2-THE IMPACT OF ELECTRONIC-COMMERCE

E-commerce and e-business are not solely/only الوحيدة the Internet, websites or dot com companies. **It is about a new business concept تتعلق بكافة الافكار التي تخص الاعمال that incorporates all previous business management and economic concepts.** As such, e-business and e-commerce impact on many areas of business and disciplines of business management studies.

2-1 Field influenced by Ecommerce/Ebusiness

1.   **Marketing** – One of the areas in which it impacts particularly is direct marketing issues of

- on-line advertising الدعايات على شبكة الانترنت
- marketing strategies استراتيجيات التسويق
- Consumer behavior & cultures.

In the past Marketing was mainly door-to door, and mail order using catalogues or leaflets. This moved to telemarketing and TV selling with the advances in telephone and television technology and finally developed into e-marketing.

2.   **Computer sciences** – development of different network; computing technologies and languages to support e-commerce and e-business. For example linking front and back office legacy systems الانظمة القديمة with the "web based" technology.

3.   **Finance and accounting** – on-line banking; issues القضايا او المواضيعof transaction costs; accounting and auditing.

4.   **Economics** – the impact of e-commerce on local and global economies; understanding the concepts of a digital and knowledge-based economy الاقتصاد المعتمد على المعرفةand how this fits into economic theory.

5.   **Production and operations management** – the impact تاثير of online processing has led to reduced cycle times.

a- It takes seconds to deliver digitized products المنتجات الرقمية and services electronically.

b- The time for processing orders معالجة الطلبات can be reduced from days to minutes.

c- Production systems انظمة الانتاج are integrated دمجت with finance; withبالاضافة الى marketing and other systemsوالانظمة الاخرى as well as business partners and customers.

Web-based Enterprise Resource Planning systems (ERP) can also be used to forward orders directly to designers and/or production floor within seconds, thus cutting قلصت production cycle times by up to 50 per cent, especially when manufacturing plants مصانع الانتاج , engineers and designers are located in different countries. In sub-assembler companies, where a product is assembled from a number of different components sourced from a number of manufacturers, communication, collaboration and coordination are critical (Think of Apple products).

From Production and operations management (manufacturing) – moving from mass production to demand-driven, mass customization customer pull rather than the manufacturer push of the past.

6.   **Management information systems** – this includes
- Analysis
- Design and implementation of e-business systems within an organization
- Integration of front-end and back-end systems.

7.   **Human resource management** –

On-line recruitingتوظيف , working from home and 'entrepreneurs' working on a project by project basis replacing permanent employees.

8.   **Business law and ethics** – the different legal and ethical issues that have arisen ظهرت as a result of a global 'virtual' market. Issues such as copyright laws, privacy of customer information, legality of electronic contracts, etc.

2-2 Internet Effect on E-Commerce

With the advent (مجيء) of the Internet, the term e-commerce began to include:

1. Electronic trading of physical goods and of intangibles الغير ملموسة such as information.

2. All the steps involved in trade, such as on-line marketing; ordering; payment; support and delivery.

3. The electronic services such as after sales support and an on-line legal advice.

4. Electronic support for collaboration between companies such as collaborative on-line design workgroup; virtual business consultancy teams.

2.3   Architectural Framework for E-Commerce

Architectural framework of e-commerce means the synthesizing توليف of various existing resources such as DBMS, data repositoryمستودع البيانات , computer languages, software agent-based transactions, monitors or communication protocols to facilitateلتسهيل the integration of data and software for better applications.

The architectural framework الاطار for e-commerce consists of six layers of functionality or services as follows:

1.   Applications services: In the application layer services of e-commerce, it is decided that what type of e-commerce application is going to be implemented. There are three types of

distinguished مميزة e-commerce applications i.e., consumer to business application, business-to-business application and intra-organizational application. Also other application can be made for government and peer as stated below

2. Information Brokerage and Management Layer: This **layer is rapidly** بصورة متسارعة جدا **becoming necessary in dealing with the voluminous amounts of information** البيانات الهائلة الحجم **on the networks.** **This layer works as an intermediary who provides service integration between customers and information providers, given some constraint** في حال وجود بعض المحددات **such as low price, fast services or profit maximization for a client.** For example, a person wants to go to USA from India. The person checks the sites of various airlines for the low-price ticket with the best available service. For this he must know the URLs of all the sites. Secondly, to search the services and the best prices, he also has to feed the details of the journey again and again on different sites. If there is a site that can work as information broker and can arrange the ticket as per the need of the person, it will save the lot of time and efforts of the person. This is just one example of how information brokerages can add value. See https://www.gocompare.com/

3. Interface and Support Services: This layer provides interface for e-commerce applications. Interactive catalogs and directory support services are the examples of this layer.

Interactive catalogs الدليل الري التفاعلي **are very similar to the paper-based catalog, the only difference between the interactive catalogue and paper-based catalog is that the first one has the additional features such as use of graphics and video to make the advertising more attractive.**

Directory services have the functions necessary الوظائف الرئيسية for information search and access**. The directories attempt to organize the enormous amount الكميات الكبيرة of information and transactionsالمعاملات generated to facilitate لتسهيل e-commerce.**

The main difference between the interactive catalogs and directory services is that the interactive catalogs deal يتعامل مع with people while directory support services interact directly with software applications.

5. <u>**Secure Messaging Layer:**</u> In any business, electronic messaging is an important issue. In the case of phone, if the phone line is dead or the number is wrong or there are some hearing difficulties, you are not able to deliver the urgent messages الرسائل المستعجلة .

In the case of courier service, if you want to deliver the messages instantly, it is not possible as it will take some time depending on the distance between the source and destination places, also the big issue will appear as people are working in different day hours depend on where they live. **The solution for such type of problems is electronic messaging services like e-mail; enhanced fax and Electronic Data Interchange (EDI).**

The electronic messaging has changed the way the business operates. **The major advantage of the electronic messaging is the ability to access the right information at the right time across diverse work groups.**

The main constraints المواضيع التي تركز عليها**of the electronic messaging are: SECURITY; PRIVACY & CONFIDENTIALITY through data encryption and authentication techniques**.

5. <u>Middleware services:</u>(البينية) الخدمات الوسيطة The enormous growth النمو الهائل**of networks, client server technology and all other forms of communicating between heterogeneous platforms** (المنصات الغير متشابه

is the reason for the invention of middleware services. The (المختلفة) middleware services are used to integrate التكامل the diversified متنوعة software programs and make them talk to each other.

6. Network Infrastructure: We know that the effective and efficient linkage الربط الكفوء between the customer and the supplier is a precondition شرط اساسي مسبق for e-commerce. **For this reason, a network infrastructure is required.**

2.4 Relation between ecommerce and e-business

Comparison between e-commerce and traditional commerce

Some of the differences between electronic commerce and traditional commerce are explained briefly below.

1. Cost effective

E-commerce is very cost effective when compared to traditional commerce. In traditional commerce, cost has to be paid for the role of middlemen الوسيط التجاري to sell the company's product. This cost is eliminated تلغى in e-commerce as there is a direct link تعامل مباشر bettween the business and the customer. So, the total overhead cost التكاليف الغير مباشرة required to run e-business is less, compared to traditional business.

For example, in running an e-business, only a head office المكتب الرئيسي is required. Whereas in traditional method, a head office with several branches

فروع are required which situated تقع in different places. The cost incurred التي
by تستبدل on labor, maintenance; الصيانة office rent الايجار can be substituted تدفع
hosting a website in e-business method.

2. Time saving

It takes a lot of time to complete لمام a transaction in traditional commerce. E-commerce saves a lot of valuable time for both the consumers and business. A product can be ordered and the transaction can be completed in few minutes through internet**.**

3. Convenience

E-commerce provides convenience to both the customers and the business. Customers can, compare prices between products and choose a desired product المنتج الملائم at anytime and anywhere in the world.

4. Geographical accessibility

E-commerce work better as the organization's website can be accessed virtually from anywhere, any time through internet.

In traditional commerce, it may be easy to expand the size of the market from regional to national level. Business organizations have to pay a lot of expenses التكاليف on investment to enter international market للوصول الى الاسواق العالمية. **In e-commerce it is easy to expand the size of the market from regional to international level. Why?**

5. Introduction of new products

In traditional commerce, it takes a lot of time and cost to introduce a new product and analyze the response of the customers. Initially, cost has to be incurred تدفع to carry استجابة out surveys to understand the customer's opinion. **In e-commerce, it is easy to introduce a product on a website and**

get the immediate feedback of the customers. Based on the response, the products can be redefined and modified to meet customer need. It is quite easy to attract جذب customers from global markets at a marginal costكلف بسيطة .

6. Profit مهمة

E-commerce helps to increase the sales of the organization and achieve تحقق greater profits by increasing sales, cutting cost تقليص الكلف and streamlining operating processes جعل عملية الانتاج بخطوات متسلسلة مستمرة.

The cost paid to the middlemen الوسطاء , overhead, inventory المخزونات and limit reaching potential to consumer will pulls down تخفض the profit of the organization in traditional commerce.

7. Physical inspection

E-commerce does not allow physical inspection تفحص of goods. When purchasing goods in e-commerce, customers have to rely يعتمدون on electronic images whereas بينما in traditional commerce it is possible to physically inspect the goods before the purchase.

8. Time accessibility

Business is open only for a limited time in traditional commerce while it is available 24/7/365 in e-commerce.

9. Product suitability

E-commerce is not suitable for perishable goods البضائع القابلة للتلف and high valuable items such as jewelry and antiques. It is mostly suitable for purchasing tickets, books, music and software and so on. Traditional commerce is suitable for perishable;.

10. Human resource

To operate للعمل in electronic environment, an organization requires technically qualified مؤهلين فنيا وتقنيا staff with ability to update themselves in the ever changing world. E-business has difficulty in recruiting and retaining talented people.

Traditional commerce does not have such problems associated مرتبطة with human in non-electronic environment.

11. Customer interaction

In traditional commerce, the interaction between the business and the consumer is a "face-to-face". In electronic commerce, the interaction between the business and the consumer is "face-to-screen". Since there is no personal touch in E-commerce, companies need to have credibility ورصيد عالي من ثقة الزبائنand high rank reputation سمعة to win over customers' loyaltyللفوز بولاء الزبون .

12. Process

There is an automated processing of business transactions in electronic commerce. It helps to minimize the clerical errors الاخطاء المكتبية. On the other hand, manual processing of business transactions in traditional commerce, there are chances of clerical errors to occur as human intervention takes placed.يحدث تدخل بشري

13. Fraud مهمة

A lot of cyber frauds الاحتيال السيبراني take place in electronic commerce transactions. People generally fear يخافون to give their credit card information. Lack الضعف of physical presence in markets and unclear legal issues give loopholes الثغراتfor frauds عمليات الاحتيال to take place in e-business transactions.

Fraud in traditional commerce is lesser as there is personal interaction between the buyer and the seller.

2.2 Electronic business (e-business) مهمة

E-Business refers to the use of the Web, Internet, intranets, extranets or some combination thereof من ذلك to conduct business لانجاز الاعمال. E-business is similar to e-commerce, but it goes beyond ابعد من the simple buying and selling of products and services online. E-business includes a much wider range of businesses processes, such as supply chain management, electronic order processing and customer relationship management. **E-business processes, can help companies to operate more effectively and efficiently**.

*Definition: "E-business can defined as the areas involved in the running and operation of an organization that are electronic or digital in nature".

E-business includes customer service (e-service) in addition to transform of key business processes through the use of Internet technologies. E-business also used for serving customers and collaborating with business partners.

2.3 Distinguish between e-commerce and e business

1. E- Business is broader in scope نطاق اوسع while e-commerce is subset of it.
2. E-commerce only covers business transactions such as buying and selling of goods and services over the internet.
3. E-commerce essentially involves monetaryالتعاملات المالية trade while in e-business, money transaction is not necessary. Give examples.

Although على الرغم من both e-commerce and e-business are highly integrated and reliant upon each other, they work in different environment. **Usually**

business works in micro environment while ecommerce works in macro environment.

2.3.1 Macro Environment?

It is the major external and uncontrollable factors that influence an organization's decision making, and affect its performance and strategies. These factors include the economic factors; demographics; legal, political, and social conditions; technological changes; and natural forces. Specific examples of macro environment influences include:

- Competitors
- changes in interest rates
- changes in cultural tastes
- disastrous weather
- Government regulations.

2.3.2 Micro environment?

Factors or elements in an organization's area of operations that affect its performance and decision-making freedom حرية اتخاذ القرار. These factors include

- **Distribution channels**
- **Suppliers.**