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The impact of the Internet on the business environment

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Abstract

It is almost universally accepted that the Internet plays an increasingly higher role in each of our lives. Whether we refer at our job or business, whether it's about information, communication and relaxation, all are related to this technological innovation. It's such a vast, complex and yet permissive environment, that arouses interest in many of us. The enormous potential brought in the development of a business, stimulated the appearance and promotion of new concepts, such as electronic business (e-business) and electronic commerce (e-commerce). Over time, this has proved to be not only viable electronic alternatives, but also extremely profitable alternatives, of the traditional way of doing business or commerce. In this paper I've done a research on the impact of the Internet on business, focusing on the changes brought by the Internet in running a business.

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Introduction

In its historical evolution, mankind has witnessed and actively participate in the development of more agricultural, industrial, technical and scientific revolutions. All these revolutions have had an impact on the economic development of human society. On the other hand, they have brought also major qualitative leaps

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that led, in time, at the improvement of the living standards of people on a global scale.

In today's business world, technology is seen as an important catalyst for the restructuring of commercial activities and business development strategies. Digital technologies have proven to be the drivers of economic growth and competitiveness.

XXI century will surely be remembered by historians as a period of unprecedented change in the business world. Within a few years, entire industries have been radically transformed, hundreds of thousands of new companies appeared, huge fortunes were lost or won by entrepreneurs and investors. All of these were the results of digital technology. New technologies such as the Internet, digital television, mobile phones, household appliances and "smart" electronics have become mainstream use. This opened the way for new ways of doing business, ways that were not seen since the Industrial Revolution. Many people have referred to this process as "e-business revolution" (electronic business revolution), an idea that has captured the imagination of many companies, governments and people everywhere.

Practice of the advanced countries has proved that even the using of new technologies requires a series of investments in the technical means, especially human resources, the benefits of e-business are increasingly evident at both micro and macro. Lack of initiative and involvement in the process of transition to the digital economy can have serious consequences both on the survival / maintenance / development organization and the economy sector, region or country as a whole (Caraiani, 2008).

The evolution of the Internet in the world and in Romania

The Internet can be a very useful tool for any company, large or small, local, national or global one, when is used in an appropriate manner (Cohut, 2005).

For worlds business environment, the technological revolution that is represented by the Internet, has created a planetary scale framework designed to provide producers an opening to consumers around the world and a permanent interactive dialogue with them. This opening to consumers has important implications for any business man who consider the Internet a tool to promote his interests nationally and internationally (Dinu, 2005).

In terms of number of users, the implications of the Internet are increasingly higher. The international statistics provided by Internet World Stats shows that the world population reached 7 billion, of which 2 billion are Internet users.

WORLD INTERNET USAGE AND POPULATION STATISTICS						
June 30, 2012						
World Regions	Population (2012 Est.)	Internet Users Dec. 31, 2000	Internet Users Latest Data	Penetration (% Population)	Growth 2000-2012	Users % of Table
<u>Africa</u>	1,073,380,925	4,514,400	167,335,676	15.6 %	3,606.7 %	7.0 %
<u>Asia</u>	3,922,066,987	114,304,000	1,076,681,059	27.5 %	841.9 %	44.8 %
<u>Europe</u>	820,918,446	105,096,093	518,512,109	63.2 %	393.4 %	21.5 %
<u>Middle East</u>	223,608,203	3,284,800	90,000,455	40.2 %	2,639.9 %	3.7 %
<u>North America</u>	348,280,154	108,096,800	273,785,413	78.6 %	153.3 %	11.4 %
<u>Latin America / Caribbean</u>	593,688,638	18,068,919	254,915,745	42.9 %	1,310.8 %	10.6 %
<u>Oceania / Australia</u>	35,903,569	7,620,480	24,287,919	67.6 %	218.7 %	1.0 %
WORLD TOTAL	7,017,846,922	360,985,492	2,405,518,376	34.3 %	566.4 %	100.0 %

Fig 1 – Number of Internet users in the world

As we can notice in the figure above, in mid-2012, about 34% of the world population, that means over 2.4 billion people use the Internet, figures that have increased by 566% compared to the reference year of 2000.

The Internet using in the world is uneven and creates large gaps between different regions. As we can see in figure 2, Asia is the first in terms of number of users, with 44.8% of the total number of users, followed by Europe with 21.5% and North America with 11.4%.

This situation is caused by unequal distribution of population by continents, Asia having over half of the global population, well above the occupants of the following positions.

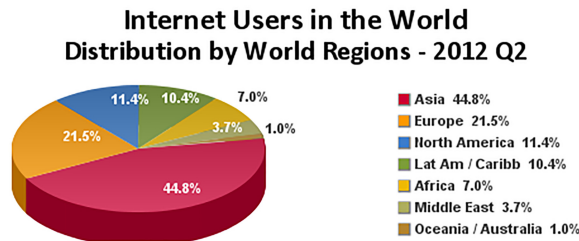


Fig 2 – Distribution of Internet users by region

Internet provides to the underdeveloped regions many development opportunities. Used properly, it can reduce existing economic gaps much easier than through traditional means. The understanding of the advantages, however, must be placed in the context of global competitiveness.

In June 2012, among the European countries with the most Internet users are Russia, Germany, Britain, France and Turkey (Figure 3).

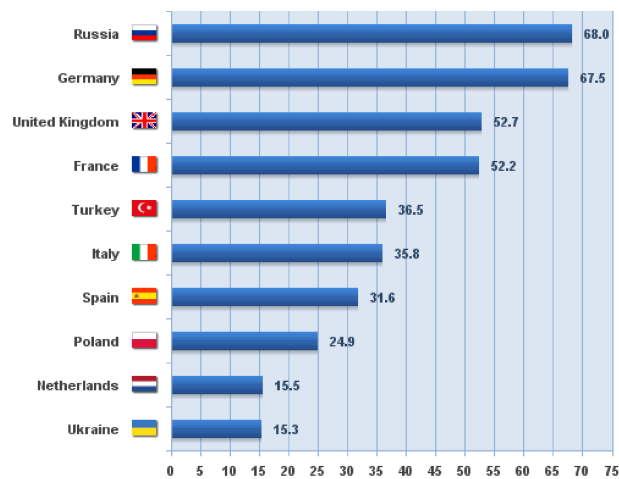


Fig 3 – Top 10 European countries with the most Internet users (million people)

In the European Union, the countries with the most Internet users are Germany, with 67.5 million and a penetration rate of 83%, United Kingdom with 52.7 million and a penetration rate of 83.6%, France 52.2 million and a penetration rate of 79.6%, Italy 35.8 million and a penetration rate of 58.4% and Spain with 31.6 million and a penetration rate of 67.2%.

In what concerns the web in Romania, there are still many issues to be recovered to reach the level of the other countries, the main causes being attributed to the size of investment and the level of Internet penetration

in Romanians homes. (Caraiani, 2008)

Information and communication technology has really made the entry on the Romanian market between 2005-2008. The subscribing to mobile networks increased from 10.2 million in 2004 to 27.1 million in 2009, which means an increase from 1.4 to 3.6 subscriptions per household. Broadband access increased from 1.4% of households in 2004 to 38.7% in 2009 (Euromonitor International, 2012).

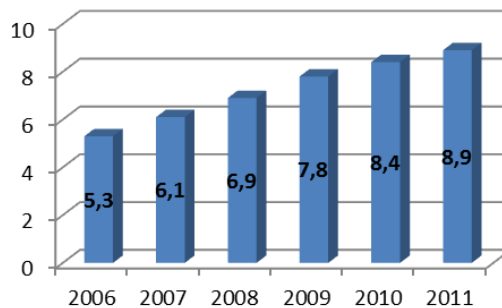


Fig 4 – The number of Internet users in Romania between 2006-2011 (million people)

In early 2006 in Romania there were over 5 million Internet users, according to statistics provided by Euromonitor International. Compared with 2000, when there were approximately 800,000 users in Romania, in 2011 the number of users has increased by over 1000%. This can be explained by the unprecedented development of information infrastructure, the increasing of the income and not least the growing need for information.

In June 2012, the number of Internet users in Romania reached 9.6 million, which means that about 44% of the population currently uses the Internet according to the international statistics provided by Internet World Stats.

Of the total households in Romania, more than half (52.0%) had a home computer in 2012, a proportion higher than in 2011 (46.8%). Among households that have a computer at home, almost three quarters live in urban areas (74.7%). Both the number of internet connections in fixed broadband installed to individuals and those installed to businesses increased in 2012 with 8%, so that at the end of 2012 were recorded 3.2 million individuals connections and 0.34 million businesses connections. Compared to the end of 2011, the penetration rate of fixed broadband Internet access per 100 inhabitants is 18.6%, up with 1.4 percentage points, while the penetration rate per 100 households increased by 3.3 percentage points to 45.2%, according to ANCOM (National Regulatory Authority for Communications) statement.

Romania is among the countries with the highest speed of Internet in the world, namely the fastest broadband connection. Thus, Romania was the fifth in 2012 in a ranking released by Bloomberg. Our country is exceeded in the ranking by Latvia, Japan, South Korea and Hong Kong. The top 10 also includes, after Romania, Belgium, Switzerland, Bulgaria, Israel and Singapore. In comparison, the United States are just on the 14th place and China is on 123.

The Internet usage increases continuously in the last years in Romania and the Internet becomes a mass medium. Even if at the beginning the Internet was covering the younger generation from large urban centers, it gradually expanded to older generations or to people from small and medium cities.

Browsing the Internet anywhere and anytime is a practice increasingly used in Romania, the interest of users to access the Internet from their mobile phone is becoming higher, according to the statement of Edward Lovin, executive director of the ANCOM. According to the numbers, telecom operators reported at the end of 2012, a total of four million active connections to mobile broadband subscription based, with 57% higher, and 3.1 million active connections mobile broadband through prepaid cards, with 86% higher compared to the end of the previous year. Simultaneously, penetration rates of mobile Internet access (number of connections per

100 inhabitants) registered increases, so that at the end of 2012 the penetration of active connections to access mobile Internet increased by almost 14 percentage points, reaching a level of over 53% of the population.

There is a strong correlation between income levels and the development of information and communication technology (IT&C). South Korea is the world leader in IT&C development as it has the highest penetration rate of mobile broadband (91.0% of the population in 2010) and a penetration rate of fixed broadband connections of 98.2% of households in 2011.

According to a study of McKinsey Global Institute that examines the impact of the Internet on economic growth in 13 countries that together cumulate over 70% of the world economy, these are the main implications of global Internet:

- The Internet is now used in every country, in every sector, in most companies, and by more than 2 billion people and it is still growing. The online commerce generates a volume equal to about 8.000 billion (B2B + B2C).

- The Internet generates 3.4% of GDP of the 13 countries, a percentage higher than agriculture (2.2%), utilities (2.1%) or education sector (3%). It is estimated that, worldwide, the Internet generates added value of 1.672 billion U.S. dollars, or 2.9% of GDP.

- While the Internet accounts for around 6% of GDP in advanced countries such as Sweden and the United Kingdom, in 9 out of the 13 countries its contribution is below 4%, leaving tremendous room for further Internet development.

- The study shows that, in the mature countries, the Internet accounted for 10% of GDP growth over the past 15 years, and its influence is expanding. Over the past five years, the Internet's contribution to GDP growth in these countries doubled to 21%. If we look at all 13 countries in their analysis, the Internet contributed 7% of growth over the past 15 years and 11% over the past five. This is a reflection of small and medium-sized enterprises (SMEs) receiving a performance boost from the Internet.

- A recent study made by the University of Munich showed that an increase with 10% of the penetration of high-speed Internet cause an increase in GDP / capita with 0.9-1.5 percentage points;

- Internet usage has resulted in a 10% increase in profitability of companies, half of the gain being determined by business growth, and the other half by cost reduction;

- Some jobs have been destroyed by the emergence of the Internet. However, a detailed analysis of the French economy showed that while the Internet has destroyed 500,000 jobs over the past 15 years, it has created 1.2 million others, a net addition of 700,000 jobs or 2.4 jobs created for every job destroyed. This conclusion is supported by McKinsey's global SME survey, which found 2.6 jobs were created for every one destroyed.

- In France, the United States and Germany, 40% of Internet users visit a price comparison Web site every month. They search for hard-to-find items or information. Beyond its impact on GDP, the Internet creates substantial value for users, ranging from €13 (\$18) a month per user in Germany to €20 (\$28) in the United Kingdom.

The influence of technology

How we will determine the rapid technological development of the Internet, as a means of social and commercial relations, to change our attitudes towards trust? How will brands manage to create social networks and social networks to create brands under the increased risks arising in electronic businesses? How will affect the electronic businesses the competition? How will electronic businesses improve the quality of the services? These are just some of the questions to be answered to determine the relationship between human and business relationships and electronic business development.

The answer could determine how people enter into relationship with technology and with themselves. Many companies go through a restructuring of traditional sales activity, trying to implement online sale systems. Of course, this restructuring is still regarded with some reticent by consumers.

The Internet has created opportunities and challenges for existing businesses and start-ups that have direct relationships with customers. Regarding the supply chain, some intermediaries have emerged, while others have been replaced. New business models have emerged which showed to organizations how to use technology to achieve a competitive advantage and a bigger income (Gay et al, 2009).

To be competitive, the organization must adopt new technologies to develop low cost in exploration consumers behavior, to establish close relationships with its consumers and develop loyalty. Not only are new types of products, but there are also new competitors, new markets, research methods, and more, that stimulate the entrepreneurs to be competitive, innovative and creative all the time. Through the Internet, the organization can build or enhance competitive advantage, an advantage that should be based on real facts, that is different from competitors offer and also is important to potential customers.

The Internet is fast, efficient and full of resources that helps anyone to find what they need. An online presence offers prestige to a business, improve brand visibility and increase the confidence of potential customers in the company's offer. Recent studies are showing that the lack of online presence induce customers the feeling that they are dealing with a small and poor company, becoming reticent regarding the purchase of the product. A modern business, regardless of size, is without an online presence either a local business only, with no practical application at distance, either a simple implemented business, without much perspective in time and space.

In the book *E-shock 2000*, launched in 2000, Michael de Kare Silver - visionary advisor of the Internet - proposed ten retailers policy options in order to survive in the so-called new economy. The adoption of the Internet was seen as essential for survival.

De Kare Silver stresses that the options do not condemn physical stores to disappearance, but rather show how they can adapt to increased levels of interest in electronic shopping.

As Rowley says in 2002, "integration of electronic business sector with traditional businesses" can be made relative to functional areas such as: production, finding sources, logistics, marketing, human resources, sources of investment and financing, performance criteria.

Here are some of the ways that technology has changed the way a company works (Middleton, 2010):

Global news instantly, global impact instantly - news, ideas and information travels faster.
Geography is not that meaningful anymore - location is a factor that is increasingly less important in making economic decisions. Companies operates on the computer where they find the best offer in terms of skills and productivity.

From nine to five became 24 hours a day, seven days a week - now, companies operates in three shifts, depending on the three major zones: the Americas, East Asia / Australia and Europe. The "working day" term loses its meaning in a global state in which electronic communication can take place at any time in day or night.

Size matters less - small companies can now offer services that, in the past, only large companies could provide them. In addition, the cost of setting up a business are decreasing and as a result, many small companies will appear.

Customer service changes - questions and commands that today are still led by phone can be managed via the Internet with a considerably lower cost.

Short deadlines become shorter - institutional investors and stock analysts claim a lot of public companies.

The Internet levels the playing field - companies who believe that small firms that make much noise on the Internet is not a threat to their core activities built on years of careful planning and research activities of strengthening the brand and marketing are wrong. The Internet placed the newcomers on an equal footing with large corporations, allowing them to compete for new businesses.

People - a precious resource of maximum importance - the key challenge for companies will be to hire, to retain quality people and to extract the value that they can offer. Companies will need to convince the best employees that working for them increases their individual value.

The use of new technologies as main method of innovation and restructuring activities of an organization - regardless of the activity profile, size, membership of public or private sector - acquires a new dimension in the

recent years, namely a strategic one.

In the last decade, the environment in which the businesses are growing has changed radically by:

- Taking the control by the client, which doesn't support to be perceived as a member of the community;
- The changes in customers attitudes towards the products and services that need to:
 - Be adapted/configured to meet its needs;
 - Be provided in a manner as practical as possible;
 - To be delivered when it is convenient to the client;
- Market globalization: client often wants to have products / services of worldwide level.

Global competition has changed customer expectations and the development of digital technologies has changed their experience. When customers bought only from stores, by phone or mail order, their ability to compare the quality and prices was limited. The Internet allows individuals or companies to study all the offers and to buy in the most simple way, from home or work.

The Internet is changing every aspect of our lives, but the business environment is the most affected of the rapid and significant changes. Today, both large companies and small ones are using the web to communicate with their partners, to connect to their systems and databases and to make transactions. The e-business:

- Becomes the area in which the power of traditional information technology integrates with the Internet, and also with a new vision of running a business;
- This is not just a way to sell on the Internet, but also helps to improve customer service, to modernize the supply chain and all types of sales, developing "business-to-business" relations;
- Automates the orders process, increases the number of markets, reduces the costs and put forward the competitiveness;
- Allows companies to analyze their potential customers and to allocate resources properly;
- Allows businesses to be active 24 hours a day.

Companies from all sectors are beginning to adopt new economic paradigm - restructuring for e-business. First companies that adopted this strategy were from the following sectors: telecommunications, information technology, audio-visual and multimedia content production. This companies became the "giants" of today. But there are also new small innovative companies that have found niches in the internet related services market, multimedia content and software. The new paradigm can be implemented in all sectors, there are already known successes in the tourism industry, banking, stock exchange, computer and software sales, book sales and other merchandise.

Adopting this paradigm leads to significant increases in productivity and lower costs in all sectors of the traditional industry. On the other hand, the digital revolution doesn't mean only to use the Internet as a platform for electronic commerce. The real challenge for companies is re-engineering the organization and business processes in order to increase productivity by using the Internet and make their presence felt in the global market.

Conclusions

Information technology is no longer an extension of the business, it became the main driving force of change. The traditional approach that information technology was used to assist / automate the current activities in an organization is currently outdated because of the:

- profound structural changes from the production of goods and services;
- implementation of the new concept of re-engineering the business processes;
- evolution of information technology and Internet applications that provide new opportunities of innovation and support for these processes.

Electronic businesses are not only a trend, they represent a revolutionary approach of the "making business" concept. There are changes in how information is used, in contacting the customers, suppliers and employees,

in marketing, promotion mode, and so on.

In the recent years we can observe a proliferation of the commercial application that take advantages on public operating standards that the Internet offers. Companies operating in various sectors (banking, entertainment, telecommunications, distribution) change their way of doing business to take advantage of the power of the new technologies.

The technology doors were wide open to a new global economy, an electronic one. However, online businesses are not simply build on rapid distribution of information. There is also a premise for the continuous change that, by its nature, requires constant improvement and innovation. To compete, we need to innovate faster than our competitor that is trying to do the same. And, of course, it can be anywhere, in any country of the world.

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