"Computer science \ E-Commerce"

Fourth Class   ***Dr. Shayma Mustafa***

Course Description

This is one of the most exciting and dynamic areas in business and society today. Our task in this class is to jointly investigate how electronic commerce will change current as well as new businesses.

توضيح: تعتبر التجارة الالكترونية من المجلات الحيوية والمهمة في المجالات التجارية والاجتماعية في عصرنا الحالي، يركز هذا الكورس على مفاهيم التجارة الالكترونية واهميتها في مجال الاعمال التجارية

Subject Structure: 2 Theoretical hours + 1hour seminar

Textbook and Reference

- E-Commerce Fundamentals and Applications by henry chan and raymond lee, 2001.
- Introduction to Electronic Commerce and Social Commerce by Turban et. Al, 2017.
- Internet.

المصادر المعتمدة:

- E-Commerce Fundamentals and Applications by henry chan and raymond lee, 2001.
- Introduction to Electronic Commerce and Social Commerce by Turban et. Al, 2017.
- الانترنت

Grading the course:

- 60% Final exam.

- 40% Quizzes and Project.

Course Goals:

- To investigate the strategic implications of e-commerce with emphasis on existing companies.
- To navigate the broad range of positioning strategies available within the e-commerce landscape
- To develop the ability to quickly and effectively research Internet companies and strategies

1. Introduction:

The Electronic Commerce is commonly known as E-commerce is trading in products or services using computer networks, such as the Internet. Electronic commerce draws on technologies such as mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems. Modern electronic commerce typically uses the World Wide Web for at least one part of the transaction's life cycle, although it may also use other technologies such as e-mail.

توضيح: تسمى التجارة الإلكترونية اصلاحا بال E-commerce وهي عملية التجارة بالمنتجات والخدمات بالاعتماد على شبكات الحاسوب مثل، خدمة الانترنت. هذا النوع من التجارة يعتمد على التقنيات الحديثة مثل التجارة المحمولة، تحويل الالكتروني للأموال وغيرها .... يعتبر ال WWW من أحدث الطرق المستخدمة في التجارة الإلكترونية والتي تكون اخر جزء من دورة حياة التحويلات بالإضافة الى استخدام خدمة ال Email

1.1   Definition of E-commerce: Sharing business information, maintaining business relationships and conducting business transactions using computers connected to telecommunication network is called E-Commerce.

توضيح: تعرف التجارة الإلكترونية بأنها عملية التشارك بالمعلومات الخاصة بالأعمال التجارية، متابعة العلاقات لهذه الاعمال، بالإضافة الى انجاز هذه المعاملات وذلك بالاعتماد على الحواسيب المرتبطة بشبكات الاتصال.

1.2   Electronic commerce and physical commerce:

Generally speaking, e-commerce is about the sale and purchase of goods or services by electronic means, particularly over the internet. We can distinguish two types of commerce: physical commerce and e-commerce. In a physical or traditional commerce system, transactions take place via contact between humans usually in a physical outlet such as a store. For example, if you want to buy a book, you will go to a physical book store and buy the physical book from a sales man. In a pure e-commerce system, transactions take place via electronic means. In this case, you will access a cyber book store and download a digital book from a server computer. These two cases represent the extremes: the ***traditional commerce*** system on one side and the ***pure e-commerce*** system on the other. There are many variants and in many cases, e-commerce and physical commerce can complement each other. For

example, a physical book is ordered by electronic means and it is sent to you via physical means, this called ***Partial E-Commerce.***

توضيح: بشكل عام، فان التجارة الالكترونية هي عملية بيع وشراء البضائع او الخدمات بالاعتماد أساسا على الانترنت. حيث ان هناك نوعين من التجارة وهيا التجارة التقليدية المادية (physical commerce) والتجارة الالكترونية(E-commerce). ففي النوع الأول، تكون عملية التبادل عبر التواصل المباشر بين البشر عبر الطرق مادية مثل المحلات او شراء كتاب ورقي من بائع الكتب، بينما في التجارة الالكترونية تكون عملية الشراء عبر تحميل الكتاب من الخوادم عبر الانترنت. ان هذه المفاهيم مختلفة في العمل الا انها يمكن ان تعمل بشكل متوازي ومكلة لبعض كما في عملية فهرسة المكتبات الكترونيا وبيعها بشكل مادي للزبون وهذا ما يعرف بال التجارة الإلكترونية الجزئية (.Partial E-Commerce)

Table Illustrated the differences between traditional and e-commerce

Traditional commerce	**E-commerce**	**Remarks**
Marketplace	Marketspace	Marketplace has many physical constraints whereas marketspace enables almost unlimited movement.
Mostly fixed pricing	Dynamic, customized, and group pricing	Many different pricing models such as dynamic pricing (e.g. by means of on-line auction), buyer-oriented pricing (e.g. Priceline), and group-oriented pricing (e.g. Mercata) become possible in e-commerce.
Standard product	Customized product	In traditional commerce, standard products are manufactured through mass production to achieve economies of scale.In e-commerce, mass customization is possible (or even becoming a norm) such that products can be tailor-made according to customers' requirements.
Physical catalogue	Digital catalogue (dynamic and	With digital catalogues, updating can be done easily and they can be linked directly to the

(fixed and inflexible)	flexible)	ordering process.
Primarily mass marketing (one-to-many selling)	Multifunctional marketing, in particular one to-one selling (direct selling) and many-to many selling (community)	In traditional commerce, mass media is often used to convey a generic marketing message. With e-commerce, customers can receive a personalized message according to their profiles and buying behavior.
Supply (seller) driven	Demand (buyer) driven	In many e-commerce applications, buyers pull the goods down the demand chain. Companies now manage a "demand chain" instead of a "supply chain."
Physical goods	Digital goods	In e-commerce, some goods can be made completely digital. They can be bought and downloaded instantly.
Hierarchical organization	Networked organization	The internet together with other information technologies create "networked organizations" (e.g. Cisco), which are more effective and productive.
Tend to expand horizontally	Tend to expand vertically	In general, many dot.coms tend to be extremely specialized (go vertical) rather than generalized (go horizontal). This is because many business rules have changed. For example, no matter how big a company is. computer screen. Also, no matter how far the competitors are, they are still "one-click'' away in cyberspace.

1.3   The Development and Growth of Electronic Commerce:

Over the thousands of years that people have engaged in commerce with one another, they have adopted the tools and technologies that became available. For example, the advent of sailing ships in ancient times opened new avenues of trade to buyers and sellers. Later innovations, such as the printing press, steam engine, and telephone, have changed the way in

which people conduct commerce activities. The Internet has changed the way people buy, sell, hire, and organize business activities in more ways and more rapidly than any other technology   in the history of business.

Although the Web has made online shopping possible for many businesses and individuals, in a broader sense, electronic commerce has existed for many years. For more than 30 years, banks have been using **electronic funds transfers (EFTs**, also called **wire transfers)**, which are electronic transmissions of account exchange information over private communications' networks.

توضيح: ان التطور الحاصل في مجال التجارة مرة بالعديد من المراحل خلال الالف السنين وذلك باستخدام أدوات وأساليب مختلفة من عمليات التجارة وتبادل البضائع منها التجارة عبر البحار باستخدام السفن بعد ذلك دخلت مفاهيم مبتكرة مثل الطابعات والمحركات البخارية والهواتف والتي ساهمت في اثراء عمليات الأنشطة التجارية. كما ساهم الانترنت وبشكل فعال في تغير المفاهيم البيع والشراء وتنظيم الاعمال التجارية وبأكثر من طريقة، حيث ادخل مفهوم التسوق الالكتروني لكثير من البضائع، وكذلك التبادلات البنكية الالكترونية عبر شبكات الاتصالات.

1.4   E-Commerce Categories:

فئات التجارة الإلكترونية

1. Electronic Markets: Present a range of offerings available in a market segment so that the purchaser can compare the prices of the offerings and make a purchase decision. Example: Airline Booking System.

1-الأسواق الالكترونية: ان التجارة في هذا النوع تكون خلال تقديم مجموعة من العروض لكل مادة، حيث يمكن للزبون ان يقارن بين مجموعة من الأسعار المتاحة لك مادة واختيار الأنسب كما في عملية حجز تذاكر الطيران.

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2. Electronic Data Interchange (EDI): It provides a standardized system. Coding trade transactions. Communicated from one computer to another without the need for printed orders and invoices & delays & errors in paper handling. It is used by organizations that a make a large no. of regular transactions Example:

2-تبادل البيانات الرقمية: تتخذ التجارة في هذا النوع نظاما موحدا من حيث لترميز للتعاملات. حيث يتم تناقل هذا الترميز بين الحواسيب بدون مشاكل التأخير والخطأ الناتجة عن الطلبات والفواتير الورقية. يستخدم هذا النوع في المؤسسات والشركات التي تحتوي على عدد كبير من المعاملات.

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3. Internet Commerce: It is use to advertise & make sales of wide range of goods & services. This type of e-commerce can done in two way which are business to business & business to consumer transactions.

Example: The purchase of goods that are then delivered by post or the booking of tickets that can be picked up by the clients when they arrive at the event.

> **2-تجارة الانترنت:** يستخدم هذا النوع من التجارة في عملية الإعلان عن البضائع والخدمات عبر مواقع
> **الانترنت،** يتخذ هذا النوع شكلين من التعاملات وهم business to business & business to consumer
> Transactions مثل عملية شراء كتاب وايصاله عبر البريد او حجز تذكرة واستلامها حال الوصول للمطار.
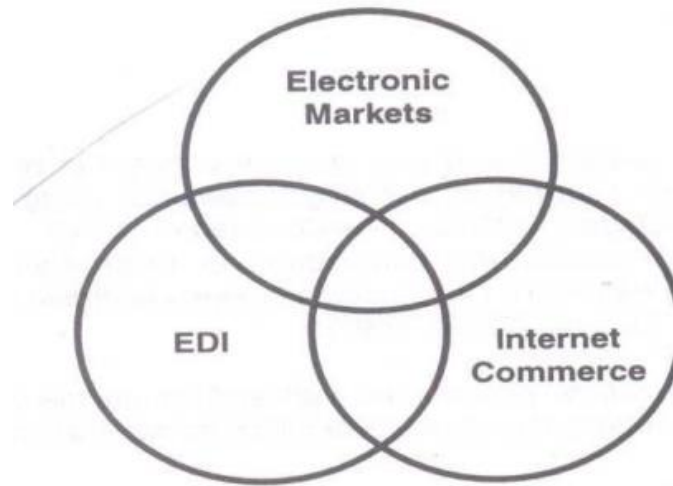
The three categories of E-Commerce