

THE IMPACT OF DIGITALIZATION ON STARTUPS IN THE SOUTH-EAST REGION OF ROMANIA

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ABSTRACT

The crisis generated by the COVID-19 pandemic around the world, including in Romania, accelerated processes that had been started for a long time, but which were progressing slowly. The representatives of the business environment hope for an emphasis on the digitization of the fiscal administration, for a new perspective on business models. Romania's startups are lagging in adopting digital technologies, according to DESI 2020 report. The biggest gaps are in the digitalization of internal organizational processes. Businesses with the highest level of digitization and digitalization secure opportunities at twice the rate of the least digitized ones. We conducted a study to identify the implications of social platforms and digitization in the development of entrepreneurship among young people. The researched aspects were the motivations for using the Internet and social platforms, the impact of digitalization on collaborative platforms in Romania and the connection between the Romanian entrepreneurial ecosystem and digitalization.

KEYWORDS: *collaborative economy, digitalization, entrepreneurship, startups.*

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1. INTRODUCTION

The crisis generated by the COVID-19 pandemic around the world, including in Romania, accelerated processes that had been started for a long time, but which were progressing slowly, namely automation, digitization, or the implementation of remote work. In the current conditions where fiscal uncertainty and lack of transparency persist, the representatives of the business environment hope for an emphasis on the digitization of the fiscal administration, for a new perspective on business models. Experts estimate that by 2025, 80% of the interaction between a customer and a supplier should be done through digital channels. This will also change the sales strategy of the companies and the relationship with the stakeholders.

According to studies by Horvath & Partners (2021), it is shown that the main post-pandemic priority of company managers is digitization in all areas, marking the fact that Romania faces the same challenges as the rest of Europe. Thus, digitization, which was previously seen from the perspective of streamlining the activity, reducing costs, and increasing productivity, becomes the main priority. The strategy for a functional business is better integration with both employees and customers.

In this context, there is a need to accelerate digitization projects in all fields, a fact for which both large companies and startups can realize a realignment of the strategy and the business model (Zott & Amit, 2007). To make the process more efficient, it is necessary to optimize the company's portfolio of activities and keep those that are more resilient and less affected by the crisis.

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Startups that take digitization into account have the best chances of identifying new business opportunities. Businesses with the highest level of digitization secure opportunities at at least twice the rate of the least digitized businesses.

However, although many startups face significant barriers to adopting digital services, the chances are real that they will take advantage of new technologies. Despite the benefits of digitization, data from the DESI 2020 report shows that startups are lagging in adopting technologies. The biggest gaps are in the digitization of internal organizational processes, where practical, the most can be gained through efficiency.

2. LITERATURE REVIEW

Along with the advances in digital technology, several waves of digitization can be identified that have fundamentally transformed the business environment and society. In the face of current challenges, decision-making structures are increasingly defining digitization as a strategic priority and creating large-scale initiatives to stimulate the digital transformation of society (Morris, 2006).

There is a trend towards increasing public awareness and the launch of new funding schemes for research, innovation, and business models. Digitization also creates additional opportunities for entrepreneurs to engage in collaborations with various research structures (Neubert, 2018). Basically, with the presence of digital technologies, companies feel trapped in their traditional ways of working and approach universities more often for innovation projects. Young entrepreneurs who are digital natives expect researchers to provide an outside view of digital opportunities in various business areas and help them innovate and develop business models, digital products, and services.

Finally, technologies are becoming more user-friendly and accessible to researchers, and cloud services provide low-cost access to highly scalable IT infrastructures. Strong. As the barriers to entry to implementing innovative concepts through prototypes based on the latest technologies are falling, ideas and research results can be demonstrated more easily (Isaksson et al., 2016). This allows you to make research more tangible, test and collect feedback on research ideas, evaluate research prototypes with larger user communities, and bridge the gap between research, product development, and commercialization.

Digitization is a technological force that improves globalization both economically and in the approach to business (Legner et al., 2017). The effect of digitization on globalization can be seen in several areas, including electronic platforms and optimized product flows. Together, such changes allow entities to share information and knowledge more quickly, thus facilitating the growth of knowledge globally (Bouwman et al., 2018). For the area of startups, digitalization is imprinting both entrepreneurial education and the way of doing business, especially the transition from traditional to e-commerce platforms, access to resources and human resources policy (Wolcott & Lippitz, 2017).

In the context of the Covid -19 pandemic, digitization has changed the flows of skills and people. Practically, through remote work, startups can access suitable personnel from various regions, forming globally distributed teams. Thus, accessing platforms with global impact reduce transaction costs and barriers to financial investment, marketing and distribution of digital products and knowledge.

According to Fernando Alonso Ojeda (2021), the development process of innovative and digital technologies is accompanied by improved performance at the startup level but also by new challenges and threats. It is also found that the phenomenon technological upheaval has a direct effect on startups (Johnson et al., 2008). In recent years, the valuation and advancement of technological innovations had the fastest growing trend. In this context, startups must adapt their business model to IT applications.

3. RESEARCH METHODOLOGY

3.1 Qualitative research - semi-structured interview

As part of this research approach, we performed a qualitative analysis (<https://forms.gle/qDe4o8VsfYeSCnZr9>) in order to identify the implications of technological innovations, social platforms, and digitization in the development of entrepreneurship among young people. Thus, between September 5-22, 2022, we ran pilot research in which the tool used for data collection was the interview guide. The sample was established according to representativeness criteria and was made up of 5 interviewees, young entrepreneurs from the south-eastern area of Romania.

The researched aspects were the motivations for using the Internet and social platforms, the impact of digitalization on collaborative platforms in Romania and the connection between the Romanian entrepreneurial ecosystem, digitalization, and collaborative platforms. All research data and information are confidential and are kept as such without being published. This research complies with the legal provisions regarding the norms of ethics and deontology within the institutions of the national education system.

Defining the topic to be researched: Implications of technological innovation and digitization in the development of young entrepreneurship

Name known to the subjects: Entrepreneurship among young people

Subjects: Young entrepreneurs from the south-eastern region of Romania

Research hypotheses:

- Most of the young entrepreneurs in the analyzed sample use the Internet daily.
- A large part of the sample members prefers sharing economy business models due to recent technological advances.
- In general, the young people in the sample get involved in the entrepreneurial environment due to the high level of digitization of activities.
- A large part of the members of the analyzed sample participates in projects for the development of digital skills applied in entrepreneurship.

Research objectives

- Identifying the motivations for using the Internet and social platforms.
- Evaluation of the impact of technological and innovative advances on the development of the collaborative economy concept.
- Analyzing the implications of digitization in the conduct of business by young entrepreneurs.
- Establishing a strategy for developing a project aimed at developing digital skills in entrepreneurship.

3.2 Interview guide

Objective 1. Motivations for using the Internet – For what purpose do young entrepreneurs use it?

- How much time do you spend daily on the Internet?
- Which digital platforms do you access most often?
- Do you have a social media account? Which one?
- What do you think is the main advantage of using social media for a new business in the market?

Objective 2. Development of the collaborative economy – How has technological progress impacted the implementation of collaborative digital platforms in Romania?

- Do you use collaborative platforms like Uber or Airbnb? What other collaborative platforms do you use?
- What is the frequency of use of these platforms?
- Considering the growing number of smartphones, high-performance digital devices and access to numerous innovative elements, has technological progress influenced the development of collaborative platforms in Romania?

- Considering that access to the Internet is getting easier and information is transmitted quickly, what are the reasons why access to collaborative platforms is still weak in Romania?
- What would be the solutions by which people could be convinced to start using collaborative platforms in large numbers?

Objective 3. Implications of digitization in entrepreneurship - How do young entrepreneurs use the Internet in business development?

- What are your reasons for using digital marketing in your business?
- What are the business implications of using digital platforms?
- What would be the measures to make digital marketing a priority both for young entrepreneurs and for those who already have an existing business in the physical environment?

Objective 4. Developing entrepreneurial skills in the digital field - How can young people acquire skills both in the digital environment and in the field of entrepreneurship?

- What would be the solutions by which young entrepreneurs would be more motivated and stimulated to lay the foundations of a start-up in the digital field?
- Have you participated in any educational projects regarding the accumulation of knowledge about entrepreneurship? Where exactly did you attend?
- How have you developed your digital and entrepreneurial skills to date?

3.3 Content analysis

3.3.1 Horizontal analysis

Table 1. Horizontal analysis

The topic discussed	Subject 1	Subject 2	Subject 3	Subject 4	Subject 5	Horizontal analysis
1. Reasons for using the Internet						
Time spent daily on the Internet	1. Between one hour and three hours	1. Between one hour and three hours	1. Between one hour and three hours	2. More than three hours	2. More than three hours	1 = 3 times 2 = 2 times
Digital platforms accessed	1. E-commerce applications	1. E-commerce applications	1. E-commerce applications	1. E-commerce applications	1. E-commerce applications	1 = 5 times
	2. Educational applications and digital resources	3. Social media platforms	2. Educational applications and digital resources	3. Social media platforms	3. Social media platforms	2 = 2 times
	3. Social media platforms	5. Meeting applications	3. Social media platforms	4. Ridesharing applications	4. Ridesharing applications	3 = 5 times
	4. Ridesharing applications	6. Home-banking applications	6. Home-banking applications	5. Meeting applications	5. Meeting applications	4 = 3 times
				6. Home-banking applications		5 = 3 times
					6 = 3 times	
Social media account	Yes, on (1) Facebook, (2) Instagram and (3) LinkedIn	Yes, on (1) Facebook, (2) Instagram, (3) LinkedIn, (4) TikTok	Yes, on (1) Facebook, (2) Instagram, (3) LinkedIn	Yes, on (1) Facebook, (2), Instagram, (3) LinkedIn	Yes, on (1) Facebook, (2) Instagram, (3) LinkedIn, (4) TikTok	1 = 5 times 2 = 5 times 3 = 5 times 4 = 2 times
Advantages of using social networks	1. More effective business promotion	2. More effective targeting of the target audience	1. More effective business promotion	2. More effective targeting of the target audience	3. Prompt resolution of customer complaints	1 = 2 times 2 = 2 times 3 = once
2. Development of the collaborative economy						
Use of collaborative platforms	Yes, I use (1) Uber and (2) eBay	Yes, I use (3) Airbnb and (4) OLX	Yes, I use (2) eBay and (4) OLX	Yes, I use (1) Uber and (4) OLX	Yes, I use (1) Uber, (2) eBay, and (3) Airbnb	1 = 3 times 2 = 3 times 3 = 2 times 4 = 3 times
Frequency of use of collaborative platforms	1. A few times a year	2. Occasionally	2. Occasionally	3. A few times a month	3. A few times a month	1 = once 2 = 2 times 3 = 2 times

The influence of technological progress on the development of collaborative platforms	1. Yes, but to a small extent, it is now easier to identify collaborative platforms.	2. It does not have a visible impact, because collaborative platforms are not promoted.	2. No, because there is no involvement and no interest in popularizing the collaborative economy concept.	1. Yes, somewhat. There is a certain interest on the part of trendy young people with digitalization news.	1. Yes, with access to the Internet and innovative digital devices, it is easy to participate in the new economic concept.	1 = 3 times 2 = 2 times
The reason for poor access to collaborative platforms in Romania	1. Lack of public information 2. Reluctance of the population	3. Romanians show a strong desire to own an asset.	1. Lack of public information	1. Many still don't know about this type of platforms.	2. Reluctance of the population	1 = 3 times 2 = 2 times 3 = once
Motivating people to use collaborative platforms	1. Promoting the idea of sustainability and protecting the environment	2. Additional source of income	3. Professional services at much lower rates	4. Increasing the employment rate	1. Sustainability 2. Additional source of income	1 = 2 times 2 = 2 times 3 = once 4 = once
3. The implications of digitization in entrepreneurship						
Using digital marketing	1. Identification of new customers and loyalty of existing ones	2. Increase online sales	3. Creating online communities	4. Carrying out promotional campaigns at a professional level	1. Identification of new customers and loyalty of existing ones	1 = 2 times 2 = once 3 = once 4 = once
The business implications of using digital platforms	1. Faster business expansion at national, European, or international level	2. Optimizing the order taking procedure	3. More efficient business management	3. More efficient business management	2. Optimization of various activities within the company	1 = once 2 = 2 times 3 = 2 times
How digital marketing can become a priority for entrepreneurs	1. Free online courses 2. Online seminars of the "Open Day" type in renowned companies	3. Workshops addressed to entrepreneurs interested in digitization	4. Free testing of digital programs or platforms for a specified period of time to identify the benefits of use	3. Workshops addressed to all entrepreneurs	1. Free courses for entrepreneurs	1 = 2 times 2 = once 3 = 2 times 4 = once
4. Development of entrepreneurial skills in the digital field						
Stimulating young entrepreneurs to set up a start-up in the digital field	1. Organizing free workshops	3. Non-refundable or partially refundable funds	2. Favorable socio-economic environment, clear legislation, political stability	3. Non-refundable or partially refundable funds	4. Entrepreneurial education in universities	1 = once
	2. Development of a proactive entrepreneurship culture, stimulating financial framework	4. Entrepreneurial education in schools	5. Entrepreneurship within a continuing education system for adults	4. Entrepreneurial education in schools	5. Continuous training programs for young people	2 = 2 times
						3 = 2 times
						4 = 3 times
						5 = 2 times
Participation in educational projects regarding the accumulation of knowledge about entrepreneurship	1. No, I did not participate	2. Yes, I participated. "Innovative entrepreneurship in the Southeast Region - Antres 2.0"	2. Yes, I participated. "Innovative entrepreneurship in the Southeast Region - Antres 2.0"	1. No, I did not participate	2. Yes, I participated. "Innovative entrepreneurship in the Southeast Region - Antres 2.0"	1 = 2 times 2 = 3 times
Development of digital and entrepreneurial skills	1. Online courses	1. Online courses	1. Online courses	1. Online courses	1. Online courses	1 = 5 times
	2. Free workshops	2. Free workshops	5. Projects within the faculty	2. Free workshops	2. Free workshops	2 = 4 times
	3. Information from specialist groups	5. Projects within the faculty	4. Books and magazines	3. Information from specialist groups	5. Projects within the faculty	3 = 2 times
	4. Books and magazines					4 = 2 times
						5 = 2 times

Source: Authors' work

3.3.2 Vertical analysis

Subject 1 - age = 29 years old, background = urban, gender = male

He stated that he spends daily between one and three hours a day on the Internet, often accessing the applications of online shopping, educational platforms and digital resources, social media platforms and sometimes ridesharing applications. He also has an account on Facebook, Instagram, and LinkedIn, considering that the main advantage of using social media for a new business on the market is more effective promotion. In terms of using collaborative platforms, he accesses Uber and eBay a few times a year. It is of the opinion that technological progress has influenced the development of collaborative platforms in Romania to a small extent because access to the Internet does not imply immediate knowledge of collaborative economy platforms, it being necessary to promote the benefits obtained from their use and popularize the concept of economic sharing. From his point of view, people could be persuaded to use collaborative platforms by promoting the idea of sustainability and protecting the environment. He argues that the use of digital marketing at the business level helps to identify new customers and retain existing ones, and one of the implications of using digital platforms is the faster expansion of the business at a national, European, or international level. Digital marketing can become a priority for young entrepreneurs if free courses or online seminars such as "Open Days" are organized in reputable companies for interested entrepreneurs. The solutions by which young entrepreneurs can be motivated to lay the foundations of a start-up in the digital field could be realized by organizing free workshops or developing a proactive entrepreneurship culture. Subject 1 did not participate in educational projects on the accumulation of knowledge about entrepreneurship but developed his digital and entrepreneurial skills through online courses, free workshops, information from specialist groups and books or magazines.

Subject 2 - age = 30 years old, background = urban, gender = female

Subject 2 spends daily between one and three hours on the Internet, often accessing applications: online shopping, meeting, and home-banking, but also social media platforms. He has an account on Facebook, Instagram, LinkedIn and TikTok, considering that the main advantage of using social networks for a new business is more effective targeting of the target audience. He occasionally uses the Airbnb and OLX platforms, believing that the influence of technological progress on the development of collaborative platforms does not have a visible impact because promotion at the national level is low. He believes that the reason for the poor access to collaborative platforms in Romania is determined by the strong manifestation of Romanians' desire to own an asset.

By using digital marketing at the level of a business, online sales increase and the procedure for taking orders is optimized. An effective measure by which digital marketing can become a priority for entrepreneurs can be the organization of free workshops. Also, stimulating young entrepreneurs to set up a start-up in the digital field is possible through non-reimbursable or partially reimbursable funds and entrepreneurial education in schools. Subject 2 participated in the educational projects regarding the accumulation of knowledge about entrepreneurship "Innovative entrepreneurship in the Southeast Region - Antres 2.0". He also developed his digital and entrepreneurial skills through online courses, free workshops, or projects within the faculty.

Subject 3 - age = 28 years old, background = urban, gender = male

They use the Internet approximately between one and three hours a day, and the most frequently accessed platforms are: e-commerce, home-banking and educational applications, as well as social media platforms. He has an account on Facebook, Instagram, and LinkedIn, he believes that the main advantage of using social media networks is more effective business promotion. He occasionally uses collaborative platforms like eBay and OLX. Subject 3 is of the opinion that the influence of technological progress is not manifested on the development of collaborative platforms in Romania because there is no involvement from the state to popularize the concept of collaborative economy, nor interest from entrepreneurs. The reason for the poor access to collaborative platforms in Romania is the lack of public information.

Motivating people to use collaborative platforms would be possible by promoting professional services obtained at much lower rates. The use of digital marketing within a company has the benefits of creating online communities and managing activities more efficiently. Ways in which digital marketing can become a priority for entrepreneurs would be to test digital programs or platforms for free for a specified period to identify the benefits. Stimulating young entrepreneurs to set up a start-up in the digital field is possible by promoting a favorable socio-economic environment, clear legislation and political stability. He participated in the project "Innovative entrepreneurship in the Southeast Region - Antres 2.0",

Subject 4 - age = 32 years old, background = urban, gender = female

Uses the Internet more than three hours a day, and the digital platforms accessed are: e-commerce, ridesharing, meeting, and home-banking applications, but also social media platforms. He has an account on Facebook, Instagram and LinkedIn and believes that the advantage of using social media networks is more effective targeting of the target audience. Subject 4 uses the collaborative platforms Uber and OLX several times a month. He believes that the influence of technological progress on the development of collaborative platforms is weak, although there is some interest on the part of young tech enthusiasts who are on trend with digitalization news.

The reason for the poor use of the shared economy concept in Romania is determined by the small number of people who know collaborative platforms. People can be motivated to use collaborative platforms if the benefits of use are promoted, including increased employment.

The application of digital marketing within a company has the advantages of promoting the business at a professional level and managing the business more efficiently. An effective solution through which digital marketing can become a priority for entrepreneurs is the organization of workshops addressed to interested people.

Stimulating young entrepreneurs to set up a start-up in the digital field can be achieved by offering non-reimbursable or partially reimbursable funds and teaching entrepreneurial education in schools. Subject 4 did not participate in the educational projects regarding the accumulation of knowledge about entrepreneurship but developed his digital and entrepreneurial skills through online courses, free workshops, information from specialist groups.

Subject 5 - age = 35 years old, background = urban, gender = female

He spends more than three hours on the Internet every day, and the most frequently accessed platforms are the e-commerce ones, meeting, ridesharing applications, and social media platforms. He states that he has an account on Facebook, Instagram, LinkedIn and TikTok, believing that the main advantage of using social media networks within a company is the quick resolution of customer complaints. Use collaborative platforms like eBay, Uber, and Airbnb a few times a month. It also claims that the influence of technological progress on the development of collaborative platforms can be observed because by accessing the Internet and innovative digital devices it is very simple to participate in the new economic concept, only the reluctance of the population can determine the poor access to the platforms.

People can be encouraged to use collaborative platforms by promoting the idea of sustainability or explaining the idea that an additional source of income can be obtained. By using digital marketing within a company, it is possible to identify new customers and maintain the loyalty of existing ones, as well as to optimize various activities. Stimulating young entrepreneurs to set up a start-up in the digital field can be achieved by teaching entrepreneurial education in universities, continuous training programs for young people or organizing free online courses. Subject 5 participated in the project "Innovative entrepreneurship in the Southeast Region - Antres 2.0" and developed his digital and entrepreneurial skills through online courses, free workshops or projects within the faculty.

4. CONCLUSIONS

Five people were involved in this research: three women and two men, aged between 29 and 35 years. From the analysis carried out, we noticed that all the subjects involved in the interview use the Internet daily both for the creative and entertainment part and for business and economic activities. Also, the interviewees know the concept of sharing economy, and occasionally or even a few times a month use collaborative platforms such as: Airbnb, Uber, OLX or eBay.

The respondents specified from their point of view the reasons why Romanians do not access shared economy platforms. Thus, many people do not even know what the collaborative economy entails and often show reluctance towards the novelty or the desire to own a good that is too strong. There is another category, namely Romanians who do not know the concept of collaborative platforms but use applications such as Uber or Airbnb. Therefore, it would be impossible to promote the benefits of an innovative economic model without knowing the concept itself.

Synthesizing the information gathered, we identify the need for intensive promotion of the collaborative economy concept, information on how to practice and the benefits of using collaborative platforms so that the population accepts the concept as a new sustainable and profitable economic model. Romanians understand the importance of collaborative platforms if they discover that they can obtain an additional source of income, contribute to protecting the environment and creating a sustainable economic framework, but this awareness cannot be produced immediately and without involvement, but through national programs applied in the medium and long term.

Also, young entrepreneurs use the Internet to carry out professional promotion campaigns, to identify new customers and retain existing ones, increase sales in the digital environment and create online communities. The presence of digital marketing within a company is imperative because now competition is fierce, and entrepreneurs must be increasingly prepared for the business environment and know the implications of digitization.

Digital marketing and entrepreneurship can become priorities of young people if they realize the positive effects for a business: optimization and more efficient management of activities or expanding the business at national or even international level. Through free online courses and seminars, workshops, and the teaching of entrepreneurial education in schools, young people can acquire the necessary skills to develop a start-up in the digital field. Therefore, at the national level, there is a need for the development of a proactive culture of entrepreneurship, economic and political stability, non-reimbursable or partially reimbursable funds and measures that stimulate young people to get involved in business.

In the future, for greater accuracy of the results, we want to expand the research at the national level to study a representative sample to obtain an overview of the implications of technological innovation and the impact of digitalization on the development of entrepreneurship among young people.

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