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INCREASING MARKET TRANSPARENCY: THE ROLE OF THE INTERNET AND E-COMMERCE

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Abstract: *"Cyberspace" - a concept until recently considered somewhat obscure and fantasy, has become in the contemporary era common and one of the most exciting trends in business. The emergence and development of electronic commerce represented a huge step towards facilitating economic transactions and to the increase market transparency. The latter is one of the main pillars underlying the theoretical model of perfect competition, and thus of an efficient market. This article aims to investigate how electronic commerce has increased market efficiency by increasing transparency.*

Keywords: electronic commerce; market transparency; Internet.

JEL Classification: L81.

INTRODUCTION

Technological development in recent decades has opened new perspectives in all aspects of life. In the economic field, the emergence and widespread use of Information and Communication Technologies have facilitated the emergence of a new type of commerce, commonly known as e-commerce. It represented the creation of a new market conducting transactions both in terms of physical meaning (the electronic environment) and in terms of supply and demand (putting face to face the consumer desires with the manufacturer's transcend some barriers of space and time). In the last time the share of this trade has grown exponentially, consumers turning more frequently to the virtual environment to trade. Of course, the market can be effective but only in conditions of freedom, and for this to happen; one of the main conditions is a high level of transparency.

The purpose of this paper is to show how the penetration of technical elements in the economic field and, in particular, the development of the Internet have revolutionized the conduct of commercial transactions and had as an effect the increase of market transparency.

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1. ELECTRONIC COMMERCE – A GROWING FIELD

The main purpose of any business is to gain profit through satisfying the needs of the market. The market is the mainstay of both types of trade – but the e-Commerce market is a digital one – based on information technology. Thus, in order to take place e-commerce needs its own infrastructure, which is the support on which the new services and products are being built. They enable the creation of new markets beyond national borders, in which individuals and organizations from around the world are interacting. Among the most important elements that underpin e-Commerce are: the technological component, capital, media and public policy. Regarding technological infrastructure, it is represented most strongly of the Internet, along with the computer network through which data and information are transmitted and received.

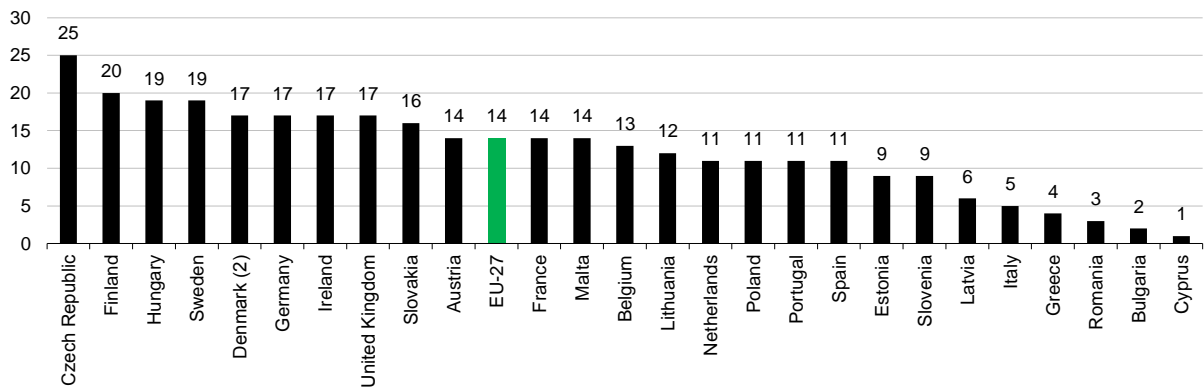
Figure 1 - Global Internet penetration by Region in 2012



Source: We are social (2012), *Social, Digital and Mobile Worldwide. The Key Numbers for Each Region around the Globe*, available at <http://www.slideshare.net/wearesocialsg/we-are-socials-guide-to-social-digital-and-mobile-around-the-world-jan-2012>.

Currently (2012), about 30% of the global population has access to the Internet, with over 2 billion users worldwide (2,076 users in a population of 6,809) according to the statistics made by We Are Social (2012). Of these, 52% live in urban areas and the rest, 48% are in rural areas. North America, as can be seen in Figure 1, is located at the top in terms of public access to the Internet, with a penetration rate of 77%, followed immediately by Western Europe (70%). The lowest rates are recorded in Africa (11%) and Asia (24%).

Figure 2 - Enterprise turnover from e-commerce in European Union countries in 2010⁽¹⁾ as a percent of total turnover



⁽¹⁾ Luxembourg, not available.

⁽²⁾ 2009.

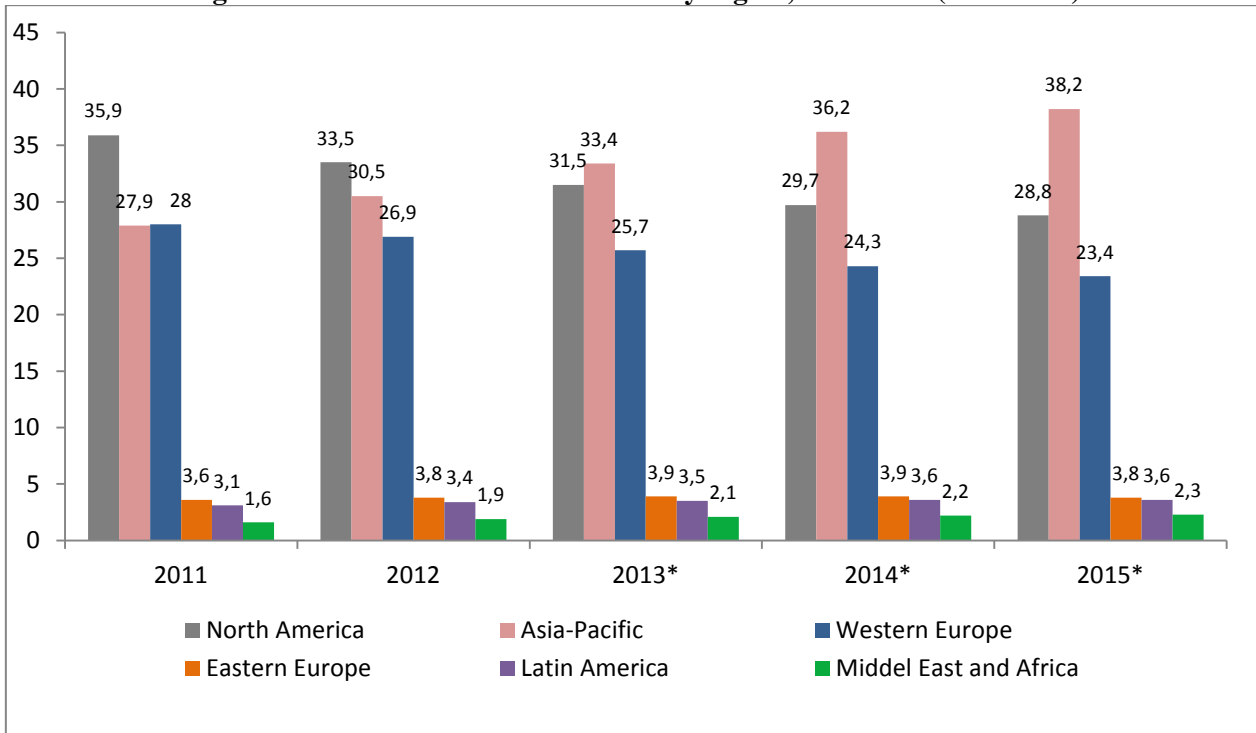
Source: own adaptation from Eurostat (2012), *Information society statistics*, available at http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Information_society_statistics.

Digital commerce is an innovation in the field and at the same time, an extension of the traditional one. Therefore, companies often resort to both versions, their absolute separation being difficult. However, as can be seen in Figure 2, at EU level, the turnover of the undertakings obtained from electronic commerce, in the year 2010 was 14% (Eurostat, 2012). The highest turnover was recorded in the Czech Republic (25%), followed by Finland (20) and Hungary and Sweden (both 19%). In contrast, the lowest recorded turnover of e-commerce companies have been in Cyprus (1%), Bulgaria (2%) and Romania (3%).

The new economy, the digital one, has the following main actors, similar to traditional economy, community producers, traders and consumers, the main distinction being that goods and services are traded electronically, relying mainly on internet.

From its beginnings, which lie in the '1960s - namely in 1968 (Weisman, 2000), when firms used a tool that allowed them to change each standard documents (electronic data interchange EDI - Electronic Data Interchange) - Electronic Commerce has grown exponentially. Thus, in 2011, according to Statistics Brain (2011), global online sales have reached the threshold of 763.2 billion USD, up compared to 2010, when they stood at 680.6 billion USD.

Figure 3- B2C Ecommerce sales share by region, 2011-2015 (% of total)

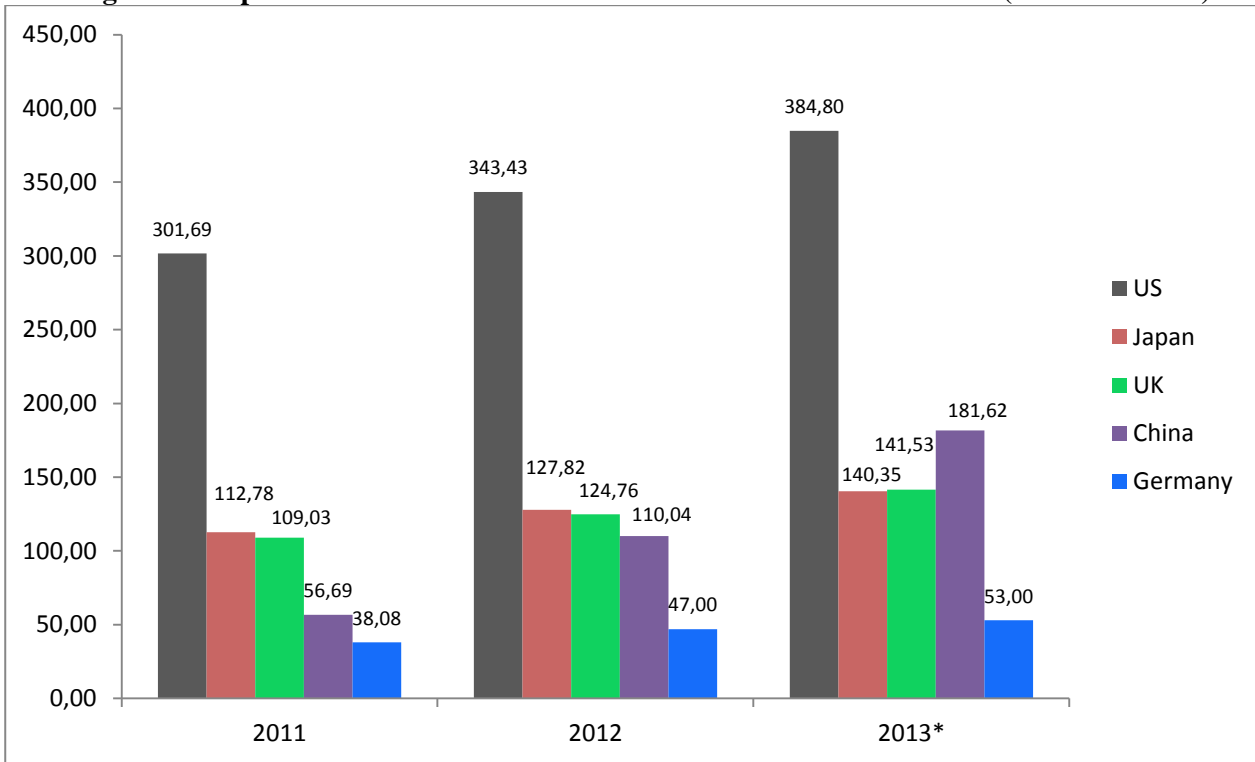


*) provisioned data.

Source: own adaptation from eMarketer (2013), *Ecommerce sales topped \$1 trillion for the first time in 2012*, available at <http://www.emarketer.com/Article/Ecommerce-Sales-Topped-1-Trillion-First-Time-2012/1009649>.

In the division of the region, according to eMarketer (2013), as can be seen from Figure 3, in 2011, North America had the highest share of B2C e-commerce with 35.9%, followed by Western Europe with 28 % and Asia-Pacific with 27.9%. Eastern Europe had a share of 3.6%, and if we take into account the entire European continent, the aggregate value is 31.6%. Currently (2012), we can see that the Asia-Pacific, though it failed to overtake North America has an almost equal percentage of the European continent (30.5% versus 30.7%). At the end of the ranking is the Middle East and Africa with 1.6% (eMarketer, 2013). However, it is expected that over time Asia Pacific will grow exponentially and will exceed North America. For 2015, it is expected, for example, a rate of 38.2% for the Asia-Pacific region, followed by North America with 28.8%, Western Europe 23.4%, and Eastern Europe 3.6% (the European continent would cumulate 27.2%).

Figure 4 - Top 5 countries in terms of B2C Ecommerce sales in 2011-2013 (in billions USD)



*) provisioned data.

Source: own adaptation from eMarketer (2013), *Ecommerce sales topped \$1 trillion for the first time in 2012*, available at <http://www.emarketer.com/Article/Ecommerce-Sales-Topped-1-Trillion-First-Time-2012/1009649>.

However, e-commerce is an evolving field that continues to grow rapidly, especially in countries in transition. Currently (2012), the global leader in e-commerce market is the United States of America (343.43 USD billions), as can be seen from Figure 4. The country is followed by Japan (\$ 127.82 billion), which is almost on par with the UK (\$ 124.76 billion), followed at its turn by China and Germany. For 2013 experts say that if on one hand the U.S. will maintain their supremacy, second place will be occupied by China which will overtake thus, Britain and Japan.

With the growth of e-commerce, the ability to differentiate traders that use e-commerce of those using traditional trade decreases as the latter are using more frequently electronic techniques. In most cases e-commerce activities are not identified separately from the traditional ones, in the company accounts.

2. THE ADVANTAGES OF E-COMMERCE IN INCREASING MARKET TRANSPARENCY

Currently, the use of Internet is not new to most people, but, instead, a necessary skill. Importantly, the modern lifestyle of the society is alert, and individuals have less time available to travel to the physical premises of the companies. Accordingly, online transactions are preferred as they provide the possibility to compare prices and choosing the lowest (Diacon and Donici, 2011, p. 391).

Simply put, e-commerce is the fastest trade of all time, running in real time and in the easiest way possible. This market via online services and the Internet, encompasses the entire world, and is accessible anytime and anywhere.

Information and knowledge have become the key factor of production, and the new technologies determine the share of the productivity firm increase (Işan, 2002, p. 18).

In terms of market and economic theory, one of the most important effects of using the Internet is certainly increase in the market transparency, something unimaginable just 20 years ago.

Originally telephony (and in the first instance telegraph) enabled businesses and individual consumers to access in real time important information regarding the evolution of prices in the major markets of the world, facilitating the communication between business partners. However, the Internet was the one who paved the way for one of the highest levels of transparency known to mankind, so far.

Electronic commerce builds practical advantages and traditional trade patterns, plus the flexibility offered by information technology. This was attributed to the welfare growth of the traditional features. Thus, e-commerce is the holder of almost "unlimited" possibilities. For Companies, all kinds of benefits can be achieved thanks to it: cost reduction, higher efficiency, higher profits mainly through innovations in products and global market access, etc. Thus, electronic commerce is one of the areas with great potential for development in this century and this is because of the opportunities and advantages offered by the new form of commerce based on knowledge.

Market transparency is achieved primarily by facilitating cooperation and communication between groups participating in electronic commerce. These groups can be located both within the organization (e.g. departments of companies that communicate with each other and share information to achieve a number of activities or projects) and outside it (groups of firms that cooperate in creating products or services and communicate with clients) (Meşnită, 2002, p. 25).

Electronic commerce offers the possibility of conducting work 7 days a week 24 hours from 24, eliminating otherwise some physical restrictions of communication. Thus, the information is disseminated in a shorter time, both for the consumer and for the company. These are well structured and can be easily accessed. For example, information about customers and target market are managed more effectively through the use of databases.

Consumer standing in front of its personal computer can obtain information about the quality, price and nature of the product they wish to purchase from a larger number of companies that sell it. Pre and post sales services (including health) are improved significantly. Also for business, vendors are easier to found.

Moreover, the Internet allows people to postpone the time of purchase (or to hasten) facilitating in this way **the formation of prices**. For the firm, this translates into the reduction of the cycle of commercial activity (the period between the time of order placement and the time of delivery of the good or service provision). For example, in physical space, the price information varies from manufacturer to manufacturer, as they circulate harder. For a consumer this translates into more complete information on the various price levels for a product on the market, for the same level of quality, he can choose the lowest price. Consumers found it harder to move in physical space in a relatively small time to obtain a wide range in the level of prices for a particular product. Now, this is partly removed, the time spent is considerably less than that which would require displacement in physical space.

The circulation of information is facilitated by e-commerce and courier services. This allows a more rapid adjustment of inventories and, through this, a reduction of inefficiency producers. Thus, e-commerce stocks are reduced without movement being produced only requested products and thereby reducing variable costs. Moreover, they are only one category of costs that can be reduced. When companies turn to the Internet and electronic trade, they can cut a far wider range of costs, from the ones associated to business cycle to the one of staff.

Internet plays a major role in combating market opacity. Therefore a firm, regardless of size, can enter (or exit) with greater ease in any market and even become global by changing its vision and by promoting values such as openness, support new technologies, promote individual effort and creativity. By this monopolistic behaviour is limited and the electronic environment cannot be controlled by only a few companies. Customers, regardless of where they are, can access the company website without the barrier of physical movement. Theoretically a firm, regardless of size, has immediate access to the global market. Firm size decreases in importance in these circumstances. Organizations can no longer identify with physical premises, but with a certain

image, promoted by the Web page, which is often "wearing the style and personality of the leader" (Popescu, 2007, p. 58). Physical location in the management of the organization is sometimes reduced to a minimum, which can be managed from anywhere.

In this context, new opportunities and new product sales opportunities for small firms arise. For example, on any electronic marketplace compared with a traditional one, meeting a growing number of carriers in the supply-demand is becoming more likely. Therefore, in addition to increasing the transparency of the market, through e-commerce the atomicity of supply and demand is at the highest level known so far (another condition of the theoretical model of the perfect competition).

Simply put, e-commerce has the effect of increase of market transparency at the macro level and at micro level a higher productivity. Digital solutions that take the place of traditional applications offer many opportunities to businesses and individual consumers. Services are targeted to customers, products are traded faster and the number of errors is reduced. So far, in addition to the terms offered on the stock market, electronic commerce makes the closest market to the model of perfect competition.

However, with all the advantages and innovations in the field of trade, it should be noted that the Internet (default the electronic environment where the transaction takes place) includes a number of barriers and vulnerabilities. This explains why e-commerce is not used to its full potential. These vulnerabilities can be attributed mainly to technical issues, organizational issues, lack of trust (which includes lack of information and security risks) and legal barriers (Schaub, 2004, pp. 14-15). Lately, however, they have seen a decline in the extent to which people are becoming more informed, using with more confidence electronic commerce, and the Internet, the relevant regulations and the safety standards are becoming more efficient.

CONCLUSIONS

This century is one of speed and information of a society that Drucker named "knowledge applied knowledge", a society where the Internet plays a crucial role. Without doubt it is a digital age, of the electronic media applied to all the levels of society, especially in the sphere of trade as the society is one of consumption.

Electronic commerce in bulk cannot be appreciated and understood at its true size and value if it is "broken" of traditional commerce. Many of its forms are in fact extensions of traditional commerce, of the classic methods of business in a new environment - the digital one. The physical

environment has been replaced of an electronic one in which access to information can be almost instantly, and the barriers of space and time have been removed.

The new form of commerce has opened possibilities that seemed unimaginable, both in increasing firm profitability and in increasing the market transparency. This is beneficial both for the end consumer and for the market mechanism as a whole.

Although modern form of trade that is not being used to its maximum potential, it provides so far, by increasing its transparency the nearest form to the free and efficient market.

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