European Research Studies Journal
Volume XXV, Issue 2, 2022

pp. 236-246

Development of E-Commerce in Poland and the Baltic States

Submitted 03/04/22, 1st revision 23/04/22, 2nd revision 10/05/22, accepted 05/06/22

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Abstract:

Purpose: *The article analyses the development of the e-commerce market in Poland and the Baltic States. It presents the dimensions of its functioning - indicating the directions of development, and assesses the potential for further development of e-commerce.*
Design/Methodology/Approach: *The study was based on a literature list and an analysis of industry reports on the latest research in the development of the e-commerce sector to show trends and new solutions that are applicable in the countries studied. When making a decision to purchase a product, customers have to consider many criteria that are relevant to the transaction. In order to achieve the aim of the study, an international study was carried out between November 2021 and December 2021 in Poland and the Baltic States using an online questionnaire. This is an international comparative study conducted on a large group of respondents on a very important and timely topic.*
Findings: *An analysis of the e-commerce market in Poland and the Baltic States reveals that the highest percentage of its participants is in Estonia, followed by Poland and at a similar level in Lithuania and Latvia. E-commerce is subject to strong development, with the strongest growth forecast for the e-commerce market in Poland, which is confirmed by our own research. The effectiveness of e-commerce development in individual countries will be determined by individual approaches tailored to the shopping preferences of e-consumers in each country.*
Practical Implications: *The analysis scheme developed in the research can be a useful tool to assist entrepreneurs in designing their e-commerce business. Quick response to changes in consumer decisions helps to build competitive advantages.*
Originality/value: *The research presented here is part of a larger in-house study, the main aim of which is to explore the applicability of existing and the development of new methods for managing and implementing individual customer choices of the e-commerce marketplace into business.*

Keywords: *E-commerce, e-business, entrepreneurship, trade.*

JEL Classification: *L14, L81, L84, O32.*
Paper Type: *Research article.*

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1. Introduction

Progress in the area of new information and communication technologies, widespread access to the Internet and the increasing computerization of life have contributed to the strengthening of interest in capturing business in the formula of economic activities carried out using computer networks with universal access (Niedzielski, 2011). Embedding socio-economic activities in cyberspace began to gain strength, and the problem of restrictions related to the spread of coronavirus extremely strongly strengthened the development of the e-commerce market - flexible, secure - adapted to the times of the epidemic (Anacleto *et al.*, 2020; Bigné-Alcañiz 2008; Wieczorek, 2003).

The main objective of this article is to present the dimensions of e-commerce in Poland and the Baltic States, to show the current directions of its development and to assess the potential of online trading in the areas studied. The paper provides answers to a number of questions about the e-commerce market in Poland and the Baltic States, including the following ones:

a) in what directions is the e-commerce market developing in Poland and the Baltic States?
b) which of the analysed countries from the Baltic basin is developing the most rapidly in this area?
c) where is it worthwhile to invest capital in entrepreneurship oriented towards online business exchange?

2. The Idea of E-Commerce

Electronic Business (E-Business) came into being in 1995 with the introduction of IBM's ICT solutions, based on Internet application models (Kurnikova *et al.*, 2021). The networking of socio-economic activities has created the dimension of the network society (e-society), along with the system of expectations towards the opportunities offered by cyberspace, associated with the electronic economy, including the activities of e-enterprises and e-commerce. The space of the e-economy has begun to gain momentum and intensive development has been observed in a number of its dimensions, including e-government, e-banking, e-learning (Ołpiński, 2011; Glinkowska, 2011; He, 2021), among others.

The multifaceted dimension of socio-economic activities in cyberspace should therefore be associated with the activities of businesses and economic platforms, including e-commerce and electronic financial market, whose operation is enabled by electronic data exchange models, using ICT (Information and Communication Technologies) (Kraski, 2008) solutions, giving the opportunity to conclude transactions online.

E-commerce occupies an important position in the structure of the E-economy, focusing (Wieczorek, 2003), e-tailing, e-wholesale trade, e-merchandising, e-banking, electronic knowledge and skills development (e-learning).

It is a complex element of the e-economy structure, which, through the prism of business processes networking, contributes to strengthening the efficiency of business activities (Bober, 2011; Galina, 2022), stimulating for years the growth of interest in this dimension of business activity. Particular growth of interest in the e-commerce dimension was created by the outbreak of the coronavirus pandemic, associated with the search for available forms of doing business in the conditions of "lockdown" and sanitary restrictions. In the network began to spread such solutions, as :

a) e – shop’s – shops / websites,
b) e - mall's - groups of stores operated by different entities in the network,
c) e-procurement's - models of supply in the network,
d) e - auction's - auctions in the network,
e) e - platform's - cooperation platforms between entities in the network.

The networked economic exchange has proven to be the right answer to the current expectations of the modern market.

The year 2020, in the face of the global COVID-19 pandemic, is definitely a booming year for the e-commerce industry worldwide, and this development cannot be stopped anymore (Chmielarz, 2021; Milewska, 2022; Pantano, 2020). This period was, at the same time, the most difficult time for many industry sectors affecting both social and economic life. The situation in the market for most companies was very unpredictable, and the tightening and "lockdown" introduced a lot of uncertainty and problems that companies had to face. It was a time when sales platforms, their software and fee systems, as well as manufacturers and suppliers in the pandemic reality had to undergo an accelerated course of efficiency and creativity (Meng, 2015; Ramdansyah, 2017; Sobczak, 2018).

For many entrepreneurs, operating in an online reality had to become a reality in order to survive. Many are just breaking through watching what is happening and preparing to sell online. Undeniably, the winners were those who already had functioning online stores. Record transformation and the pace of change, improvements that often took less than half a year in normal conditions would take up to 3 years.

The e-commerce market has gained a lot of importance in a short period of time and the online space for selling products, functioning of companies, performing tasks by employees as well as retail customers has become a necessity (Chmielarz, 2020; Kaspar, 2019). Thus, the future of e-commerce market lies in its further development and new trends.

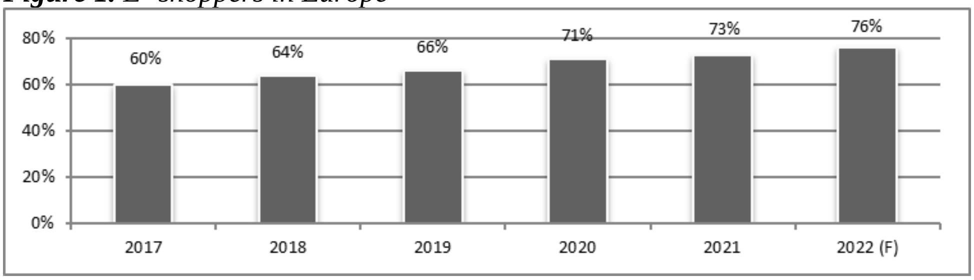
3. Research Methodology

The research was carried out using the CAWI (Computer Associated Web Interview) method based on the authors' own experience from previous research. The survey questionnaire, written in English, was developed to collect empirical data from Poland and the Baltic State. Particular attention was paid to the translation process to avoid any potential inconsistencies and inaccuracies regarding the research categories applied in the study. The WEBANKIETA tool was used to process the obtained results. The survey was conducted on a 1275-person random sample, representative for Poland and the Baltic States, aged over 18. The sample was quota and random and was selected from a territorial frame, i.e., it was stratified by respondents' country of residence. The stratification also took into account the gender and age of people selected.

4. Analysis of the E-Commerce Market in Poland and the Baltic States

The use of e-commerce is on the rise across Europe, as the number and share of e-shoppers increases year on year. The biggest jump in the number of e-shoppers was in 2020, due in part to the Covid-19 virus pandemic, which pushed consumers to shop online. All European Union countries saw growth in B2C e-commerce turnover.

Figure 1. *E- shoppers in Europe*



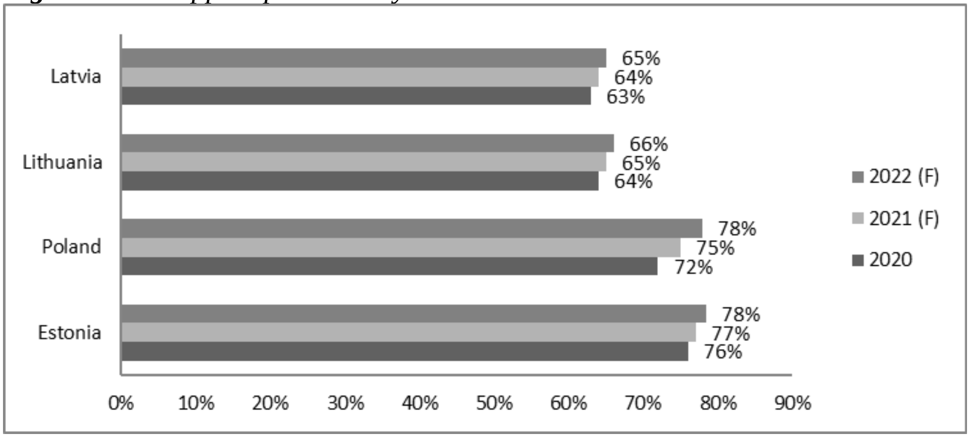
Source*: Own development based on Eurostat; https://ecommerce-europe.eu/wp-content/uploads/2021/09/2021-European-E-commerce-Report-LIGHT-VERSION.pdf.*

Trade growth rates in Europe are holding steady at double-digit levels and are expected to continue to grow for the foreseeable future. The shift of trade from offline to online has taken place gradually over a number of past years, with the outbreak of the coronavirus pandemic accelerating this process globally. Analysis of the European e-commerce market confirms the growing interest in online trading.

The number of active users of the European e-commerce market is gradually increasing and currently amounts to 71% of the European population. The average growth trend of the number of participants in the European e-commerce market oscillates around 2.55% (Figure 1).

The analysis of the e-commerce market in Poland and the Baltic States reveals that the highest percentage of its participants in 2020 describes the e-commerce market in Estonia (76%), followed by Poland (72%) and at a similar level in Lithuania (64%) and Latvia (63%). The analysed area is subject to strong development, with the strongest growth forecasts referring to the e-commerce market in Poland (Figure 2).

Figure 2. *E-shoppers per Country*



Source: *Own development based on Eurostat.*

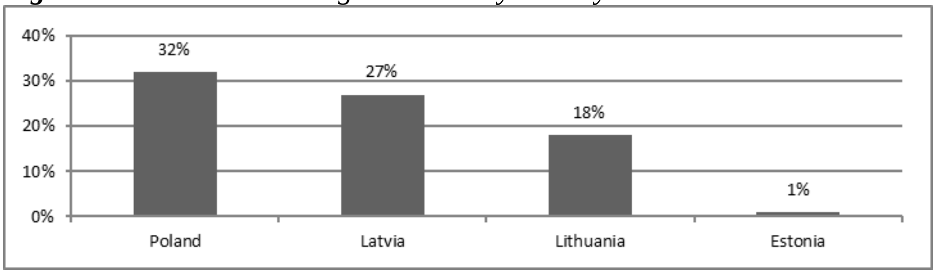
Online shopping in Estonia is extremely popular. Estonians buy everything online, and this is followed by a decrease in the average amount spent on online shopping. In 2017, the average online order in Estonia was 40 euros, while in 2019 it is only 33 euros.

About 27% of Lithuanians are more likely to buy online than in regular stores. The survey results show that this has become a habit for many people: as many as 44 per cent of interviewees said they last shopped online just a week ago. Lithuanians buy online more often than their Baltic neighbors. In this way, in the last week residents of Estonia bought 32% of all goods, and Latvians - 28%. This is a quarter less compared to the results of the survey of Lithuanian residents. Lithuanians are the most enthusiastic about online shopping, 56 percent expect to buy online more often than in physical stores by 2025. This is 20 percentage points more than Estonians and Latvians on average. Poles are more and more willing to buy online, valuing the convenience and flexibility of this form of economic exchange. However, there is a clear limitation of interest in making complex, high-value transactions online.

Estonians are the most developed in terms of e-commerce market compared to other countries. More than 40% of consumers in Estonia shop online at local e-commerce sites. E-commerce in Estonia is growing steadily. The volume of online purchases made with bank cards has increased by more than 50 percent, compared to the situation in 2017.

The group of online shoppers in Poland already accounts for 72 percent of all Internet users, an increase of 11 percentage points year-on-year. Poles appreciate the fact that products in online stores are available at any time, the time for thinking and choosing products or services is unlimited, and the buying process itself is simple and convenient.

Figure 3. *B2C E-commerce growth rate by country in 2020.*



Source: *Own development based on Eurostat.*

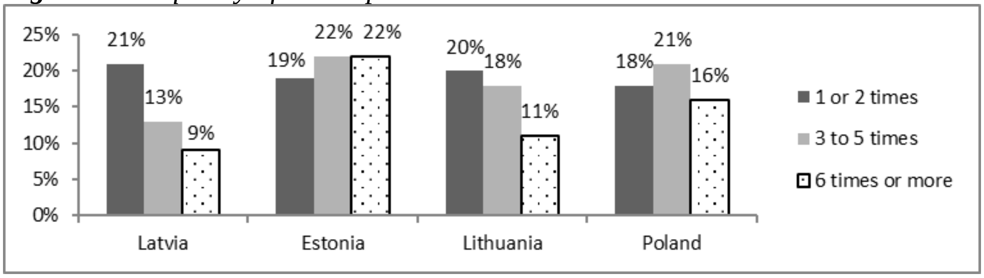
The development of the European e-commerce market was particularly strongly stimulated in 2020 by the growth of the B2C dimension of e-commerce, which involves the exchange of goods and services between a business and a retail consumer. The growth of the B2C dimension of e-commerce in Poland and the individual Baltic States assumed varying values during this period, with the highest level in Poland: 34%, and the lowest in the case of Estonia - only 1% - Figure 3. The analysis of industry reports indicates that the trend recorded in 2020 is very likely to be maintained in the coming period.

Estonia's e-commerce market is at a high level, as the country ranks high in terms of ease of doing business and is a top cybersecurity country. There are as many as 5,000 online stores in this small country with a population of just over 1 million. That's why there is such low growth in the e-commerce industry. The highest growth of e-commerce customers is in Poland and Latvia, where the market is developing very rapidly and mainly new online stores are being established.

E-clients show diversified online shopping activity. An analysis of shopping frequency per quarter shows that Estonians are the most active nation on the e-commerce market, followed by Poland. The weakest compared to the analyzed countries is the shopping activity of Latvians – Figure 4.

In Poland, most electronics, home appliances and clothing are sold online, and although the composition of these categories has not changed significantly over the years, it is expected that electronics sales on the Polish e-commerce market will continue to grow. In addition, e-consumers in Poland like to buy books, CDs and films, as well as cinema and theater tickets. Less interested in e-commerce in Poland is connected with buying cars and car parts, building and finishing materials, as well as articles for collectors.

Figure 4. *Frequency of online purchases in the last three months in 2020*



Source: *Own development based on Eurostat.*

The Lithuanian e-community buys clothes, household and personal items, food, and tickets for various events online. In Lithuania, there is a strong interest in new mobile services, which are applied in practice. This indicates a high absorption of the market in the area of e-commerce support solutions. E-commerce in Latvia is a receptive and active market. Providing Internet accessibility to 98% of the community in 2018, provided an excellent path towards increasing e-consumer activity online. Mobile e-commerce, which is an important driver of e-commerce development in Latvia, is of significant interest. The largest turnover of Latvian e-commerce is generated by the sale of electronics, as well as clothing, furniture, toys and food.

E-consumers in Estonia are oriented to take advantage of e-commerce facilities in the everyday socio-economic life. This means that the number of completed online transactions is increasing, while their value is decreasing, due to the implementation of basic money movement activities. Estonians are most likely to purchase clothing, sports equipment, or tickets for cultural or recreational events online. They strongly support local e-entrepreneurship in their consumer choices.

5. Results

Analysing the results of the authors' own research conducted in Poland, Lithuania, Latvia and Estonia, more than 56% of online users are women, who are willing to use novelties offered by the e-commerce industry. Men are less likely to use all novelties.

Users of online services are people living in cities, with medium and good financial situation. Respondents use the services of e-shops most often - 93%, followed by e-banking - 82% and arranging official business - 64%. The respondents most often indicated that they started with e-shopping and almost one hundred percent of the respondents (98%) rated this service very high. The participants of the study also indicated that at present they cannot imagine their life without the possibility of using e-shopping. For about 15% of the respondents, online shopping has become the main channel for purchasing various types of products, and similar conclusions are presented by other authors (Meng *et al.*, 2015).

Respondents mostly use smartphones, laptops and tablets to shop. The youngest entrants are most likely to use smartphones and smartwatches, while the group of oldest entrants largely use laptops and desktops.

The senior group accounted for about 27% of the total survey population. This is a group that is increasingly using e-commerce services and declares that they want to use this form of shopping even more in the future. During the pandemic, the group of seniors using online shopping grew the most and used particular services more dynamically. Before the Covid-19 pandemic, seniors mostly used e-banking and due to closed shops during lockdowns, they turned to e-shops and did their shopping there. This situation has led to a general interest in the e-commerce industry to continuously adapt its offerings to the 60 plus age group in order to maintain and develop long-term relationships with them. Young people who use the web for shopping purposes very often complain that online shops or other industries that use the internet have websites that are not adapted to mobile devices - this aspect was pointed out by 89% of respondents from the 18-26 age group.

Mobile devices are the primary device for young people to use online (Hubert, 2017), so more and more companies are trying to ensure that their offerings are presented appropriately and are not distorted when using mobile devices. Young people using mobile devices would like to use only websites that offer a configuration adapted to mobile devices.

Figure 5. *Using modern solutions when shopping*

	Women	Men
"buy" button	19%	23%
virtual fitting room	16%	6%
electronic shopping list	20%	12%
payment by phone	19%	22%
use of RFID	13%	16%
graphical search engines	15%	12%
hologram consultant	9%	4%
automatic - bot	10%	7%

Source: *Own elaboration based on research.*

The Increasing trade in the online channel means that technological innovations are following this trend. New solutions must respond to specific problems and, above all, work efficiently. More and more companies see the need to implement new technologies in various areas, and this forces the competition to act, because no one wants to be left behind (Foysal *et al.*, 2021). Customers are already willing to use the "buy" option, virtual fitting rooms, pay for purchases by phone-BLIK, use graphical search engines and chat with bots (Figure 5) authors analysed the factors that cause customers not to transact or abandon their shopping carts, among the largest group of indications were paid and expensive delivery. The next most common factors were high prices, lack of contactless payment and lack of contactless delivery options.

Figure 6. *Most common disadvantages of online shopping*

	Women	Men
high prices	18%	22%
no promotion	21%	19%
chargeable delivery	20%	16%
long delivery	16%	15%
out of stock	13%	9%
not as described	17%	16%
no contactless payments	18%	16%

Source: *Own elaboration based on research.*

Women most often pay with BLIK, traditional bank transfer or mail-order, which accounted for 60% of all women's indications. Men definitely choose traditional transfers, over 50% of men prefer this form.

Customers are more and more demanding, and in order to meet their requirements, gain a competitive advantage and gain the trust of potential customers, retailers must offer online shopping that is safe, convenient and fast. The implementation of 5G and modern technological solutions will take online commerce to an even higher level and revolutionary technologies will change the face of commerce and payments.

6. Conclusions

In 2021, new trends have started to take effect in e-commerce. For most e-shops, marketing automation and content personalization are the so-called "must-have". As many as 74% consumers want the online store they visit to adjust the form and channel of communication to their preferences. Therefore, the year 2022 is the time to deepen activities related to the improvement of personalized communication - the time for the so-called single customer profile. Another trend will be zero-click commerce, i.e., providing consumers with what they need before they order it. The service is to be based on the fact that companies track the shopping preferences of their customers and offer them products in advance by sending an e-mail or text message. Companies will expand loyalty programs because they can increase their sales through them. In the next few years, e-commerce will develop even more, and whoever defends against the digitalization of the offline store and the expansion of the e-commerce site will be left behind.

The e-commerce market in Poland and the Baltic States is developing very intensively. The leader in terms of growth is Poland, which is expected to catch up with Estonia in 2022. The direction of investing in e-commerce in Poland and the Baltic States is therefore the right one.

However, the effectiveness of e-commerce development in individual countries is determined by approaches tailored to the shopping preferences of e-consumers (Foysal *et al.,* 2021) from particular countries, which is worth paying special attention to.

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