

E-COMMERCE IN THE CONTEXT OF THE COVID-19 PANDEMIC

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Abstract: *In a competitive society, such as today's, in which information and communication technology, which is constantly evolving, plays a particularly important role in all aspects of modern society, large and small firms have noticed the potential that e-commerce has in increasing profits and reducing costs. The Covid-19 pandemic, the restrictions imposed, the social distance, have changed the habits and preferences of shoppers, who are more oriented than ever towards online shopping. This paper aims to present a number of aspects of the business-to-consumer sector, in which transactions take place between companies and private consumers.*

Key words: *e-commerce, Internet, B2C, smartphone.*

JEL Classification: *L81, L86.*

1. Introduction

The COVID-19 pandemic has accelerated the digital transformation and significantly increased e-commerce.

According to the Organization for Economic Co-operation and Development (OECD), e-commerce is the sale or purchase of goods or services, carried out via the Internet, by methods specially designed for the purpose of receiving or placing orders (OECD, 2022).

In a broader sense, e-commerce includes all business activities that use Internet technologies (Schneider, 2011).

Depending on the types of entities involved in transactions (or business processes), the following general categories of e-commerce are distinguished:

- business-to-consumer (B2C);
- business-to-business (B2B);
- business processes that support buying and selling activities;
- consumer-to-consumer (C2C);
- business-to-government (B2G).

This paper analyzes the business-to-consumer sector, in which transactions take place between companies and private consumers.

2. E-commerce in today's society

The number of Internet users is constantly growing, due to both the evolution of Web technology (from Web 1.0, in which Internet users could only read the information presented to them, to Web 4.0 which, based on wireless communications, connects people and objects in the physical or virtual world in real time (Benito-Osorio et al., 2013) and further to Web 5.0 in which technology and human interaction become inseparable) as well as mobile technology.

According to the “Digital Around the World” reports (DataReportal, 2020; DataReportal, 2021; DataReportal, 2022), in January 2022, 62.5% of the world's total population used the Internet compared to 59.5% of users in early 2021 and 59 % of users at the beginning of 2020.

The number of Internet users (as a percentage of individuals) at European level in the period 2020-2021 is presented in (Figure 1). The graph shows the situation of the countries in the 1-6th place in the ranking, the EU-27 European average and the situation of the countries in the last 10 places in the ranking, for which there were reported data.

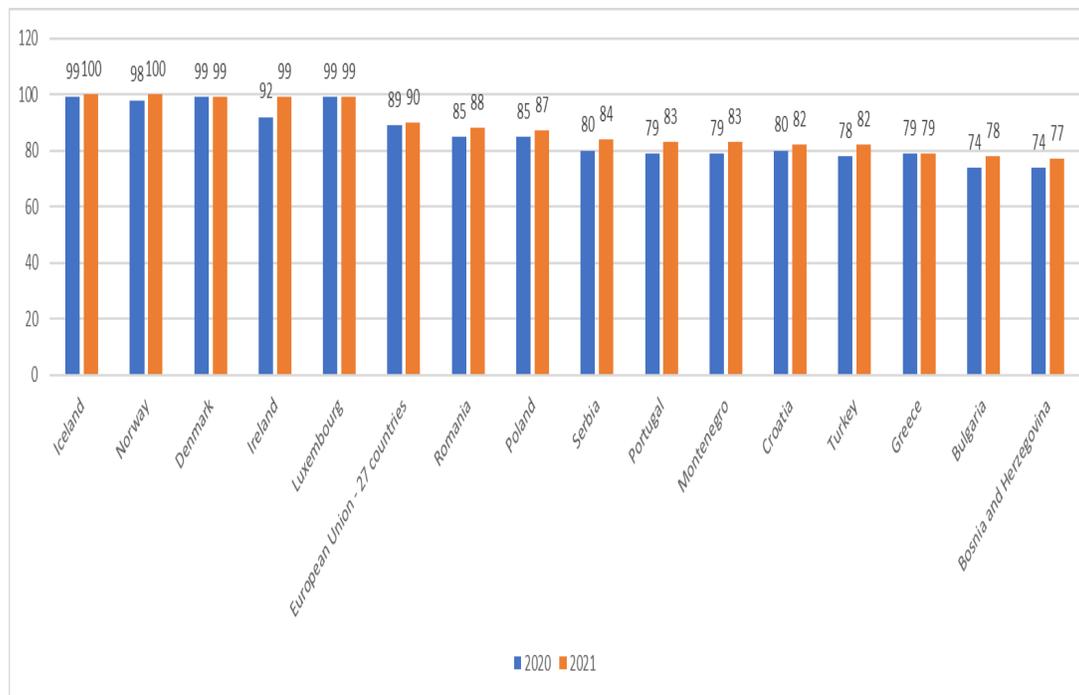


Figure 1. Number of Internet users (as a percentage of individuals) in the period 2020-2021

Source: Made by the authors based on data available at Eurostat, 2022b. *Individuals – internet use*. [online] Available at: <https://ec.europa.eu/eurostat/databrowser/view/isoc_ci_ifp_iu/default/table?lang=en> [Accessed 28 February 2022].

At European level, there is an increase in the number of users by 1% during the period presented, in Romania the increase being by 3%. Compared to 2019, in 2021 the number of users increased by 3% in the EU-27, in Romania the increase was 8% (Eurostat, 2022a).

If until a few years ago the Internet was accessed mainly from the desktop or laptop, by increasing the sales of smartphones, the transition to the Internet was made on mobile devices.

Of the world's Internet users at the beginning of 2022, 92.1% used mobile devices to connect to the Internet for at least part of the time, 0.1% more than in 2020 (DataReportal, 2020; DataReportal, 2022).

In Romania, in 2021, 14.36 million people used the Internet from a mobile device, 1.3 million more compared to 2020 and 2 million more compared to 2019, this number will reach 2026, according to forecasts, to 16.19 million people (Statista, 2022a).

The Covid-19 pandemic, the restrictions imposed, the social distance, have changed the habits and preferences of consumers, who are more oriented than ever to online shopping.

In this context, companies have had to readjust their strategies, invest more in technology and digital, continue to migrate to online, reinvent the way they reach customers, model their services and goods according to consumer needs. Thus, it becomes a necessity for companies to have an e-commerce platform that offers easy and safe navigation to customers, that adapts to mobile devices and that is easy to maintain and monitor.

The number of Internet users belonging to the countries shown in (Figure 1) who made online purchases in the period 2020-2021 is shown in (Figure 2).

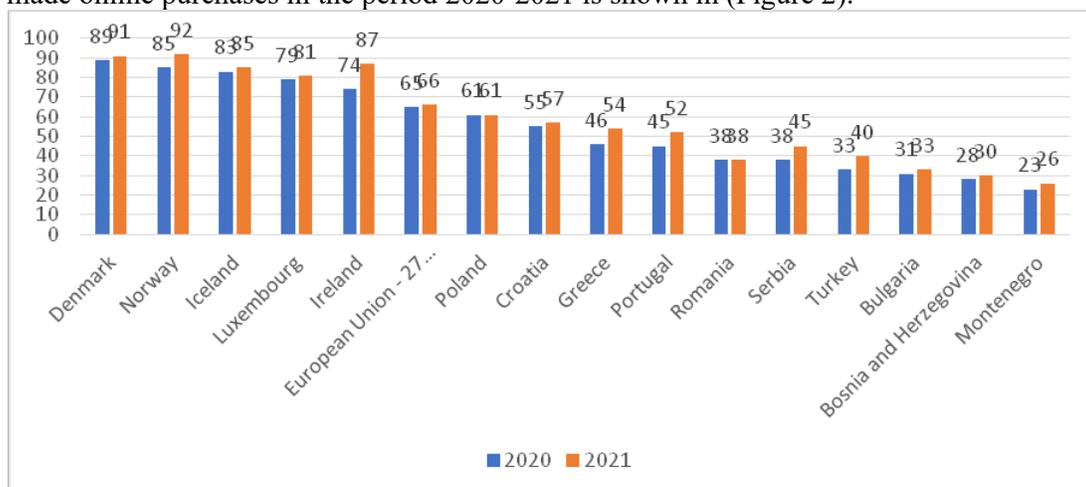


Figure 2. Internet purchases made by individuals (as a percentage of individuals) in the period 2020-2021

Source: Made by the authors based on data available at Eurostat, 2022c. *Internet purchases by individuals (2020 onwards)* [online] Available at: <https://ec.europa.eu/eurostat/databrowser/view/isoc_ec_ib20/default/table?lang=en> [Accessed 28 February 2022].

At EU-27 level, the increase in the number of Internet users who made online purchases during the period under review was 1%. Ireland recorded the highest increase in the period under review, of 13%, while in Romania and Poland the values remained unchanged.

Compared to 2019, the increase in 2021 at EU-27 level was 17%, in Romania the increase was 23% (Eurostat, 2022a).

In (Figure 3) is presented the evolution of sales made through e-commerce worldwide in the period 2014-2021 and a forecast of sales made through e-commerce for the period 2022-2025.

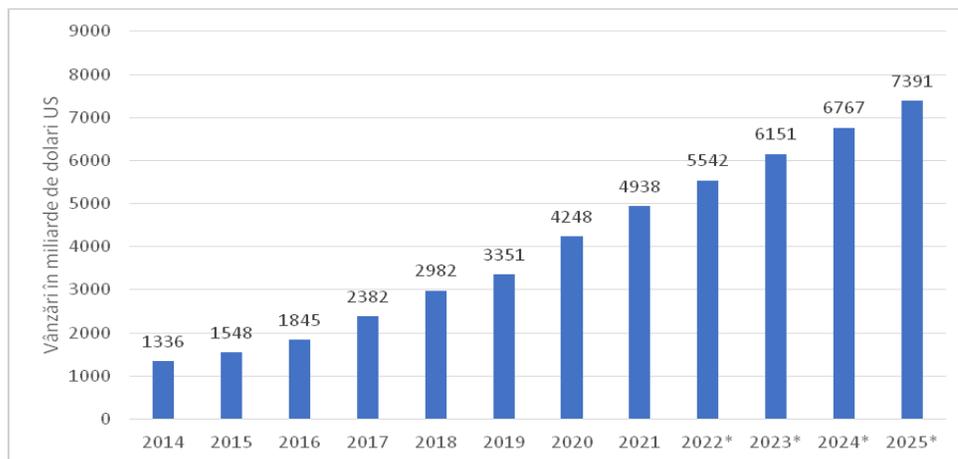


Figure 3. Worldwide e-commerce retail sales (2014-2025) (in billions of US dollars)

Source: Statista, 2022b. *Retail e-commerce sales worldwide from 2014 to 2025*. [online] Available at: <<https://www.statista.com/statistics/379046/worldwide-retail-e-commerce-sales/#statisticContainer>> [Accessed 22 February 2022].

The graph shows a 47% increase in e-commerce retail sales in 2021 compared to 2019. It is estimated that by 2025 the increase will be 121% compared to 2019.

In addition, the development of AR technologies (augmented reality, in which the simulated world is integrated into the real world by placing virtual objects in real world environments) and VR (virtual reality - in which the real world is replaced by the virtual world) is increasingly the online shopping process offers a number of advantages to both customers and merchants:

- ✓ personalization of the shopping experience for customers, these being much more interactive, more captivating
- ✓ reducing the number of returned products, customers being much more sure that the product according to their needs is the ordered product
- ✓ stores are brought to customers, in the sense that through the screen of a tablet or smartphone customers can "try" a product before buying it, which leads to an increase in sales.

Regarding the categories of goods purchased, according to the data provided by Eurostat, the category: "clothing (including sportswear), footwear and accessories" ranks first, followed by the category: "deliveries from restaurants, fast food chains, catering services" and the category "furniture, home accessories or gardening products".

On the first place in the top of the e-commerce stores preferred by Romanians is emag.ro with an increase of 19.3% in 2021 compared to 2020, followed by fashiondays.ro with an increase of 26.4%, altex.ro with a increase of 20.6% and dedeman.ro with an increase of 10.5% (EcommerceDB, 2022).

According to the report "European E-Commerce Report 2021" (E-commerce, 2021), in Romania, the percentage of the Gross Domestic Product generated by e-commerce in 2020 was 3.51%, compared to 2.78% in 2019 and 4.19% in 2022 (estimated at the time of the report).

Like any other business, e-commerce has a number of advantages and disadvantages for both the consumer and the seller.

Consumer benefits include:

- ✓ access to a much wider range of products and services, eliminating the geographical barrier
- ✓ the convenience of buying goods or services without going to the physical store
- ✓ the possibility to shop at any time
- ✓ the possibility to compare products, brands, having quick access to detailed information about them as well as to the reviews provided by real customers.
- ✓ Consumer fears about e-commerce are related to:
 - ✓ security issues, through which the personal information provided can be collected and used without the consent of their owner
 - ✓ data confidentiality (eg transactions made, sites visited, etc.)
 - ✓ the fact that the products cannot be tested, tried on, the lack of sensory analysis specific to different types of goods
 - ✓ low probability of returning certain types of items.

In (Figure 4) are presented the main reasons given by consumers not to shop online. The data, provided by Eurostat, represent the responses of people aged 16-74 in 2021.

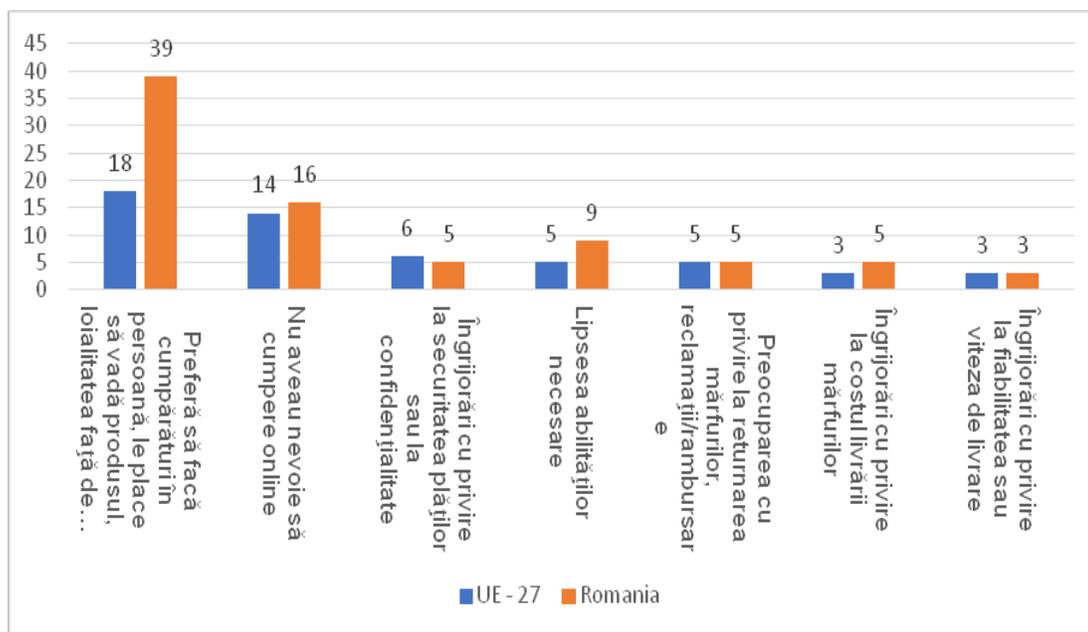


Figure 4. E-commerce - perceived barriers, 2021 (as a percentage of individuals)

Source: Made by the authors based on data available at

Eurostat, 2022d. *Internet purchases – perceived barriers (2021 onwards)* [online] Available at:

<https://ec.europa.eu/eurostat/databrowser/view/isoc_ec_inb21/default/table?lang=en>

[Accessed 28 February 2022].

At European level, it is observed that 18% of respondents prefer to shop in physical stores, in Romania the percentage is 21% higher. 9% of Romanian respondents considered the lack of necessary skills an impediment to online shopping, 4% more than the European average.

For companies, e-commerce brings a number of undeniable advantages, including:

- ✓ eliminating the costs associated with physical stores;
- ✓ elimination of geographical limitations;
- ✓ 24/7 operability which leads to an increase in sales volume;
- ✓ modeling goods and services according to the needs of buyers.

Although online sales are on the rise, there are a number of disadvantages for companies as well, such as:

- ✓ difficulty integrating existing databases and transaction processing software designed for traditional commerce into e-commerce software (Scneider, 2011);
- ✓ lack of customer interaction, especially in certain industries where the sales assistant-customer interaction is very important;
- ✓ issues related to the security of the e-commerce site, which could have financial and legal implications.

3. Conclusions

E-commerce has been on the rise in recent years, accelerated by the Covid-19 pandemic, which has forced companies to re-evaluate their traditional business models to retain existing customers and attract new customers by digitizing services, adopting AR and VR technologies, in the conditions of changing the behavior of the consumers, of the diversification of the distribution channels.

The e-commerce market will continue to grow in the coming years, representing a flexible solution for both buyers and merchants, the latter having to adopt an omnichannel strategy to improve the customer experience and thus achieve more big sales.

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