

ELECTRONIC COMMERCE, PART OF THE INFORMATION SOCIETY

TEODORESCU ANA-MARIA

*ASSISTENT PHD., FACULTY OF ECONOMIC SCIENCES, PETROLEUM-GAS UNIVERSITY,
PLOIESTI, ROMANIA
e-mail: amy_80ro@yahoo.com*

Abstract

This article shows the role of electronic commerce in the digital economy, where information is the main resource. Internet, information society technology vector, made possible transition to a knowledge society at the beginning of XXI century. New economy involves transition from a traditional economy based on resources, to a knowledge-based economy.

The development of information technology leads to major changes in the economic and social fields. In a world of globalization, e-commerce, part of the information society, manages to eliminate geographical barriers between participants at economic transactions.

I presented e-commerce history, definitions. I pointed out the importance of this sector at european level by quantification of indicators. I used a theoretical research and qualitative analysis of the data. I presented values indicators at the european level, the lowest and highest value, and recorded values for Romania.

Keywords: *e-commerce, information society, information technology, internet, knowledge-based economy*

Classification JEL: *D83, Q01, O1*

1. Introduction

Current society is based on the need for communication and information. The information society is the premise of economic and social development that we witness since the '80s. Identified in 1990 as the fifth wave of technology, ICT has revolutionized business models, method of communication.

At european level, since 1994, the attention was focussed on the importance of the information society in economic and social development. In 1994 Council of Europe founded *Council Information Society*. Since 2006, at european level annual report on the information society is achieved.

Based on the concept "computer networks", the term "Internet" was spelled out in 1974 as a network of connected computers that operate due to assembly standardized data transfer protocols

Essentially, the information society is the society based on the Internet that produced and produces new consequences for society by facilitating the process of globalization [3]. We are in a world where progress is paramount to each domain. Starting with the third millennium we can say that we belong to an era of the Internet. Worldwide, every day, thousands of users take advantage of the evolution of information technology, both for personal and professional. Worldwide, a percentage of 40.4% of the population uses the Internet.

2. E-commerce: history, definitions

Trade replaced barter, as exchange of goods, with the advent of money and merchants. Currently, traditional retail is replaced by the electronic somehow, which had a remarkable evolution.

Global e-commerce sales has gradually increased. In 2014, e-commerce sales increased by 21% compared to previous year. It is expected that global e-commerce sales increased over 10% for every year and reached to \$1,506 billion in 2018 [2].

Electronic commerce is field in which information technology mirrors its best potential.

The oldest form of commerce was held in 50'60 years in the airline using database management service for reservations. In the next 10 years, specifically in the '70s, electronic information exchange system was implemented. In 1977 the first stock trading system was used. The concept of electronic exchange emerged in the 80s (for visible through financial markets, precious metals, oil). E-commerce concept was fully recognized in the 90's. In 2000, e-commerce has grown particular, due to lower cost of Internet services. Electronic commerce is the modern form of the purchase of goods and services by removing geographic boundaries at any time via the Internet.

Over time, there have been set various definitions of the term, which reflect the peculiarities of electronic commerce. Thus, Internet Computing Magazine, emphasizes the role of this trade to "*create interest buyers before the sale and ensure consumers after sales support*".

In 1977, the Organisation for Economic Co-operation and Development issued e-commerce definition that refers to all forms of transactions with related commercial activities, carried out at the company, or buyers.

In 1977, the European Information Technology Observatory mentioned that this form of trade is "achieving commercial activities involving stock exchanges via telecommunications networks".

The definition given by the Centre for Resources Electronic Commerce unites participants in this trade: "the purpose of electronic commerce is to merge its extensive network of small firms, government agencies, large corporations and independent distributors in a single community, providing the ability to intercommunicate seamlessly through any computing platform".

"Electronic commerce is any form of use of electronic technologies in every aspect of commercial activity" is the definition given by the Centre for Electronic Commerce Resources (USA) which punctuate the connection between information technology and commerce.

Electronic commerce is the process of sale, transfer and exchange of products, services and / or information via computer networks [4].

E-commerce transactions can be occurred between businesses, households, individuals, governments and public or private establishments. (OECD, 2011).

Electronic commerce can be defined as the process of presentation, sale and purchase of goods and services regardless of time and space, within the seller and buyer meet via the Internet.

It is the process by which information technology makes possible connection between buyer and seller by the sphere of products offered or desired.

Electronic commerce is a reflection of the evolution of the benefits of economic development and communications technology in general and the Internet in particular.

Regardless of actors for electronic commerce (companies, individual buyers) and thus the type of electronic commerce (business-to-business B2B, B2C business -to- consumer, consumer-to-consumerC2C, government-to-business G2B government- to-consumer G2C), the Internet enables the exchange of information between participants in the process of sale. However, it should be specified that electronic commerce besides buying and selling process also means negotiations between companies, hiring, planning, transfer of documents.

Developing countries should embrace e-commerce wholeheartedly as it will enhance their economic and social development, lead to gains in commercial productivity, lower the operating costs of businesses, and enhance the level of domestic integration with international markets [1].

3. E-commerce indicators

Information society and electronic commerce contribute to meeting the objectives set at european level on transforming the economy into one sustainable. Thus they were created indicators to quantify their evolution.

Ecommerce by enterprises

Across the 28 European Union member states, the average of enterprises that have received orders online in 2015 was 86%, up 1 percent from the level of 2013. The same result they had inpreprinderile and small (10-49 employees) and 87% of medium businesses (located between 50 and 249 staff) have received orders online. In 2015, 17% of enterprises used e-commerce, up 3 percent from 2013.

Internet purchases by individuals

According to the results at european level indicators, 43% of europeans have purchased products using the Internet in 2015, up 5 percent from 2013. As shown in table. 1, residents of Denmark were most confident europeans about electronic commerce. 67% of them have purchased online. Romanians stood in last place ranking on Internet purchases, with a rate of only 8%.

Table No 1 – Internet purchases by individuals

	2013	2014	2015
UE 28 average	38%	41%	43%
The highest value	65% (Denmark)	66%	67%
The lowest value (Romania)	5% (Romania)	6%	8%

Source: <http://ec.europa.eu/eurostat>

I analyzed the europeans age who accept this trade (table 2). Therefore, 56% of europeans aged between 20 and 24 years showed interest in purchasing products online. In this age group, 16% of romanians have confidence in this trade, up 10 percent from 2013.

Table No 2 – Internet purchases by individuals (% population aged 20-24)

	2013	2014	2015
UE 28 average	49	51	56%

The highest value	82 (United Kingdom)	79 (Malta)	83(United Kingdom)
The lowest value (Romania)	6	10	16

Source: <http://ec.europa.eu/eurostat>

One cause of the low level of the practice of online commerce in Romania, as in other states, is the small number of Internet users and low Internet skills. In 2013 only 75% of europeans had knowledge of Internet navigation and in Romania only 50% possessed such abilities. At european level, 28% achieved these skills through various forms of schooling (school, college, university). Different courses were organized in educational centers designed to provide IT skills for 13% of Europeans who had the initiative, while 14% benefited from courses offered by the employer. 21% of Europeans showed their characteristic self-taught in IT for 2011. For 2015, 27% of the europeans had competent digital basic level, while 28% have advanced competent. The results of these indicators for the romanians had reached 17% and 9% respectively.

In Romania, persons aged between 25-34 have made purchases on the Internet at the highest level, followed by those aged 35-44.

Table no3 Using Internet Purchases in Romania (% population)

	2013	2014	2015
25-34	9	11	13
25-54	6	7	9
25-64	5	6	8
35-44	5	7	10
45-54	3	4	5
55-64	2	1	2
55-74	1	1	2

Source: <http://insse.ro>

These results are due to the increased rates on the romanians Internet skills. In the period 2006-2013, the population of Romania who owned a low internet skills increased from 14% to 29; the intermediate level from 7-23, and those with high levels of 2 to 5.

Enterprises purchasing via the Internet and / or networks other than Internet

At european level, the percentage of enterprises that purchase over the Internet dropped in 2007-2009 from 30% to 27%. During this period, this indicator has fallen 5 percent for small enterprises. The same indicator for small enterprises also declined, from 33% to 29%. Among small and medium enterprises, only 24% have purchased online in 2009 compared to 28 percent of them for 2007.

Enterprises selling via the internet and / or networks other than Internet

Only 14% of european business category 1 (*Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel, Hotels and other short-stay Provision of accommodation, transport and storage, Post and telecommunications, computer and related activities*) sold online in 2009. Of these, in 2009, only 11% were small enterprises, 18% were medium enterprises. The benchmark of declines from the previous year. Values of the indicator "Percentage of e-commerce enterprises receiving orders", fell as well, from 90% for 2009 to 91% compared to 2008 (table no 4)

Table No 4 – Companies (category 1) selling Internet (%)

	2007	2008	2009
UE 28 average	16	17	14%
The highest value	28 (Ireland)	28 (Ireland)	26 (Croatia)
The lowest value	3 (Italy)	3(Bulgaria)	3(Bulgaria)
Romania value	4	4	-

Source: <http://ec.europa.eu/eurostat>

As for the activity of the enterprises of category 2 (Food and beverage service activities, Travel agency, tour operator reservation service and related activities, Information and communication, Construction, Transport) in 2015 sold online 17%, up 3 percent from 2013 (table no 5).

18% of these companies practiced e-commerce in their own country for 2015 and 8% in other countries within the EU. In Romania, only 2% of companies were sold online in other Member States and 6% in our country.

As obstacles that stand in the way businesses sell online are "*goods and services has not suitable*", "*problems related to logistics*", "*problems related to payments*", "*problems related to ICT security*", "*problems related to legal framework*". The first problem was greeted by 3% of enterprises in the EU 28 in 2013, of which Norway and Iceland

recorded the highest percentage, 8%. Logistics issues, payment issues have prevented 2% of European businesses to sell online. Only 1% of European enterprises have encountered difficulties because the last two categories reported.

Table No 5 – Companies (category 2) selling Internet (%)

	2013	2014	2015
UE 28 average	14	15	17%
The highest value	27% (Denmark)	27%(Czech Republic)	26% (Norway)
The lowest value	5 (Italy)	5 (Italy)	7 (Italy)
Romania value	9	7	8

Source: <http://ec.europa.eu/eurostat>

Value of purchases and sales by internet and / or networks other than Internet

The turnover of enterprises in e-commerce is another very important indicator to quantify the European economy. Thus, for companies with activities in category 2 of economic activity, in 2015 the indicator value was 17, compared to category 1, where the value reached 14.

4. Conclusions

This article begins with a brief history of electronic commerce. I tried to fit this new way of trading in the new society, the information society. Electronic commerce can be defined as the process of presentation, sale and purchase of goods and services regardless of time and space, within the seller and buyer meet via the Internet. Electronic commerce is the process by which information technology enables the connection between buyer and seller by the scope of products offered or desired. It is a method by which the European goal of owning a digital economy can be achieved. Electronic commerce is the field in which information technology mirrors its best potential.

Indicators regarding online orders registered at the enterprise level increased in 2013-2015. Also, 43% of Europeans have purchased products using the Internet in 2015, up 5 percent from 2013. Romania occupied the last place in the rankings, although indicators have increased in 2013-2015. One cause of the low level of the practice of online commerce in Romania, as in other countries, is given by the small number of Internet users and Internet navigation skills.

The indicators regarding "Companies who purchase Internet" have declined in 2007-2009. Small enterprises have registered the biggest declines of the results indicators.

Only 14% of companies from category 1 (*Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel, Hotels and other provision of short-stay accommodation, Transport and storage, Post and telecommunications, Computer and related activities*) sold online, down from 16% in 2007. Another situation occurred in companies from category 2 (*Food and beverage service activities, Travel agency; tour operator reservation service and related activities, Information and communication, Construction, Transport*), where increases have been recorded in 2013-2015. Similarly, the turnover of companies from category 2 increased in 2015 due to e-commerce.

5. Bibliografy

- [1] **Adel A.Alyoubi**, *E-commerce in Developing Countries and How to Develop Them During the Introduction of Modern Systems*, Procedia Computer Science 65 (2015), pp.479 – 483
- [2] **Burcu Kuzucu Yapar, Seda Bayrakdar, Mustafa Yapar**, *The Role of Taxation Problems on the Development of Ecommerce*, Procedia - Social and Behavioral Sciences 195 (2015), pp.642 – 648
- [3] **Drăgănescu M**, *Din istoria telecomunicațiilor în România, comunicare*, Academia Română, 15 aprilie 2003, publicată în vol. Coord. Mihai Drăganescu, *Telecomunicațiile în România. Pagini de istorie*, Editura Academiei Române, București, 2003, pp. 7–33
- [4] **Turban E.**, *Electronic commerce a managerial perspective*, 2006, Ed. Pearson Prentice Hall, p. 4
- [5]**<http://ec.europa.eu/eurostat>
- [6]**<http://insse.ro>