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Creativity and Innovation in the Digital Economy in the Current Context

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Keywords: digital economy; e-Business; technological development ABSTRACT

In the following pages we have developed research of the Digital Economy, in which we discuss the advantages and the disadvantages its implementation brings in the work field, for both the employee and the employer. We also approach the emergence and development of this concept in Romania, and how the Coronavirus Pandemic influenced the companies' activity. Moreover, the research contains the main aspects to be pursued in the course of the companies' activity, stating the rights and duties of both the employee and the employer. We aim to find out why most companies have chosen to opt for digitalizing, what benefits come with its implementation and also the main disadvantages of working in a digital environment. The last part of the paper focuses on structuring the information and drawing specific conclusions, through highlighting the relevant matters of the approached subject.

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1. Introduction

The digital economy is considered to be the fourth industrial revolution, which is characterized by the ability to transform the economy, jobs, and societies as a whole, by introducing new technologies and processes. If we refer to the digitalization of public services, it determines a significantly more efficient administration, increasing the level of collection of fees and taxes, simplifying the interaction between the public administration and taxpayers. Integrating digital technology into the economic process will have a direct impact on competitiveness and productivity in the economy. Through digitalization of financial services, the digital space is becoming the epicentre of the activity such as: internet banking, self-banking and Fintech applications.

For a rapid advance of the digital economy, financial availability is necessary to be able to make investments in the implementation of digital technologies, as well as significant availability of human resources capable of using digital technologies in various sectors, and also capable of mediating the transition process to the digital economy.

2. Literature review

We know that the traditional economy is based on physical stores, on physical products and services, and on cash payments. But over time, as technological evolution advanced, traditional economies took over aspects of the digital economy, a concrete example would be the fact that companies purchase debit cards for online sales.

The digital economy has evolved a lot in the recent years and many companies have started to sell their products and services exclusively online, slowly giving up on physical stores. Along with the global pandemic, direct home deliveries have also developed, which are based on online orders.

The digital economy is closely related to the traditional economy, which makes a clear demarcation to be difficult. The digital economy is the result of billions of online connections between people, companies, devices, data and processes. It is based on the interconnection of people, organizations and machines. Without the Internet, the digital economy on which the global economy is based would not exist in its current form.

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3. Concept - Digital Economy

The digital economy is defined as an economy focused on digital and computing technologies. It includes business, economic, social activities, etc. which depend to a large extent on the web and other technologies belonging to digital communication.

The term "Digital Economy" was first mentioned in Japan by a Japanese professor and research economist during the Japanese recession of the 1990s.

In the West the term "Digital Economy" appeared in the book "Digital Economy: Promise and Peril in the Age of Networked Intelligence" written by Don Tapscott in 1995. (Tapscott, 1995)

The digital economy represents the economic activity that exclusively uses electronic communication and technologies to improve digital services. In other words, we are talking about an economy based on the online. When we say digital economy, we implicitly mean the Internet, therefore the digital automation.

Thomas Mesenbourg considers that the digital economy needs three basic components for its operation:

- A business infrastructure, i.e. everything that supports a business, namely technology, software, telecommunications and specialized human resources.
- An electronic business, a virtual company that has been developed through computer applications and online platforms.
- An e-commerce in which the business of buying and selling goods will be generated using the Internet as the main means of communication. (Mesenbourg, 2001)

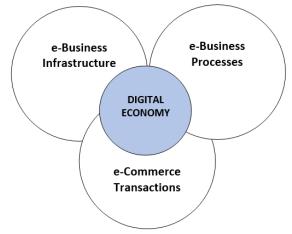


Figure 1. Digital economy - Measurement Framework

Source: own conceptualization

e-Business Infrastructure:

- hardware
- software
- telecommunications
- networks

e-Business processes influence as follows:

- 1. change the way companies operate
- 2. change business conduct
- 3. modify transaction costs, and improve efficiency
- 4. modify relations with clients and suppliers
- 5. change the structure of the industry
- 6. economic measures

e-Commerce transactions needs:

- focus on e-commerce (B2B)
- concluding an expertise contract necessary in the process
- measures to complete and improve
- adopting processes to facilitate reporting
- making a plan of measures and priorities

Most transactions in the digital economy take place in online. Cash transactions are becoming more and more infrequent. This helps to reduce corruption in the market and provides an increased degree of transparency of the economy. During demonetization, the government encouraged by sending an impulse for online transactions, and therefore promoting the digital economy.

At the European level, the data shows that the digital economy has a potential which is still insufficiently explored, taking into account the fact that 41% of the companies are not connected to the digital services and only 2% benefit from the advantages determined by digital opportunities.

Compared to other countries, Romania has great potential and can become a leader in the region in terms of the market share in achieving gross added value, so that the contribution of the digital economy can be comparable to or it can even exceed other countries such as Hungary, Great Britain, Bulgaria, or France.

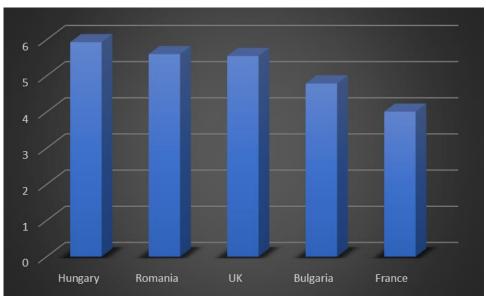


Figure 2. The contribution of the digital economy in GDP Source: own conceptualization - data from INSSE

In Figure 2 it can be seen that Hungary has a share of 5.93%, Romania 5.6%, UK 5.55%, Bulgaria 4.79%, and France 4.01%, which places the contribution of the Romanian digital economy at the top of the list.

3.1. The characteristics of the Digital Economy

The information should always be digital because it is done through the Internet, in just a few seconds, and the amount of information is not restricted in any way.

Traditional resources are being replaced with digital resources, thus it is becoming a problem for elderly people, but not for young people since they have access to digital knowledge from their first years of life.

The direct link can be created by connecting users, customers, suppliers, distributors, and traders. For example, the platforms that mediate sales, such as EMAG, although the purchase is made through the platform, the product is sent by the supplier; consequently, the platform is used only as a link between the customer and the supplier.

Due to the ever-increasing economic globalization, the companies are given the opportunity to have unfettered access to the market, and so they can evolve and expand in the future.

The products face a faster degree of development, which is not only due to the competition in the market, but also to the space that exists and can be used to create and develop them using new technologies.

4. The benefits of the Digital economy

- Access to more extensive and better information, detailed information about products and services, the possibility to compare the products prices, everything being a click away.
- Considerable increase in business dynamism. Expanding the sales market for products and services, which implies competition, prices and increasing the quality of the necessary products and services;
- Time saving, because by ordering online you have everything at your door in a short time, being more convenient and faster and saving time for other activities.
- Costs are reduced, because storage or sales spaces are no longer needed, because everything is online, for it is a huge gain because they can send the products by courier directly from the

- production line without storing them or sending them to retail stores, which means a decrease in the costs of rent, transport and even employee salaries.
- It offers the possibility of working from home. During the Coronavirus Pandemic, Digital Economy was an asset, which simplified some of the economic problems. The digital economy is flexible, it offers safe and quality services, a certain fact and very important for the times in which we live.

According to the report "Digital Vortex: How Digital Disruption is Redefining Industries", made by the Global Centre for Digital Business Transformation - DBT Centre, the digital revolution can determine at a rapid pace, the replacement of traditional business models and the remodelling of industries. The industries analyzed in the report were: Technology, Media & Entertainment, Retail, Financial Services, Telecommunications, Education, Tourism, Manufacturing, Health, Utilities, Oil and Gas, Pharma.

Most of the managers questioned in the report are of the opinion that the digital transformation positively influences business and society. A percentage of 75% of the people surveyed believe that the digital revolution represents progress, while 72% believe that it brings more added value to consumers, and 66% believe that it leads to an increase in individual responsibility. A percentage of 43% of the surveyed managers are not aware of the risks determined by the digital revolution, while only 25% are those who proactively invest in technology.

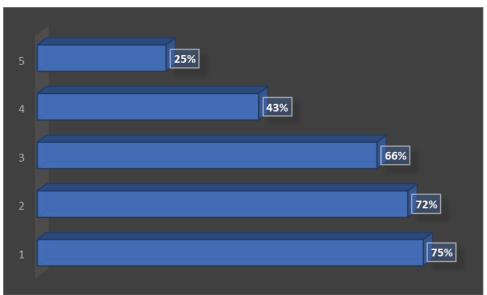


Figure 3. Percentage representation of questionnaire answers

Source: Global Center for Digital Business Transformation

4.1. The disadvantages of the Digital economy

- 1. Emergence of monopoly many main aspects of the digital economy have been dominated by monopoly firms.
- 2. Security problems, due to the fact that more and more information about users is collected and used by third parties for various operations, such as advertising and political purposes.
- 3. The labour legislation is no longer respected. Companies have lower costs because they collaborate with freelancers; they have greater flexibility; they can fire employees at any time.
- 4. Repercussions on the environment because the digital economy is not eco. Electricity leads to CO2 emissions. Plus, the digital economy encourages the launch of smart phones and computers; the production of such goods causing excessive pollution.
- 5. A disadvantage is represented by the increase in economic crime. The digital economy is at least a favorable environment, gathering evidence to punish criminals is difficult to achieve. Companies are frequently threatened by: industrial espionage, electronic attacks, etc.

5. The SWOT analysis

Through the SWOT analysis, we highlighted the main aspects that are the basis of the digital economy in a society in full process of technological development:

Strengths	Weaknesses
Time saving;Costs are reduced;Work from home;	Monopoly companies;Security problems;
Opportunities	Threats
 Decrease in the costs for companies; Safe and quality services; Social and economic factors; 	 Not all the companies have the ability to invest; Reduction of human staff in companies;

The first suggestion is the need for a plan of measures and proposals that combine the digital economy with technological development and with the contribution that human resources have to the activities within a company, the expected result is to provide added value to the engaged human resource and the digital resource both of them being necessary.

The second suggestion is to maintain a balance, so that companies that cannot afford such large-scale investments to have the opportunity to continue their activity in a harmonious way even if only 20% of the activity carried out is based on the online environment, respectively on the digital economy, and the majority of 80% is based on the traditional economy.

6. Conclusions

We can conclude that the digital economy impacts the companies in the market in an impressive way. It offers the opportunity of expansion in a way based on digitalization, thus offering safer and better quality services.

At the same time, the digital economy leaves its mark on human resources and on the number of jobs, due to the fact that digitalization implies investments in programming, in software aimed at simplifying manual activity, so that the human resource that carries out manual activities is replaced by the human resource that can use digital systems.

The more the dependence on technology increases, the more the dependence on human resources decreases. Therefore, a progressive development of the digital economy can cause the loss of a striking number of jobs. Processes become more automated, and the need for human resources is significantly reduced.

The evolution of the digital economy has a positive impact on free time, because we save quite a lot of time by ordering online and by the fact that it is no longer necessary to physically travel to purchase certain products.

On the other hand, evolution determines the appearance of new devices and software that can lead to an increasingly high degree of dependence that people have on technology and equipment.

The digital economy concretely needs a strong infrastructure, a functional internet, strong mobile networks and efficient telecommunications. All these requirements are expensive both in terms of time and investments.

As I highlighted above, the digital economy is based on computer technology. An increase in new businesses results in increased business connectivity around the world. This is now called "a new type of economy".

Postponing investments in the digital economy should be reconsidered. The old ways of carrying out the daily activity should be gradually stopped, and the companies should start the digitalization process. A plus would be the greater competitive advantage that the companies will have in our current society.

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References

- Alexandru S., (2021), Economia digitala. Avantaje si dezavantaje.
- Revoluția digitală și impactul asupra afacerilor, (2015),
- https://www.managerexpress.ro/idei-resurse/research-atentie/revolutia-digitala-si-impactul-asupra-afacerilor.html
- Impactul economiei digitale asupra proceselor economice și administrative, (2018), https://www2. deloitte.com/ro/ro/pages/strategy/articles/impactul-economiei-digitale-a supra-procese lor-economice-si-pages/strategy/articles/impactul-economiei-digitale-a supra-procese lor-economice-si-pages/strategy/articles/impactul-economiei-digitale-a supra-procese lor-economice-si-pages/strategy/articles/impactul-economiei-digitale-a supra-procese lor-economice-si-pages/strategy/articles/impactul-economiei-digitale-a supra-procese lor-economice-si-pages/strategy/articles/impactul-economice-si-pages/strategy/articleadministrative.html
- 5. Carlsson B., (2004), "Economia digitală: ce este nou și ce nu?"
- Ellis M., (2014), "Evoluția internetului și impactul său asupra spațiilor comerciale"
- Fondul Monetar Internațional, (2018), "Măsurarea economiei digitale"
- 8. digital-economy/
- Bell D., (1974), The Coming of Post-Industrial Society
- Mesenbourg TL, (2001), Măsurarea economiei digitale
 Castells M., (1996), The Rise of the Network Society
- 12. Digital economy, (2021), https://www.toppr.com/guides/business-environment/emerging-trends-in-business/digital-economy/
- 13. Economia digitala, (2015),
- 14. https://www.digitalcitizens.net/economia-digitala/