

DIGITAL ECONOMY - PRESENT AND FUTURE TRENDS

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Abstract: With the advancements in technology there is a significant growth in our societies. The phenomenon known as digitalization brought us the possibilities to develop the digital economy as a new trend with huge possibilities. Digitalization is the key factor to successful business and production of new goods. In this paper we will include some of the most crucial aspects of the digital economy and its key roles in the new era of digital products and internet.

Keywords: Digital economy, ecommerce, digitalization.

1. INTRODUCTION

Since the 2000s, a new phenomenon is starting to change the societies, this phenomenon is known as digitalization. Digitalization of the activities in the economy is defined as using the technology or data and the Internet in the producing processes and producing of products, new forms of household and government consumption, fixed-capital formation, cross-border flows, and finance. The fast pace of changes has led to concerns about possible under-measurement of economic activity and economic welfare associated with digital products. Questioning of the existing measure of GDP is been further motivated by the puzzle of low productivity growth at a time of rapid changes in technology. Social platforms and smart devices have given consumers access to many new services. Since their dramatic growth in the mid-2000s, while GDP and productivity exhibited slow growth in advanced economies.

2. IMPLEMENTATION

Digitalization raises measurement issues and new data needs for external, monetary, and financial sector statistics. Improved measuring's of digital products and transactions can improve measurement of inflation, the balance of payments developments affecting external sector stability, and financial stocks and flows of relevance for countering money laundering and tax evasion. The "digital economy" is a term which defines as online platforms, and activities that exist because of their existence to digital platforms, in sense, the activities that use digital data are part of the digital economy. If defined by use of digitized data, the digital economy could encompass an enormous, diffuse part of most economies, ranging from agriculture. In the Netherlands in 2015, businesses with an online presence accounted for 87 percent of turnover and 86 percent of employment in the business sector. But when the Internet economy was defined more narrowly as online stores, online services and Internet-related ICT services, its turnover share was 7.7 percent, and its share of business employment was 4.4 percent.²⁵⁴

3. GENERAL ASPECTS

The "digital economy" is represents a new concept in policy-making and is replacing old terms such as "the information economy" (1970s), "knowledge economy" and "e-economy" (1980s), "new economy" (1990s), or "network economy" and "Internet economy" (2000s). There is no single definition of digital economy, there is general agreement on certain fundamental principles. The basic idea of the digital economy is that the manufacturing of products, services, lifelong learning and innovation are made possible by modern technology support transmission and processing in the context of market globalization and sustainable development. Beside the economic and social impact, the environmental dimension of the digital economy deserves special attention because it is one of the important aspects of sustainable development and economy.

²⁵⁴ 'E-economy'. Berkeley Roundtable on International Economics, Berkeley, CA, Working paper no. 138. Retrieved July, 2010, from <http://brie.berkeley.edu/publications/WP138.pdf>.

Environmental impact of digital economy is documented with a wealth of research papers from '90s and 2000s. Researches on environmental impact of digital economy are divided in four categories: the impact of ICTs sectors, the impact of electronic applications, the impact of electronic commerce, and social and economic effects.²⁵⁵

Cohen et al. (2000) underlies the presence of digital economy in every important domains of the society and suggests the reconstruction of political agenda, integrating the issues of environmental impact of digital economy. Geels and Smith (2000) try to demonstrate that the oversimplification of researches on environmental impact generates failed technology futures. Miller and Wilsdon (2001) sustain that digital economy modifies the relation of human being with environment, changing the business models. They propose the concept of „sustainable digital economy” as a solution for the environmental issues and consider the possibility to use the creativity and dynamism of digital economy for the good of economy, environment and society. Berkhout and Hertin (2001) draw a distinction between the first, second and third-order effects of ITC on environment, each one classified in positive and negative effects. Sui and Rejeski (2002) see the Internet as being risky and uncertain more than a solution of environmental problem. On the other hand, international institutions, forums and bodies elaborate reports with respect to the opportunities and treats of the digital economy (especially the ICTs industries) and the sustainable development, propose approaches to analysis the relationship between them, and make recommendations for improving dialogue and cooperation (ITU, 2008; ITU, 2009; Huberman, 2010). Whatever approach is used for analyzing the environmental impact of technological development the following aspects are noteworthy:

1. At each stage in their evolution, technological developments have had both positive and negative impacts on the economy, society and environment, the three pillars of sustainable developments;
2. The digitalization is present now in every economic sector and every important domain of society, changing our everyday life (such as: shopping, communications, transportation, entertainments, education, level and style of consumption), the business models, the way to think and act in policy and practice;
3. Given the central role of ICTs in the economy the impact of the economic crisis on ICTs is twofold, i.e. direct and indirect impacts on the ICT sector itself, but also on the productive and innovative use of ICTs across the economy and society. The digital economy grew more slowly during the crisis, but their future development is considered one of the factors that can help the countries to face the crisis (OECD, 2009).

ICT policies need re-examination and refinement in the crisis and recovery. Understanding the environmental impact of the digital economy is important because it provides valuable insights to identify and coordinate environmental policy research, strategic objectives and various instruments in domain.

4. OPPORTUNITIES

Opportunities between digital economy and green economy strategies have been implemented in the developed countries. The role of green economy as a solution for economic recovery is a topic for debate at international level.²⁵⁶ Environment policy and strategy are considered separate from economic and social development policies. Over the last years the vision of sustainable development and environmental issue had become more comprehensive. Over the past 5–10 years a consensus has emerged that ICTs can support the development of the green economy in three principal ways:

1. With decreasing *direct effects* on the environment of the production, distribution, operation and disposal of ICTs through improved energy and materials efficiency, increased use of renewable energy sources, reduced use of toxic materials and improved recycling and end-of life disposal of ICTs;
2. by increasing the *enabling effects* of ICTs on the development of the green economy through improvements in the efficiency of production, distribution and consumption of goods and

²⁵⁵ New Deal, Published by: new economics foundation, London: United Kingdom, July 2008.

²⁵⁶ Forge, S., Blackman, C., Bohlin, E. and Cave, M. (2009), A Green Knowledge Society. An ICT policy agenda to 2015 for Europe's future knowledge society.

services throughout the economy and society; by reducing demand for energy and materials through the whole or partial substitution of virtual products and services for their physical equivalents; and through the dematerialization of human activities and interactions. Thus the largest influence of ICT is likely to be in enabling energy efficiencies in *other* sectors.

These could deliver CO₂ emissions savings five times greater than the total emissions from the entire ICT sector in 2020 (Climate Group, 2008). Up to 30 percent of energy savings worldwide are possible through better monitoring and management of electricity grids.

3. With the supporting *systemic effects* that result in the transformation of the behaviors, attitudes and values of individuals as citizens and consumers; economic and social structures; and government processes. The ICT industry, in partnership with other sectors, has a key role with the play in helping to make society's impact visible and to demonstrate the demand for new ways of reducing that impact. The policy-makers are recognizing the need to put policy in place so they can address the problems of climate change, which act globally other than just regionally or locally.

European Union policy answer is increasingly being seen as some strong combination of the Knowledge Economy and a Green New Deal. Means putting together economic recovery, by the creation of new ICT markets that address the environmental crisis, with the need to move up the value scale, to a knowledge economy. Essentially the vision is of a *Green Knowledge Society* – a Europe in which citizens and enterprises are empowered through ICT in an inclusive, innovative, secure and sustainable knowledge society.²⁵⁷

In order to create the *Green Knowledge Society* the following policy issues should be included in ICT policy agenda for Europe to 2015. A stimulation program for application of ICTs in energy saving roles across all relevant industry sectors.

Ensuring ICT is used in more sustainable behavior patterns by citizens and business; EU production of a next generation of green ICTs with new technologies and patterns – as an opportunity for Europe. The rigorous assessments of direct, indirect and enabling effects of ICT sectors made by Climate Group and the Global sustainability Initiative (2008) underlines that the world can realize a green economy and make the transition to a low carbon economy. This type of opportunity can be categorized into three roles for ICT: standardizing, monitoring and increasing accountability of energy consumption thus rethinking how we live, play, learn and work based on those data; and transforming existing value chains and integrating infrastructure processes.

5. CONCLUSION

Digital economy is a world trend and as we mentioned in this paper. Companies will continue to adopt this trend since it helps them grow much quicker than before. Digital Economy is also a key factor in the economic growth since with it we can achieve more sales better product qualities.

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