

## **THE IMPACT OF IT ADVANCE OF SMES' FOR THE ROMANIAN ECONOMY**

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*The advance of IT is a powerful force of economic developments. The developing countries perceive IT as an opening to achieve access to knowledge and services. The internet is one of the IT parts that bring value added for organizations as well as for whole economy. Even though internet was created as a medium to distribute information, it became an instrument for the organisations to promote and sell their services and products around the world.*

*It was initiated an exploratory research in order to determine the state of IT within the Romanian organizations and its impact for the Romanian economy, making an allowance for the fact of considering as starting point the idea that between IT and economical development is a positive relation, and that IT development requires and generates high skilled educated labour,. Mainly, the targeted companies were SMEs.*

*Key words: Competitiveness, development, IT, management, SME*

### **1. INTRODUCTION**

One of the powerful forces of economic development is the advance of IT. The developing countries perceive IT as an opening to achieve access to knowledge and services. The internet is one of the IT parts that bring value added for organizations as well as for whole economy. [1]

Even though it was created as a medium to distribute information, it became an instrument for the organisations to promote and sell their services and products around the world. Even conventional technologies are undergoing considerable

transformations due to information technology applied in manufacturing process, product developing and e-commerce.

It was initiated an exploratory research in order to determine the state of IT within the Romanian organizations and its impact for the Romanian economy. It was made an allowance for the fact of considering as starting point the idea that between IT and economical development is a positive relation, and that IT development requires and generates high skilled educated labour. Targeted companies were SMEs.

### **2. FRAMEWORK OF ROMANIAN ECONOMIC DEVELOPMENT**

The Romanian economy was in transition after the events from December 1989. Its economic development has been constrained by the centralized economy inherited from the former communist regime.

The government had played a fundamental role in the creation of a framework for the structural and systemic changes needed to promote economic reforms. A set of economic reforms was issued. The major accent was on the privatization and restructuring of the economic system.

The government made great efforts for the approach of a market economy. Unfortunately, only few reforms had effective results. This fact created a downward spiral of events that led to economic backup by 1997.

Legal reform had a slow pace also. Business units from the private sector were in very different conditions and did not exist a unique set of recommendations applies to all.

The reform of large state companies took place very slow, generating the increase of losses. Energy-intensive companies continued to function uneconomically, while the government falsely held the price of energy low, in this manner moving economic troubles to upstream industries. Labor-intensive industries created demands for subsidies and direct credits from the State budget.

In spite of this contradictory development, all measures and restructuring underlined their target to increase the pace of reforms and to assure EU accession in 2007.

Although it is a country with a large population in Balkans, Romania shared the same institutional problems of the Southeast Europe region. Despite the fact that the country ranked at a good position in the human resources, the infrastructure and the investment indicators, it had an unsatisfactory economic and financial performance ranking.

Competitiveness also requires the ability to cooperate as a cluster. It depends on the capability to form strong alliances and partnerships. At the industry level, business associations can participate in efforts representing business sector before government.

The Romanian companies with a long tradition and exportable products and services have to exploit the new opportunities from European markets. The organizations that do not have tradable products and services for international markets and which supply only the national market, can investigate the trends in bordering countries with greater experience.

### **3. INTERNET**

In three years the Net evolved into a very large communication and trading centre with more than 90 million people. It was one of the technologies with the fastest development. It took more than 30 years for the radio to reach 60 million people and for television 15 years.

The companies have the opportunity to create completely new businesses and to exploit markets that never could have reached before. The Net deconstructs the fundamental nature of business transactions. The traditional roles of manufacturers, suppliers and distributors changed because the links in the supply chain are wired. It became easier to deal with multiple suppliers in real time and compare products, qualities, prices, services. Many theoretical benefits have been identified such as promotion of information flow, market transparency, and price discovery, facilitation of industry coordination and reduction or elimination of transaction costs. [6]

Internet is an almost pure manifestation of marketing principals and practices. In this environment is possible:

- organizations with different sizes to compete in more equal terms;
- allows to a firm to open direct channels of communication with its customers;
- the success of a site is not always directly proportional with the amount of money spent on design it, in comparison with the success of advertising campaigns. [13]

In internet the firms of all sizes are more equal in the competition for consumers because the pages that comprise company's site can be available to the same segment of consumers as another firm's site, without significant additional expenditure. New approaches to sale and market are evolving. It is important to discover what type of person use this way, which is the current profile of a typical internet user. [7]

Internet represents a significant new opportunity for a company to distribute its products and services direct to consumers. The web pages are used for major tasks as attracting new customers via marketing and advertising, developing new information based products, serving the existing clients via customer service and support function, developing new markets and distribution.

According with [8], the use of the new technology will serve for the provider for lowering costs and increase productivity, improving the way the service is delivered, customizing the service, collecting data on customer needs and build relationship with customers.

The important point is how should a company markets its products to consumers via internet. [3]. It appears to be a lack of established methodologies for successful internet marketing. Different researchers suggested some general criteria in order to evaluate web site effectiveness. Some of these are: number of hits and time spent, number of visitors, interactivity and feedback, regular updating.

The internet nature is interactive, spaceless and timeless. Consequently, the services and products are marketed differently than the conventional way. In many cases internet was not only another medium, it became the main medium for an organization's operation. There are some companies which perform their business only by internet [9]

The marketing on the internet is termed as "cyber-marketing". Cyber-marketing was defined as the set of actions, tools and techniques implemented by an organization to promote the growth of its commercial activities using the internet. [5] In addition, internet facilitated electronic commerce – "ecommerce" with business values such as direct savings, new sales channel, and time to market, customer service, customer relations and brand image [2].

The growth of internet users and web sites generated an increase of internet providers, intensifying competition and decreased prices. [10]

#### 4. INTERNET, E-COMMERCE AND M-COMMERCE IN ROMANIA

After 1989, Romania began to evolve toward a market economy. Many changes and positive evolutions could be observed in different areas. One of the most important steps was realized in the

information and media development, as an explosive opening to the world, and corresponding IT shortcuts. The growth of internet started to be visible after 1995. Unfortunately the rhythm of the growth is not big enough comparing with other European countries.

The number of internet users is very small comparing with that one from Western Europe. It is one of the lowest numbers counted in Central and Eastern European countries. Romania has 23 millions inhabitants.

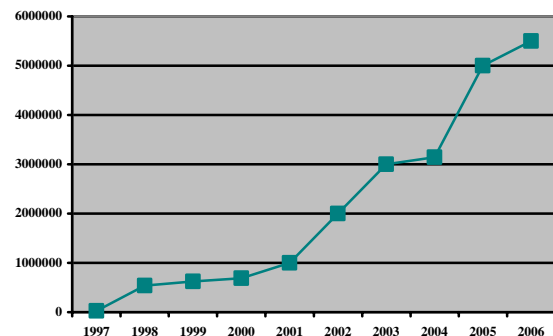


Fig.1 Evolution of the number of internet users (Source: [12])

The costs of internet access are still higher for Romanians. The costs are usually combined with the phone line fees and are prohibited for an average family. Telecommunication costs are between the biggest in Eastern Europe. Until the end of 2002 the market was a monopoly. Nowadays the regulations which protected the monopoly expired and the market is open for competition. [4]

#### 5. THE STATE OF ROMANIAN SMEs'

The figures that are presented below regarding the state of Romanian SMEs' in 2006 as well as other information about entrepreneurship are based on the Annually Report regarding the State of SMEs', published in 2007 by the Ministry for SMEs, Minister for Development and Phare Program for Technical Assistance in Developing SMEs' – "Being Competitive".

The year 2006 registered the biggest number of active SME, with an increase of 11.2% in comparison with 2000. The total number of active SMEs was 463504 – 88.62% micro-enterprises, 9.37% small enterprises and 2.01 % medium enterprises. (Source: [15])

The big percentage of micro-enterprises is due to the fact that they are the first step of an entrepreneur, but is also the result of a set of institutional, legal and fiscal factors. For example, the tax is only 1.5%-2% from the turn-over, while for the other firms is 16%. The structure of Romanian SMEs' is services 77.47%, industry and energy 12.27%, construction 7.5%, agriculture 2.77%.

Romania is behind other countries from East and center of Europe from the point of view of two main indices: the weight of research and development in PIB (ex. 0.4% in Romania, 0.5% in Bulgaria) and the penetration rate of internet in households (ex. 30% in Romania, 17% in Bulgaria). In the same time, there are great differences regarding the access at ITC and its usage in the Romanian companies.

The gap between the usage of ITC between the Romanian SMEs' and Romanian big companies is bigger than the gap between Romanian big companies and the European ones.

## 6. METHOD AND RESULTS

An Exploratory research was carried out in order to evaluate the state of IT in Romanian SMEs'. The survey had more than 40 questions. There are presented only some of them. The aim of exploratory research is to offer information for the set-up of an international project proposal in the FP7, in order to improve the level and results of IT implementation in SMEs'.

Q1. Do you consider that IT is a condition for the market competitiveness of your organization?

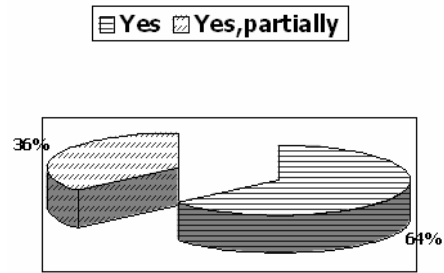


Fig. 2. IT as condition for competitiveness

Q2. Do you appreciate that the organization invested in information technology?

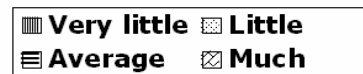


Fig. 3 Opinion about investment in IT

In spite of the fact that more than 60% considered IT as a condition for competitiveness, only 18% of the firms have great investment in it.

Q3. How many persons are exclusively employed in IT in your organization?

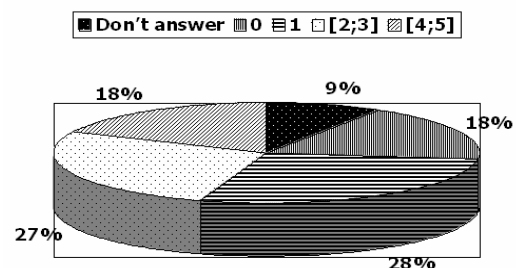


Fig.4 Number of persons employed in IT

The great percentage of the companies which do not have any person employed exclusively in IT is a weak point for Romanian organizations. These activities are supported by persons that have other tasks and are not so interested in the IT development.

Q4. Are developed electronic marketing activities in your organization?

Sometimes  Yes  No

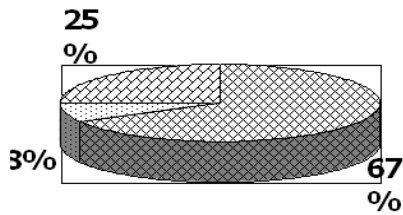


Fig.5 The development of e-activities

The e-activities are not developed in a quarter of Romanian firms, only two thirds of them having a constant activity in this field. More than a quarter from the interviewed persons could not tell anything about the types of e-activities from their companies. The most common electronic activity is market research.

Q5. Which are those activities?

Don't answer  Market research  
 Advertising  Promotion  
 Auctions  Competition Research

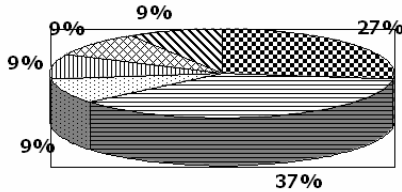


Fig.6 The types of developed e-activities

Q6. Does your organization use ICT in the process approach for reaching a maximum productivity (if the case)?

Don't answer  It is not the case  
 Yes  Yes, due to productivity

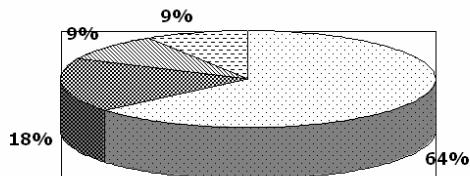


Fig.7 ITC for increasing productivity

The lack of knowledge about using ITC in order to increase productivity is proved by the big percentage of those who did not answer at the question – 64%. Only 10%

are using it. The same situation can be observed about re-engineering, 64% do not use ITC and 18% do not answer.

Q7. Did your organization use ICT for the re-engineering process (if the case)?

Don't answer  Yes  No

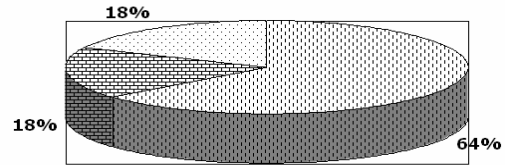


Fig 8 Using ITC for re-engineering

Q8. Is it concerned your organization about developing a sustainable development attitude?

Don't answer  Yes  Yes, using IT

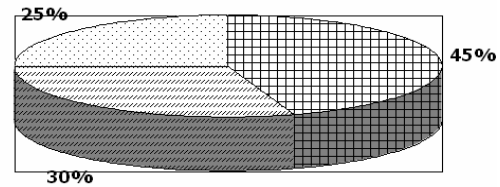


Fig. 9 ITC& sustainable development

The fact that more than a half of organizations are interested in sustainable development is a very good aspect. A quarter of firms uses ITC in order to assure sustainability.

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## 8. CONCLUSION

The Romanian SMEs' understood the necessity of ITC development and implementation in order to assure business sustainable development. Entrepreneurs are conscious about the poor state of it in comparison with other European companies.

The results of this empirical research demonstrate once more time the gap between Romanian SMEs' and European ones. It is necessary to invest more in ITC as well as in the human resource employed in this field.

The development of e-activities represents a priority for our firms. They have to use this way in order to increase their market access and to diminish the negative effects of budget constrains and less funds. [11] The re-engineering and the increase of productivity are domains where ITC has to be more implemented.

Further research has to be done in order to provide reliable information for long run strategies for sustainable development. The researchers and entrepreneur have to concentrate for it.

The main goal of this empirical research was to offer the basis for a comparison and a common approach about ITC between researchers, entrepreneurs and their colleagues from European countries.

## 9. ACKNOWLEDGEMENT

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