

Internet as an important element of the information society and e-business development

Internet ako dôležitý prvok rozvoja informačnej spoločnosti a elektronického obchodu

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Abstract: The Internet is a main element of development of the information society, particularly in Europe, where it can help to remove national boundaries, and create a truly European economics and information society. The information society represents the most fundamental change in our life, with huge opportunities for all people. Information and Communication Technologies (ICT) allow for new forms of partnership between companies, suppliers and consumers, improving the way they work and the products and services they offer. Electronic Commerce as a general concept covers any form of business transaction that is conducted electronically, using telecommunications and computer networks. Such transactions occur between companies, between companies and their customers, or between companies and public administration.

Key words: information society, Information and Communication Technologies (ICT), Internet, e-business

Abstrakt: Internet je hlavným prvkom rozvoja informačnej spoločnosti, najmä v Európe, kde pomáha odstraňovať národné hranice a vytvára skutočne európsku ekonomiku a informačnú spoločnosť. Informačná spoločnosť reprezentuje zmeny v našom živote, spojené s obrovskými možnosťami pre všetkých ľudí. Informačné a komunikačné technológie (IKT) poskytujú nové formy spolupráce medzi firmami, dodávateľmi a spotrebiteľmi, zdokonaľovaním nových postupov práce, výrobkov a služieb, ktoré ponúkajú. Elektronický obchod vo všeobecnosti zahŕňa akúkoľvek formu obchodnej transakcie, ktorá je vykonávaná elektronicky, využívaním telekomunikácií a počítačových sietí. K takým transakciám dochádza medzi firmami navzájom, medzi firmami a ich zákazníkmi alebo medzi firmami a verejnou správou.

Kľúčové slová: informačná spoločnosť, informačné a komunikačné technológie (IKT), Internet, elektronický obchod

INTRODUCTION

The Internet is a flexible technology, able to connect a wide array of people, organizations, hardware and software over any communications platform, from telephone lines to satellite systems.

The World Wide Web is the most important element in the process of development of the “new economy”. The Web is only one of many applications that have been developed to run over the Internet since it was conceived several decades ago. Others, such as e-mail, are just as significant, and more are on the way.

Information and communication technologies are necessary to be seen as a tool for the increase of prosperity and corporation competitiveness.

Europe should play an active role in the development of the more equitable information society, which offers fair chances of inclusion to all countries.

Problems connected with the information society are also discussed in the works of Popelka (2000); Sobotka (2002); Hennyeyová, Okenka (2004).

Program eEurope has been very successful in extending Internet connectivity, and has helped to obtain the adoption of the current legal framework for electronic communications and for e-commerce. However, the effective use of the Internet has not developed as fast as its connectivity. Policy attention has therefore shifted towards the support to the effective use of ICT through an increased availability of high quality infrastructure, the availability of attractive services and applications, and the encouragement of organizational changes. The changes are concerned also with international business and with the role of Internet and its services in business. The following authors devoted their attention to the above mentioned questions: Hennyeyová (2004), Horská (2002), Kretter (2004), Podolák (2004).

MATERIAL AND METHODS

The Information Society will affect most aspects of our lives, so policies are as diverse as the regulation of entire industrial sectors to the protection of each individual's privacy.

One policy initiative that covers all of them is the eEurope 2005 Action Plan, a sort of high-level "policy accelerator" that focuses attention on and pushes forward progress in the main eEurope policy priorities:

- e-business,
- e-government,
- e-health,
- e-inclusion,
- e-learning, and
- security.

Each eEurope priority therefore stimulates the development of a number of specific policies.

The European Information Society sector has grown partly due to the European initiatives such as the creation of the Single Market, the adoption of harmonised standards such as GSM, and the liberalisation of the telecommunications sector. Today, there are two main areas of regulation in the Information Society sector: *transmission* and *content*.

Policies have shifted their aims from helping European industry develop new products and technologies to the stimulation of the appearance of new services and e-business.

The increased use of information and communications technology (ICT) has had a radical impact on the way we live. We now talk about a new "e-economy", encompassing all the different ways that the new technology affects how we earn and spend money. ICT has not only provided us with products that are innovative in themselves: they are among the principal motors for change in the modern economy. Technology is now considered as a real part of the economic system: knowledge has become the important factor of production in leading economies.

Electronic commerce is a technology for change. Major benefits will accrue to those companies that are willing to change their organization and business processes to fully exploit the opportunities offered by electronic commerce.

One possible definition of *electronic commerce* is: "...any form of business transaction in which the parties interact electronically rather than by physical exchanges or direct physical contact".

However, while accurate, such a definition hardly captures the spirit of electronic commerce, which in practice is far better viewed as one of those rare cases where changing needs and new technologies come

together to revolutionize the way in which business is conducted.

RESULTS AND DISCUSSION

The term "e-business" covers both e-commerce (buying and selling online) and the restructuring of business processes to make the best use of digital technologies. It will profoundly affect all aspects of the European economy and the way people will work in the 21st century, offering opportunities and posing challenges to companies and consumers across Europe.

Modern business is characterized by ever-increasing supply capabilities, ever-increasing global competition, and ever-increasing customer expectations. In response, businesses throughout the world are changing both their organizations and their operations. There are lowering the barriers between the company and its customers and suppliers. Business processes are being re-designed so that they cross these old boundaries. We now see many examples of processes that span the entire company and even processes that are jointly owned and operated by the company and its customers or suppliers.

Electronic commerce is the means of enabling and supporting such changes *on a global scale*. It enables companies to be more efficient and flexible in their internal operations, to work more closely with their suppliers, and to be more responsive to the needs and expectations of their customers. It allows companies to select the best suppliers regardless of their geographical location and to sell to a global market.

Electronic commerce can be sub-divided into three main categories:

- business to business (B2B),
- business to consumer (B2C),
- business to government (B2G).

An example in the *business to business* category would be a company that uses a network for ordering from its suppliers, receiving invoices, and making payments. This category of electronic commerce has been well established for several years, particularly using Electronic Data Interchange (EDI) over private or value-added networks.

The *business to consumer* category largely equates to electronic retailing. This category has expanded greatly with the advent of the World Wide Web. There are now shopping malls all over the Internet offering all kinds of consumer goods.

The *business to government* category covers all transactions between companies and government organisations.

E-business does not only describe external communication and transaction functions, but also relates to flows of information within the company, i.e., between departments, subsidiaries, and branches. E-commerce refers to external transactions in goods and services.

For companies, the e-economy has brought new opportunities. E-economy means that businesses can reach many more potential customers (B2C), work more effectively with other businesses (B2B), and with governments (B2G). And they can use the new technology to change the way they work, modernising their production processes and internal organisation, so that their operations can become more effective and efficient.

For consumers, the e-economy brings many benefits. It means that products and services are available to people even in remote areas. And it means that consumers can compare what is offered by many different companies in many different places, to get the best deal. The whole of the commercial transaction, including ordering, transport and delivery, the invoicing and payment cycle can be supported electronically. Dealing with public authorities electronically for customs and tax affairs, and in statistics is already well developed. However, a number of issues such as security, legal questions and procedures still have to be addressed as a part of the electronic commerce business environment.

A distinction should be made between electronic trading of physical goods and services and electronic trading of information-based contents that can be delivered directly through the network (images, voice, text, software...).

The trading of electronic material (software, video, music, images, multimedia works, games, etc.) represents a revolutionary new way of trading, for which the full commercial transaction cycle can be conducted simultaneously via the same network (including delivery), implying specific requirements regarding the proper integration of payment, etc. Depending on the solutions that will be successful in the market place, traded "electronic goods" could create totally new markets and revolutionise some industries (such as publishing). This highly innovative form of electronic commerce is expected to have an important impact on competitiveness and to create employment.

Business benefits of electronic commerce in general are the following:

- reduced advertising costs,
- reduced delivery cost, notably for goods that can also be delivered electronically,
- reduced design and manufacturing cost,

- improved market intelligence and strategic planning,
- more opportunity for marketing,
- access to new markets,
- customer involvement in product and service innovation, etc.

CONCLUSION

Twenty million small and medium sized enterprises (SMEs) are the backbone of the European economy. They represent 99% of all enterprises in the EU and provide around 65 million jobs. They create wealth, foster new ideas and are a key source of new jobs. By using ICT and particularly e-business, SMEs have greater opportunities to develop: they are able to buy and sell over the Internet, reduce their costs and boost productivity, and manage change more effectively. E-business helps to eliminate the barrier of distance, allowing SMEs to trade worldwide from a single website.

SMEs are defined as businesses that employ fewer than 250 people and are independent from other organisations. However, SMEs are diverse: some are dynamic and flexible, with a great power to innovate and a vast range of diversity, others traditional, based on family involvement, embedded in local business environments, and others are start-ups, fragile organisations striving for life and subsistence.

The EU efforts to usher in a competitive and dynamic knowledge-based economy by 2010 will depend greatly on the opportunities for the European SMEs to grow and prosper. The EU has, however, identified a number of challenges facing SMEs in the new digital economy.

Market intelligence such as information on specific markets and countries (market opportunities, business framework, applicable regulations to specific products and services), market surveys and automatic generation of marketing statistics can all be provided electronically and improve the commercial environment, though a number of issues such as privacy need to be addressed.

Contacts between companies can be facilitated by on-line business directories and improved national and regional information relay centres. Contact between companies and consumers can be supported by various means, including on-line advertising and shopping malls. Companies can provide detailed information on their products and services, including technical specification, guidance on use, and answers to common questions, supported by comprehensive navigation and search facilities.

REFERENCES

- Hennyeyová K. (2004): The role of Internet in international business in the process of globalization. In: Bangkok international conference on applied business research – Abstracts + CD ROM. Bangkok, Thailand, Kasetsart university: 36–37; ISBN 974-537-621-3.
- Hennyeyová K., Okenka I. (2004): Selected aspects of development of the Information Society in the enlargement process of the European Union. *Agricultural Economics – Czech*, 50 (8): 349–352.
- Horská E. (2002): New trends in agrarian marketing management. In: Zborník z medzinárodnej vedeckej konferencie: The economics of agricultural production and resource use. Gyöngyös: 34–36; ISBN 963-9256-77-3.
- Kretter A. et al. (2004): Marketing. SPU, Nitra, 288 p.; ISBN 80-8069-390-0.
- Podolák A. (2004): New Economy – an analysis of the competitiveness related to education of students and managers. *Agricultural Economics – Czech*, 50 (8): 345–348.
- Popelka V. (2000): Informatizácia rezortu a informačný systém poľnohospodárskeho subjektu. In: Zborník vedeckých prác z MVD 2000 III, SPU, Nitra: 84–87; ISBN 80-7137-717-1.
- Sobotka P. (2002): Slovensko na prahu budúcnosti (IT ako projekt národnej prosperity). Grada, Bratislava, 110 p.; ISBN 80-247-0446-3.
- <http://www.europe.sk/akcnyplan/actionplan.html>
- http://www.europa.eu.int/information_society/eeurope/2005/index_en.htm
- <http://www.telecom.gov.sk/infspol/index.htm>
- http://www.telecom.gov.sk/telekom/eeurope_sk1.html

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