

The Impact of Electronic Commerce on the Development of Nowadays Society: an Economic and a Managerial Perspective – A Case Study on Romania's Experience

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Abstract: *The paper entitled “The Impact of Electronic Commerce on the Development of Nowadays Society: an Economic and a Managerial Perspective – A Case Study on Romania's Experience” presents the electronic commerce with its definitions, historical evolution and importance, it's the main forms, the advantages and disadvantages of e-commerce, the electronic commerce versus traditional commerce as well as the electronic commerce in Romania.*

In this research we have emphasised the role and the importance of the e-commerce in comparison with the traditional commerce, stressing the fact that it has many advantages that underpin the on-going development and success of this trade: time; the availability of virtual stores: program almost non-stop, every day of the year; the possibility of free decision; the possibility of purchasing products even outside the

borders of the country the buyer; communication, particularly internationally, low cost, the relations with suppliers and customers and its importance for small businesses using e-commerce which can compete with large companies.

Key words: electronic commerce, traditional commerce, development, supply chain management, customer relationship, economic and a managerial perspective, Romania's experience

Introduction

Electronic commerce or e-commerce is the electronic transaction performed using any computer. Such trade means, specifically, any exchange between a seller and a buyer who visits a web site that is performed after a commercial transaction.

E-commerce is defined primarily by the medium itself in which the exchange value that is the Internet, the World Wide Web in which the computers are connected to each other. Such access email clients (e-mail) or system World Wide Web and other information service providers, enabling them to analyse customers' online products and services for businesses (Andam, Z.R., 2003).

In this way, relatively new business achievement requires openness, connectivity and integration. The environment in which electronic commerce is conducted is the global economy in which economic rules lead to continuous transformation of industry and market (Bătăgan, L., Mărășescu, A., Pocovnicu, A., 2010).

1. Electronic commerce – definitions, historical evolution and importance

E-business is a generic term more than e-commerce because it is not limited to sale, offering online services (maintenance services for clients), and keeping in touch with business partners online, and leadership

electronic transactions within the organization (Chan, H., Lee, R., Dillon, T., Chang, E., 2001).

Mobile electronic commerce (or m-Commerce) is carried out through a mobile terminal (Laudon, K., Traver, K.G., 2006), using wireless telecommunications network (wireless) and operates in a context different from the characteristics of e-Commerce hand devices, wireless networks and use different of these devices compared to PCs or laptops (Orzan, Gh., Orzan, M., 2007).

Online marketing or e-Marketing is any marketing activity taking place in the virtual environment by using the Internet. This includes not only advertising that is present on websites, but also other types of online activities such as e-mail and social networking (Laudon, K., Traver, K.G., 2006).

Every aspect of e-Marketing is digital, which means that we are dealing with electronic information is transmitted to a computer or similar device, although naturally it can bind to traditional advertising and sales (Chan, H., Lee, R., Dillon, T., Chang, E., 2001).

Electronic commerce comes with a number of concepts that are characteristic:

a) Intranet - is the internal computer network of a company with the same performance characteristics as the Internet, but which contains documents available to company employees concerned. In this area enter, for example, subsidiaries, affiliates, representatives, etc.

b) Extranet - intranet analogue, adding partners and key suppliers. Extranet site lies at an enterprise value chain (value chain) or supplier chain (supply chain).

c) Supply Chain Management (SCM) - is the idea of integration through e-commerce supplier chain. Nowadays there is a high demand for SCM software (Holcombe, Colin, 2012).

d) Extended enterprise - company transparency to customers and suppliers, knowledge of individual customer needs, profitable relationship between the firm and suppliers, analysing different alternatives sources of supply.

e) Virtual distribution channels - channels are available only through the Internet. It is necessary to rethink the whole supply chain, not enough for a company to open channels of this kind (Stoian, I., Dragne, E., Stoian, M., 2000).

f) Customer relationship - e-commerce is dependent on this type of relationship. Internet type technology helps in achieving

marketing producer individually, i.e., the individual consumer level.

It is difficult to pinpoint exactly when it appeared electronic commerce. There were several predecessors of this trade (Holcombe, Colin, 2012). In the late 1970's, a pharmaceutical company in the United States initiated a simple form of e-commerce B2B (Business-to-Business) using a telephone-based modem allowing hospitals to order pharmaceuticals. This system was later expanded during the 1980's through the PC systems and was copied throughout the United States long before the Internet to become a commercial environment. 1980 took part in the development of electronic data interchange (EDI) (Laudon, K., Traver, K.G., 2006).

The Internet marketing and web introduction in the early 1990's, e-commerce (Chan, H., Lee, R., Dillon, T., Chang, E., 2001) has expanded rapidly. E-Commerce is wide; there are several applications, such as (see Figure no. 1: Applications of e-commerce in nowadays society):

Figure no. 1: Applications of e-commerce in nowadays society

	<ul style="list-style-type: none"> ▪ Home Banking; ▪ Electronic shopping malls; ▪ Buying stocks; ▪ Finding a job; ▪ Participation in tenders; ▪ Collaboration with partners in the online business world; ▪ Customer service. 	
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Source: the authors

2. Electronic commerce – the main forms

Once the nature of transactions, electronic commerce is distinguished by several

forms (see Figure no. 2: "Electronic commerce – the main forms"):

A. Business-to-Business (B2B) consists of all transactions between at least two business partners, are generally performed by

extranet systems. In this connection partners use the Internet, aided by their own names and passwords for websites. Regarding enterprises that use the Internet, they can order directly from suppliers and can receive and pay bills.

This form of electronic commerce requires a variety of financial services that rely on certain items (Holcombe, Colin, 2012):

- Assessment of the solvency;
- Certification of products in terms of quality and delivery thereof;
- Theft protection;
- Fast payment;
- Authorize the sale, settlement, delivery and payment.

Banks are the main providers of such services and are able to ensure the confidentiality of information.

B. Business-to-Consumer (B2C) includes transactions conducted between a business and its customers. The main objectives of this type of transaction are the sale of goods and services, and continuously improve customer relationships. As evidence of success provided by Business-to-Consumer market, e-commerce sites are becoming more and accessed by current and future customers.

C. Business-to-Business-to-Consumer (B2B2C) refers to a business that provides

products or services to a customer's business. By this business he can keep their customers, their employees may be, to which products or services are provided without adding value added tax. An example would be when airlines and travel offers tourist services units generally airline tickets and hotel rooms, their business partners, such as travel agencies, which then provide services to their customers.

D. Consumer-to-Consumer (C2C) is classified as simple type of trade conducted between individuals or consumers. It is characterized by increasing electronic and online auction market and is regarded as having the greatest potential for development of new markets. The C2C submit forms such as organized auction sites, which enables real-time bidding for displaying products on the Internet; and systems and peer-to-peer file-sharing models or exchange.

E. Business-to-Employee (B2E) refers to transactions within a company, for the employees of the company and made its own Intranet system.

F. Government-to-Citizens (G2C) - government of a country providing services to its citizens by means of e-commerce.

Figure no. 2: "Electronic commerce – the main forms"

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| <p>A. Business-to-Business (B2B) consists of all transactions between at least two business partners, are generally performed by extranet systems.</p> <p>B. Business-to-Consumer (B2C) includes transactions conducted between a business and its customers.</p> <p>C. Business-to-Business-to-Consumer (B2B2C) refers to a business that provides products or services to a customer's business.</p> <p>D. Consumer-to-Consumer (C2C) is classified as simple type of trade conducted between individuals or consumers.</p> <p>E. Business-to-Employee (B2E) refers to transactions within a company, for the employees of the company and made its own Intranet system.</p> <p>F. Government-to-Citizens (G2C) - government of a country providing services to its citizens by means of e-commerce.</p> |
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Source: the authors

3. The advantages and disadvantages of e-commerce

Compared to traditional commerce, e-commerce has many advantages that underpin the on-going development and success of this trade.

The buyer is interested in electronic commerce because it can take advantage of benefits (see Figure no. 3: "The advantages of e-commerce") such as (Holcombe, Colin, 2012):

- **Time:** saves time by visiting virtual shops much more than they would visit in real time;
- **Availability of virtual stores:** program almost non-stop, every day of the year;
- **Free decision:** the buyer has a wide range of products and services with a choice depending on certain criteria (financial, aesthetic, ergonomic, guarantees, etc.);

• **The possibility of purchasing products** even outside the borders of the country the buyer;

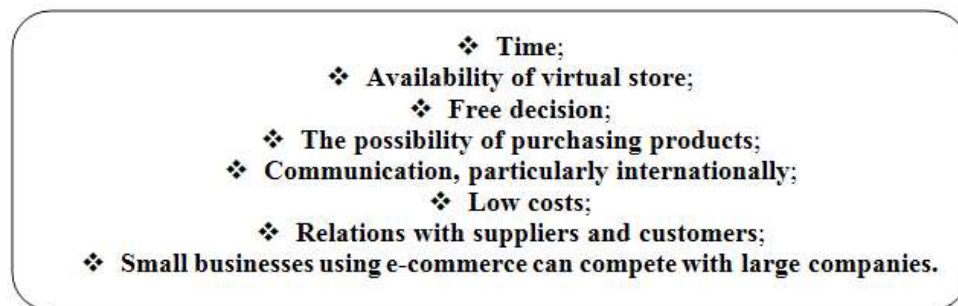
• **Communication, particularly internationally,** which has a high speed establishments on what kind of platform to collaborate to design and develop each product. Using a phone or fax would be practically a noticeable slowdown in speed going through these processes;

• **Low cost,** using the most often web-sites and e-mail;

• **Relations with suppliers and customers** are much better maintained. Thus through a web site, customers are informed of existing products and receive technical support for products purchased;

• **Small businesses** using e-commerce can compete with large companies.

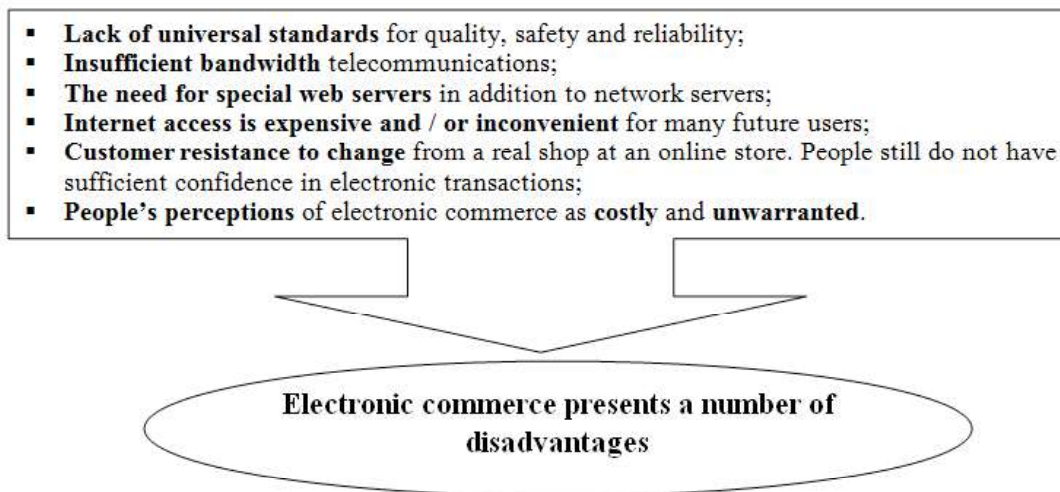
Figure no. 3: "The advantages of e-commerce"



Source: the authors

Also, electronic commerce presents a number of disadvantages (Orzan, Gh., Orzan, M., 2007), standing out issues such as (see Figure no. 4: "The disadvantages of e-commerce"):

Figure no. 4: "The disadvantages of e-commerce"



Source: the authors

- Lack of universal standards for quality, safety and reliability;
- Insufficient bandwidth telecommunications;
- The need for special web servers in addition to network servers;
- Internet access is expensive and / or inconvenient for many future users;
- Customer resistance to change from a real shop at an online store. People still do not have sufficient confidence in electronic transactions;
- People's perceptions of electronic commerce as costly and unwarranted.

4. Electronic commerce versus traditional commerce

The development of e-commerce phenomenon generated questions regarding traditional trade conducted in ways not related to the electronic environment. Movement of people has led to a development of the trade,

which is defined as a plurality of activities relating to a product, the time it was made, by use phase, destruction or consumption thereof (Orzan, Gh., Orzan, M., 2007).

Electronic commerce is not just about trade, but also includes relationships and transfers made between buyer and seller information, information that occurred before and after any commercial activity that took place between them (Popescu, D.V., Popescu, M., 2007). The similarities between e-commerce and traditional commerce are the existence of the same components and the one side and the other, but specific items online commerce, namely (Popescu, D.V., Popescu, M., 2007):

➤ Product or service - these two categories can be physical or electronic form;

➤ Sale location - there are traditional trade location in physical form (shops, supermarkets, outlets etc.), while e-commerce is conducted using the Internet, through a web

site that provides information about products and services;

►Advertising - is an efficient way to persuade Internet users to access a particular website;

►Forms for sale - digital existence and a form for e-commerce (Turban, E., King, D., McKay, J., 2007);

►Forms of payment - in electronic commerce predominantly by Electronic Banking (or e-Banking), representing a form to cash, generally through a bank account and credit card. Securing the page for ordering and connection to a bank needed a functioning e-Banking process;

►Forms of delivery - e-commerce products purchased are delivered by mail, courier or directly from storage.

Regarding the differences between e-commerce and traditional commerce, they are not major, especially considering the phases of business operations. The two forms are distinguished by their trade other aspects, namely (Laudon, K., Traver, K.G., 2006):

►Scope - in general, e-commerce is covered by small and medium enterprises (SMEs). SME strategy priority is to develop competitive legally. This can be achieved through policy strategy to promote the concept of e-Business and SMEs adapt to the latest technology. For smooth running of electronic commerce in SMEs is provided a legal and regulatory framework since 2000. Electronic commerce is defined territory, the Internet is used globally, and this leads to a high number business partners;

►During the making of trade - is an important factor in the evolution of e-commerce and traditional commerce to its delimitation. Electronic commerce facilitates reducing the

time between production and sales, thus ensuring efficiency businesses and consumers can take part in procurement anytime;

►Marketed product categories - traditional trade practitioners sell products and at the same time provide customer service and guarantees. On the other hand, companies that focuses on e-commerce offering for sale products hardware, software, books, tickets for events etc. Instead, it is offered for sale in many food products range because they have low validity periods.

5. Electronic commerce in Romania

Electronic commerce, as a modern business tool, is treated in Romania's economic policy both as a distinct field, aspect resulting from specific regulations adopted on the line regulation of this area, and in the context of economic policy measures relating to the implementation of the information society. Romania was the first country in Europe to be transposed into national legislation, directives adopted at Community level in the areas being considered today one of the most comprehensive legislation in the field (Drăgoiu, Ramona, 2006).

The beginning of electronic commerce in our country is at the beginning of 2004 and was the first e-Commerce system in Central and Eastern Europe at the time (Rădoi, Dumitru, 2005). Although there is a growing interest of consumers towards this type of commerce, virtual stores the number is still small, it is estimated more than 650 such stores (State, O., Costache, I., 2007). When we say that the number of stores is small, we refer to the number of Internet users (over 6 million) and bank cards (8 million). These figures show that the Romanian e-commerce system (State, O., Costache, I., 2007) is still

early on the road, but one thing is certain and that there is a detectable increase in market interest (Rădoi, Dumitru, 2005).

Electronic commerce in Romania began with the first electronic card transactions at the end of February 2004. From February to September 2004 there were only 3106 such transaction and by the end of that year there was a massive increase, reaching to 16,304 transactions. This year when he made his debut electronic commerce ended with a total of 19 410 such transactions in monetary units leading to 3.5 million dollars.

This type of trade Business-to-Business (B2B) in Romania is mainly in the virtual market / digital online trading platform, electronic distributors and service providers. Of all businesses that B2B sites, 28% of them are IT companies, which shows continuous growth in demand for IT products.

Electronic commerce between individuals (C2C) is widespread among young people in Romania and is used mostly for sales / purchases of mobile phones and computer components. Number of sites that practice this type of business is estimated at approx. 1050.

A study conducted in 2008 in order to evaluate e-commerce market in Romania showed that the number of online stores was about 3,000 in 2009-2011, i.e. at the time an increase of 50% in each year. According to this study the first 6 months of 2009 there were 570,000 transactions worth 43.5 million euros, which meant an increase of 68% over the same period of 2008 (Tiliuțe, Doru, 2007).

In recent years can be seen in our continuous development of e-commerce industry in terms of purchasing IT equipment and household products. It provides the legislative framework to ensure a secure future

(Trenge-Jones, A., Malczyk, A., Beneke, J., 2011), is absolutely necessary for this trade in order to protect purchasers of the virtual environment, e-Commerce flawed or criminal being punished (Tsalgatidou, A., Veijalainen, J., 2000). Thus, Romania is falling slowly but surely in the globalization process which seeks to eliminate barriers in information different geographical and economic areas. The e-commerce aims, worldwide, revolutionizing the traditional trade and national of that country's ability to adapt to whatever is current in technical and economic.

Conclusions:

The evolution of the Internet and technology lead to the development of traditional trade in the near future will be part of major transformations. These changes are redefining global trade activity and the basic principles of marketing.

Nowadays, electronic commerce is approached by more and more companies, seeing in this trade a substantial increase profit opportunity. Worldwide, more and more countries turn to e-commerce as an important element in the economy of their own governments.

We presented the concept of electronic commerce, represented by transactions between a seller and a buyer, conducted via the Internet. The emergence of this trade took place in the late 1970's, when a US pharmaceutical company achieved a form of B2B e-commerce through a modem that allowed hospitals to send commands.

The main advantages of e-commerce are reducing execution time of transactions, reduced costs, supplier-customer relationship better maintained. The main disadvantages are the way people think about this trade and their opposition to the transition from a real

shop in the virtual one.

Electronic commerce has emerged in our country in 2004 and since then it can be seen its evolution, particularly in purchasing IT products.

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Cristina Raluca Popescu is currently Associate Professor PhD. at the University

of Bucharest, Bucharest, Romania and PhD. student at her second PhD. in Management at The Bucharest University of Economic Studies, Bucharest, Romania. For Cristina Raluca Popescu the contribution to this paper is the result of the work done during the Doctoral School of The Bucharest University of Economic Studies, Bucharest, Romania, in the field of Management.

REFERENCES:

1. **Andam, Z.R.**, "E-Commerce and E-Business", e-ASEAN Task Force, SUA, 2003, pag. 12
2. **Bătăgan, L., Mărășescu, A., Pocovnicu, A.**, "Economie teoretică și aplicată", Volumul XVII, no. 9(550), Editura Asociației Generale a Economistilor din România, București, 2010, pag. 78
3. **Chan, H., Lee, R., Dillon, T., Chang, E.**, "E-commerce: Fundamentals and Applications", editura John Wiley & Sons Ltd., New York, 2001, pag. 278
4. **Drăgoiu, Ramona** in "Analele Universității din Oradea, Științe economice", TOM XV, Editura Universității din Oradea, 2006, pag. 337
5. **Laudon, K., Traver, K.G.**, "E-commerce: Business, Technology, Society - Third Edition", Editura Pearson Prentice Hall, New Jersey, 2006, pag. 21
6. **Holcombe, Colin**, "Ghid avansat de comerț electronic", Editura Fundației pentru Studii Europene, Cluj-Napoca, 2012, pag. 228
7. **Orzan, Gh., Orzan, M.**, "Cybermarketing", Editura Uranus, București, 2007, pag. 31
8. **Popescu, D.V., Popescu, M.**, "Comerț electronic versus comerțul tradițional", Revista Amfiteatru Economic, nr. 21, februarie 2007, pp. 128-129
9. **Rădoi, Dumitru**, "Comerțul electronic. Perspective pentru România", Revista OEconomica, nr. 3, septembrie 2005, pag. 144
10. **State, O., Costache, I.**, "Comerț electronic și E-Business în România", Revista Amfiteatru Economic, nr. 21, septembrie 2007, pag. 149
11. **Stoian, I., Dragne, E., Stoian, M.**, "Comerț internațional: tehnici, strategii, elemente de bază ale comerțului electronic", Volumul II, Editura Caraiman, București, 2000, pag. 1198
12. **Tiliuțe, Doru** în "Comerț electronic", Universitatea "Ștefan cel Mare", Suceava, 2007, pp. 76-77
13. **Trengove-Jones, A., Malczyk, A., Beneke, J.**, "Internet Marketing", Editura GetSmarter, Cape Town, 2011, pag. 3
14. **Tsalgatidou, A., Veijalainen, J.**, "Requirements for Mobile E-Commerce", University of Jyväskylä, Dept. of Computer Science and Information Systems, Jyväskylä, 2000, pag. 1
15. **Turban, E., King, D., McKay, J.**, "Electronic Commerce 2008: A Managerial Perspective", Editura Prentice Hall, New Jersey, 2007, pag. 81