

Digital Economy

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Abstract- Information and communication technologies have multiple functions. This means that both, technology and the economic system, are evolving. ICT and digitalization are affecting the economy as a separate sector of the economy. Investment and growth of this sector automatically contributes to the growth of economy.

Another form of influence is the effects of using, applying the technical achievements of these sectors in the economy, that is, influencing the productivity growth of other sectors. Use by the population has a positive impact on the growth of ICT as a sector. A third type of effect is to encourage new technologies to achieve sustainable development.

Rapid technological advances in production of ICT products and services can contribute to the growth of multifactorial productivity (MFP) in the ICT manufacturing sector.

Speed of innovation in the ICT sector itself has greatly reduced the cost of acquiring these technologies. This has made it possible to democratize the use of information and communication technologies, which applies even to the poor, who use these technologies, to improve their living conditions. ICTs also make's easier to implement programs to combat poverty.

In some countries, there has been an overall increase in the share of capital in economic development over the past decade. Information and communication technologies were the area of most investment. Also, studies on investing in information and communication technologies have emerged.

Index Terms- digital economy, tehnology,information, communication, internet.

I. INTRODUCTION

Digital economy is a general term used to describe markets that are based on digital technologies. Elements of the digital economy are: e-banking, electronic insurance, fast online search, training and distance learning, local and international information networks, electronic financial statements, information systems and software.¹ This new economy is a vital sector and an important engine of growth.

The OECD defines the concept of the digital economy as a whole range of economic, social and cultural activities, supported by the Internet and linked by information and communication technologies.

¹ Džamal David Salman, Ekonomija znanja, Aman, 2009.

² Džafar Hasan Džasim, Uvod u digitalnu ekonomiju, Aman, 2010.

³ Falih Hasan Halaf, Ekonomija znanja, Jordan, 2007.

II. TERM OF DIGITAL ECONOMY

Digital economy is intertwined with several similar terms, referring to equally contemporary phenomena. These are electronic economy, information economy and knowledge economy.

Electronic Economy (Digital, Web, Internet Economy) is an economic activity based on digital technologies that integrates with e-commerce and e-commerce and produces and sells electronic goods and services. Payments for e-economy services and goods are often made through electronic money.

The concept of electronic economy emerged in the last decade of the 20th century. In 1995, Nicholas Negroponte noticed and analyzed the growing lack of classic goods in "physical" form (weight, raw material, transport) and the benefits of the new economy (lack of weight of goods, speed and ease of transport (transport) worldwide, the absence of raw materials, etc.).

An information economy is an economy that, in different sectors, depends on information, an economy where the power of informatics is greater than the workforce in the agricultural, industrial and service sectors.²

The knowledge economy is an intensive use of knowledge in the pursuit of economic activities and their expansion, development and growth, characterized by the fact that capital knowledge is greater than the share of physical capital.³

Digital economy brings together several concepts and concepts:

- It is defined as the creation of new products, which are essentially knowledge shaped into a digital language (encryption and coding), which relies mainly on knowledge such as knowledge of computer processes.⁴
- A set of tools and tools that have changed from mechanical to electronic and digital and are managed through computers and Internet networks.
- It is defined as the pursuit of economic activities in the electronic field through the use of communication and information technology through the establishment of effective links between parties in an economic activity.⁵
- Digital economy involves the interaction, integration and coordination between information technology and

⁴ Halid Muhamed al Brahma, Digitalna investicija, Informaciona ekonomija, 2012.

⁵ Farid al Nadžar, Digitalna ekonomija, Egipat, 2007.

communication technology on the one hand and the national economy on the other.⁶

Digital economy is characterized by the work of building an information society by using information and communication technologies for economic development in many ways:⁷

- Information has become a force in modern societies in the age of digital evolution.
- The digital economy is based on developing the ability of people to use knowledge, information and products and to develop them as a key factor of productive economic value.
- Activate online economic activities and projects without the need for individuals and institutions.
- Availability of electronic contracts for conducting business transactions between individuals.
- The digital economy is linked to changes in the industrial environment.
- Digital globalization and the Internet have created an economy with limited access to consumers and market share everywhere in the world.

Informatics, computers and digital communication are the main drivers of the digital economy.

III. SCOPE OF THE DIGITAL ECONOMY

Digital economy is becoming an increasingly important part of the global economy.

Assessing the size of the digital economy is a major challenge and a topic of much controversy. Some authors divide the e-economy into "direct" (pure online business) and "indirect" (mixed digital and analog activities). The Boston Consulting Group estimated the size of the "Internet Economy" no matter what type of business it was. In 2016, it was \$ 2.3 trillion for the G20 group. The growth of the internet economy is extremely accelerating. It increased from 13.5% of GDP in 2013 to 23% of GDP in 2016.

According to World Investment Report (WIR, 2017), digital economy is affecting lives of an increasing number of people. Three-quarters of the population in the most developed economies use the internet, in developing countries the prevalence rate is about 50% and about 25% in Africa. There is also an increasing share of internet use in the economy of individuals. In developed and emerging countries, about two-thirds of residents buy online.

The share of the digital economy in business is booming. This applies to business-to-business transactions as well as business-to-consumer transactions. Internet sales (excluding closed digital networks between businesses), increased by a third between 2010 and 2015 according to the UNCTAD Digital Economy Report (UNCTAD, 2015). The value of business-to-consumer transactions has tripled from 0.5% of global GDP in 2010 to 1.5% in 2015. The internet industry itself accounts for about 4% of GDP in the largest economies.

Governments are increasingly using ICT to interact with citizens and provide services: According to the UN E-Government Development Index, 90 countries offer one or more portals for public information or online services, and 148 countries have at least one form of online transaction services.

IV. THE GOALS OF DIGITAL ECONOMY

Transition into digital economy can provide a strong technological boost to competitiveness in all sectors, as it brings great savings on all inputs. Transportation costs are particularly reduced.

Digital economy, with its many facets, provides new opportunities for business and entrepreneurial activity. It removes the geographical barriers⁸, that is, a new way of accessing foreign, especially very distant, markets. Digital economy provides new tools to solve significant development and social problems. Also, digital economy removes time barriers.

V. CREATING CONDITIONS FOR DIGITIZING ECONOMY

In general, digital economy depends on availability of satellites, international communications, personal accounts, subscriptions to the internet, designing corporate websites and using e-mail to prepare and send financial reports and information promptly. There are several conditions that developing countries must develop and improve, as a prerequisite for digitizing the economy.⁹

- Preparation of e-commerce program.
- Preparing a generation of young people to specialize in finance and e-investment through effective and cost-effective training.
- Development of financial institutions, banks, financial sections of companies and investment bodies to work on a digital basis.
- Supporting companies in the process of reengineering and switching to electronic financial systems.
- Connecting all financial departments and banks to Internet networks.
- Ensuring privacy of data and financial information for individuals and companies.

All these conditions have a common prerequisite, which is the construction of technological infrastructure.

VI. CREATION OF INFORMATION AND COMMUNICATION INFRASTRUCTURE

ICT infrastructure is mainly based on investment in the most widely used information and communication technologies, such as the software and automated media equipment industries.¹⁰ These innovative industries are based on the preparation, design, implementation, and selection of a computer program that includes a series of computer instructions. A feature of these

⁶ Basim Gadir, Ekonomija znanja, Sirija, 2010.

⁷ Fred Kolter, Ekonomija znanja, Alžir, 2009.

⁸ Rehi Mustafa Alijan, Informaciona ekonomija, Aman, 2010.

⁹ Hasan Muzafar al Rezu, Osnove digitalne ekonomije i uvod u internet ekonomiju, 2007.

¹⁰ Džamal David Salman, Ekonomija znanja, Aman, 2009.

industries is the reliance on the human mind, whose productivity is not limited by time or place, and is subject to an integrated marketing system with rapid and competitive returns in foreign markets.

Achieving well-developed infrastructure is important because it improves others such as health conditions and advancement in education.¹¹ In the information age, access to global ICT infrastructure, especially through communications, is one of the components of national competitiveness in the world. The infrastructure investments that underpin digital development are generally realized by telecommunications operators. These may be domestic or telecommunications multinational companies. These are large-scale and long-term investments, as they include international connectivity (submarine and land cables, mainly optical due to long distances), national connectivity (in-country and operator connectivity), metro (in-city operator interconnection).

According to the World Summit on the Information Society (WSIS), the most important principles for establishing a sustainable information technology infrastructure are:¹²

1. National development policy supporting investment in ICT infrastructure for new services.
2. A national e-strategy that establishes appropriate policies for universal access and means of delivery, including indicators for linking to ICT.
3. Developing and strengthening the structure of broadband networks at national, regional and international levels.
4. Support for technical, regulatory and operational studies conducted by the International Telecommunications Union and conducted by other relevant organizations.
5. Mitigate the challenges posed by illiteracy by using simple non-textual technologies to access people's information and communication technologies.¹³

Development of information and communication technologies has led to dramatic changes in lifestyles in various spheres - both at the individual or family level, as well as at the level of society, economy and the environment.

Since the end of the twentieth century, information and communication technologies have been considered a key driver of productivity growth. However, in the mass of articles, strategies, books and brochures, there is not much concrete quantitative research on the impact of ICT on the economy. Most of the major research is conducted by the OECD and refers to OECD countries, that is, developed countries. Most of these studies have demonstrated a positive and economically significant relationship between the state and dynamics of ICT and economic growth. Although the effects of the application of ICT on development are experientially evident, scientific research measuring the effects of

the use of ICT on economic growth is very rare. Even rarer are studies that analyze these effects in less developed and developing countries

An extensive 2003 OECD survey, entitled OECD, ICT and Economic Growth - Evidence from OECD Countries, Industries and Firms, found that investing in ICT has contributed to the growth and productivity of work in all OECD countries. Still, the impact is not even close in uniform. In the United States, this impact is far greater than in any other OECD country. Only in certain countries, more specifically the US and Australia, has the survey found that sectors that have invested heavily in ICT have experienced faster productivity growth. This is especially true of wholesale and retail trade.

There is little research on the impact of ICT investment on the economic growth and development of underdeveloped and developing countries, and the existing empirical evidence is relatively weak and contradictory, mainly as a result of the lack of reliable ICT data for these countries.

Information and communication technologies also provide a unique platform for a large number of sustainable development services, such as e-commerce, cashless payment systems, electronic education applications, e-health, territorial and climate change monitoring services, and more broadly e-government. Information and communication technologies can help to achieve solutions to the challenges of sustainable development in the world. Their rapid development enhances the key role of technology in all parts of society.

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