to be the largest mode of transacting e-business and is a global phenomenon. It involves taking internet enabled initiatives to form commercial links with other enterprises, dealers or manufacturers. In this form of e-commerce, a business firm places orders for supplies with another business firms directly over the Internet. Paperwork and time required for processing the order and delivery of the goods are thus reduced to a great extent.

Business to Consumers E-commerce (B2C)

It is for the customers to buy stores from the web. The problem to be recognized in this is to secure payment, using encryption, transaction integrity, quick response, time and reliability.

B2C e-commerce involves selling of goods and services to consumers or end users. It allows them to browse the product catalogue, select products or services and complete the order online.

In a B2C transaction, the interaction is between a consumer and the preferred business. For example, the most popular site is amazon.com,

which is the first online bookseller which has proved a potential competitor to the traditional bricks and mortar booksellers such as Barrens and Noble. In this category of e-commerce, businesses use the internet to offer to consumers sales and services around the world 24 hours a day, seven days a week and 365 days a year, The sites Amazon, Rediff and Uphar are among those belonging to this category. These websites are meant for selling goods directly to consumers through the internet. The two-way accessibility of the internet enables operating companies to directly ascertain customer preference and buying trends. Businesses are using these consumer insights to formulate marketing strategies and offer to the customers what they want and when they want. E-business in this mode significantly reduces the costs associated with intermediaries, service centres and mass marketing campaigns. Since e-commerce makes just in time delivery possible, the supplier does not have to store the goods. He can procure them from the suppliers as and when he gets the order from the buyer through the internet.

B2C is the most popular form of e-commerce, wherein the individuals are directly involved in B2C e-commerce, and businesses use the internet for offering their products or services 24 hours a day through global access. The sites Amazon.com and Rediff are among these. These websites sell goods directly to consumers over the Internet. The two way accessibility feature of the internet enables operating companies to ascertain consumer preferences and buying trends directly.

Consumer to Consumer E-commerce (C2C)

Here interaction is between consumer to consumer. For example, in sites like e-Buy Bid or Buy.com, Baazi.com which are auction sites, one can virtually sell and buy any goods (either used or new ones).

This form of e-commerce is nothing but the cyber version of the good old auction houses. If anyone wants to sell anything, all one has to do is post a message on the site, giving details of the product and the expected price and wait for an interested customer to turn up and buy it. The buyer gets in touch with the seller through the Internet and the deal is crossed once the amount is finalised. Online message boards and barter sites are also examples of C2C e-commerce.

Consumer-to-Business E-commerce (C2B)

E-commerce, by empowering the customer, has been strategically redefining business. An example of C2B model of e-commerce is the site Price Line.Com, which allows prospective airline travellers, tourists in need of hotel reservations etc. to visit its websites and indicate their preferred price for travel between any two cities. If an airline is willing to issue a ticket on the customer's offered price, the consumer can then travel to the mentioned destination at his terms.

Business to Employees E-commerce (B2E)

This is concerned more with marketing a corporation's internal processes more efficiently. Customer care and support activities also hold ground. The requirement is that are all self-service with applications on the web that the employees can use themselves.