DIGITAL ERA –WORKING OPPORTUNITIES IN THE RESEARCH AND INNOVATION'S AREA

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Rezumat. Articolul cuprinde o introducere, cinci capitole și concluzii. În introducere am arătat că era informațională sau era digitală se bazează pe o „revoluție digitală" ceea ce înseamnă trecerea la o economie bazată pe transmisie, prelucrare și stocare de informație. Capitolul 1 Inovarea în România prin detectarea pe Internet a tendințelor pe alte piețe, Capitolul 2 Crearea unor bănci de date în România în domeniul produselor cosmetice în vederea inovării, Capitolul 3 Livrarea la distanță în România cu ajutorul dronelor create de universități șl licee și vândute magazinelor românești pentru impulsionarea vânzărilor, iar Capitolul 4 Colaborarea între universitățile cu facultăți economice și cele cu facultăți în domeniul ingineriei pentru crearea de roboți într-o fabrică proprie. Capitolul 5 Politica inovării. În concluzii am menționat că toate aceste oportunități pentru muncă vor conduce la progres în România, vor antrena și elevii și studenții la cercetare pentru dezvoltarea economiei și pentru obținerea de fonduri pentru unitățile de învățământ unde ei învață, dar și pentru ei, obișnuindu-i mai mult cu cercetarea și inovarea încă din școală.

Cuvinte cheie: bancă de date, cercetare pe internet, inovare, locuri de muncă, progres.

Abstract The article contains an introduction, five chapters and conclusions. In the introduction we pointed out that the informational era or the digital era are based on a "digital revolution" which means the transition to an economy based on the transmission, processing and storage of Information. Chapter 1 The innovation in Romania by detecting in the Internet the trends onother markets, Chapter 2 Establishing databases in Romania in the area of the cosmetic products for the innovation, Chapter 3 Distance delivery in Romania with the help of drones created by universities and high schools and sold to Romanian stores to boost sales Chapter 4 Cooperation between universities with economics and engineering faculties to create robots in a factory owned by them and Chapter 5 Innovation Policy. In the conclusions we mentioned that all these work opportunities will lead to progress in Romania, will bring high school and university students to research for the development of the economy and for obtaining funds for the educational units where they are studying, but also for them, getting them more used with the research and the innovation since school.

Keywords: data bank, electronic research, innovation, jobs, progress.

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Introduction

The informational era or the digital era are based on a "digital revolution" which means the transition to an economy based on the transmission, processing and storage of information.

According to the Collins Dictionary "The digital era (or information era) is a time when large amounts of information are widely available to many people, mostly through computer technology"

The main eight technologies of digitization are: artificial intelligence (AI), augmented reality (AR), blockchain technology, drones, Internet of Things (IoT), robotics, virtual reality (VR), 3D printing. The usefulness and efficiency of digitization is especially in the economic and commercial sectors. In the digital era, consumer behaviour has changed. Clients no longer buy only from online stores, but also from mobile devices and to this end they use the "voice assistant" or through social networks such as Instagram, Facebook or Snapchat.

The European Commission adopted the European Digital Single Market Strategy in 2015, which aims to strengthen the EU's position as a world leader in the digital economy. The Commission pursues the development of new and innovative services, and in 2016 the Commission clarified the rules and policy recommendations on the European agenda for the collaborative economy for citizens, companies and Member States.

Chapter 1- The innovation in Romania by detecting in the Internet the trends on other markets.

As in the current era, in order to survive, Romanian companies have to sell not only on the domestic market, but also on the foreign market, they should have a COMPUTERIZED RESEARCH-INNOVATION department where employees can research trends on other markets in the economic, commercial fields, tourism, to create products and services adapted to these needs according to the markets to which they want to export: French-speaking, Portuguese-speaking, Spanish-speaking, English-speaking. The position could be called computerized researcher-innovator (CII), and the basis of the report made by the CII could move to the creation of an internal production and a production aimed at one or more external markets, after an electronic marketing study which would allow us to know the quantity that could be sold in 5

months, the name of the store or the network of stores and the price depending on the purchasing power of the respective country or countries and the competition.

Thus, jobs could be created in every small, medium and large Romanian enterprise in the new computerized research-development department and it could then move on to the creation of products or services adapted to the new needs, eliminating the competition and initially practicing lower prices small to become known in new markets, and later when our products and services are known, we will increase the price and try to conquer new markets. Computerized research could be done starting from keywords in the economic, commercial and tourism field that the computerized researcher should know and the economic, commercial, touristic field in French, Spanish, Portuguese, English or use in this sense „Dictionary of financial and human resources management French-Romanian-Portuguese-English-Spanish", published in 2012 by the Milena Press Publishing House and which is the result of a research contract in the Romanian-American University, the University of Porto (Portugal), the University of Alicante (Spain), contract director being Constantinescu Ileana, the dictionary appearing at Milena Press.

Starting from these key terms, from lexical similarities, between his language and that in which he is documenting from the connectors, the computerized researcher could document himself on the Internet from various published articles to see trends in other markets and subsequently create products or services adapted to these trends.

Chapter 2 Establishing databases in Romania in the area of the cosmetic products for the innovation

Farmec factory in Cluj-Napoca could, for example, have a computerized research-innovation department where computerized researchers could search French, English, Spanish, American databases on perfumes, creams, powders, lipsticks and colognes. Then starting from the existing data banks, new substances could be added to create new perfumes, colognes, creams, powders and lipsticks. In this way, the creation process would be faster, and the risk of creating an existing brand again would not exist. Then Farmec factory, after creating the new products, could sell these data banks, which could also serve other Romanian cosmetics factories.

Chapter 3 Distance delivery in Romania with the help of drones created by universities and high schools and sold to Romanian stores to boost sales

In high schools, 11th grade students could learn to create a drone in the second semester in computer science classes, which the high school would then sell to a Romanian commercial store for remote delivery. The amount obtained could be kept half by the high school and the other half could be given to the students who worked on making the drone. And at the university, students could be assigned in their annual computer science seminar to create several drones to sell to stores for remote delivery. Half of the money could be kept by the university and half could be given to the students who worked on making the drones. In this way, research is stimulated, but it also contributes to the development and efficiency of Romanian trade.

Chapter 4 Cooperation between universities with economics and engineering faculties to create robots in a factory owned by them

This factory owned by several universities requires that some of the professors also work in the factory together with the students, that this productive enterprise be registered under a name at the Trade Register, that it has a headquarters, a legal form, and employees. At the same time, the robots created here should also have a brand, the brand being the sign used in commerce to identify products. The trademark provides a mandate for the innovation activity of the company. The trademark should be registered to be better protected. The brand should be, of course, a short term, in this case easy to pronounce and not causing confusion. This factory, which might belong to several universities, should also have a computerized research -innovation centre, and the created robots may implement the research results from this centre, but also the results of scientific research from higher education establishments from where, the professors and students working in this factory, are, with the consent of the rectors of the respective universities. The factory may also have an electronic bank of ideas, protected by an antivirus system.

Thus, a multitude of types of robots might be created in Romania for the interests of Romanian companies, households and for export.

Since these robots were invented in Romania, an invention patent should be obtained for each one, because will be thus possible to protect the ideas, the solutions, the novelties.

According to Romanian laws (art. 7, in law no. 64/1991) „an invention is patentable if it is new, results from an activity and is susceptible to industrial application. The object of the invention may be a product, a process or a method".

Thus, through those presented in chapter 4, higher education establishments with economic and engineering faculties can focus on research-development/invention without neglecting the exploitation and dissemination of the invention on the market.

Chapter 5 Innovation policy

In Romania, innovation policy must go beyond science and technology policy (S&T) and must include research and development policy, science policy, technology policy, regional policy and education policy. This innovation policy should be in the attention of the Romanian Government, universities, etc., so that it can be implemented and developed in the regions as well, so that Romania creates new products and services and sells them both on the internal market and on the external one based on rapid electronic marketing. Of course, collaboration between universities and a regional factory is much easier, for example. Putting the emphasis on research and production and on an education policy to this end, Romania may, in the digital era, create new enterprises and implicitly new jobs and subsequently conclude license agreements with foreign companies, for some of the products created, the license agreements can be exclusive or non-exclusive.

Conclusions

The information age opens up perspectives for new trades, for faster documentation and research leading to faster progress. It can also contribute to supporting trade at a distance even from educational institutions and thus can even lead to a partial self-financing of them in Romania by getting pupils and students more accustomed to research and innovation for the development of the economy and trade. The consumer of the digital era is of course, an informed consumer, is influenced, listens to recommendations but also makes recommendations, shares opinions and generates content and all this extremely quickly, so that new, quality and well-priced products/services can sell very quickly.

R E F E R E N C E S

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