

E-COMMERCE MARKET IN EUROPE IN B2C

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The paper presents the changes that have taken place in the E-commerce market in Europe. The European B2C e-commerce sales have been steadily growing since 2011. Still, the growth rate has decreased the last few years, from 18.4% in 2011 to 13.3% in 2015 and 12% in 2016. The value of market in 2016 was € 509.9 billion. In the category of B2C e-commerce sales, the UK was the clear leader in Europe. In 2015, the British in total spent €157.1bn online, which is more than France (€64.9bn), Germany (€59.7bn) and Russia (€20.5bn) combined. In addition, the share of the UK was more than twice as much as all the other countries outside the top 10 combined. It was found that E-commerce market developed faster than economy but was dependent from her.

Keywords: e-commerce, B2C, European market

1. Introduction

E-commerce is a part of e-business, which, on the other hand, is a part of e-economy. E-commerce is the process of purchasing, selling and exchange of products, services and information via computer networks [1, 2]. Thus, e-commerce activity includes sales over the Internet, on Internet auctions via Web pages other than stores and via electronic mail [3]. The development of e-commerce took place in the early 1990s as the Internet emerged. The potential of the new distribution channel was first used by mail order companies [4, 5]. At first, the network was used only to publish company and product information. Introduc-

tion of the appropriate legislation allowed for commercial activity in the network. The first Web store was Amazon.com bookstore, launched in 1995 [6, 7]. The increased pace of development of e-commerce was associated with shifting of financial and human resources to this field of activity. Enterprises, which were skeptical at first, were forced by the competition to invest in e-commerce [8]. After year 2005, e-business developed very quickly. This was aided by development of mobile applications and improvement of the electronic distribution and payment systems [9].

E-commerce encompasses transactions concluded via the network, based on IP protocol and via other computer networks, while final delivery of the product may take place outside the network [10]. Other definitions state that e-commerce includes EDI, cable and satellite TV, electronic cards, telephone communication, Intranet and Extranet networks [11]. As for entities participating in e-commerce, the following systems have been identified: business-to-business (B2B), business-to-consumer (B2C) business-to-public (B2P), consumer-to-consumer (C2C), consumer-to-business (C2B) [12].

In the electronic world the customer and the merchant do not meet face-to-face, and the clients are more discerning with increased options and solutions available to them online. As customers embrace e-commerce their expectations about service, support, and how they make purchases are changing. In the B2C commerce exchange, a recent process of disintermediation (using the web platform) has created entirely new “direct channel” opportunities [13].

Electronic commerce has redefined the distribution of all goods which are (or can be made to be) digital, such as software, music, documents, images, movies, and other information. Hard goods must still be delivered by traditional transportation methods, but with the introduction of the direct channel of communication between consumers and manufacturers, the innovative manufacturer can mass-customize the production process by reacting to the demand differences of individual buyers [14].

2. Research methodology

The main objective of the study was to assess the functioning and changes taking place on the market of e-commerce in Europe. The detailed objectives included: presentation of the meaning of e-commerce in economy, of the stages of changes on the e-commerce market, specification of changes on the e-commerce market, depicting of correlations between e-commerce and economic condition of the countries. Research encompassed the period of 2011-2016. The source material includes foreign and domestic literature on the subject, numerical data provided by Eurostat, Ecommerce Foundation and Worldbank, reports and studies on

e-commerce. The work was developed using the descriptive, tabular and graphic tools, as well as the correlation coefficient. In order to determine the relationship between the economic condition in the country and the e-commerce market, the correlation coefficient was applied. The indicators describing the economic condition of the country included value of GDP, GDP per capita, value of import and export and value of consumption expenditure of households. On the other hand, the parameters describing the condition of the e-commerce market included the market value.

3. The results

The full potential of the European e-commerce market has not yet been reached. In 2015 about 57% of European Internet users shop online, but only 16% of SMEs sold online. Also, only 16% of consumers shop online from another EU country. The number of jobs created directly and indirectly by the B2C e-commerce sector is estimated at nearly 2.5 million in Europe, a figure that will grow with the on-going increase and penetration of the Internet in the European society, and the projected growth of (B2C) e-commerce.

The average Internet penetration in Europe increased to 75.3% in 2015. For the countries in the European Union, this rate is slightly higher, as 81.5% of their residents was connected to the Internet last year. In the top 10 of European countries in terms of Internet penetration, it is interesting to see that all Scandinavian countries are represented (Tab. 1).

Table 1. Top 10 countries in terms of Internet penetration in 2015

Countries	Internet access* (%)	Online population (mln)
<i>Europe</i>	75.0	515.8
<i>EU28</i>	81.5	350.2
<i>Top 10</i>	94.7	153.9
Iceland	98.0	0.3
Luxembourg	98.0	0.5
Netherlands	98.0	13.6
Denmark	97.0	4.6
Norway	97.0	4.1
Finland	93.0	4.3
United Kingdom	93.0	49.8
Switzerland	92.0	6.4
Sweden	92.0	7.4
Germany	89.0	62.9

Sources: Eurostat, Ecommerce Foundation and Worldbank, 2016

*share of total population excluding people aged 0-14

While this top 10 mainly consists of countries from Western, Central and Northern Europe, the top 5 of the lowest Internet penetration solely comprises countries from the Eastern and Southern European regions (Tab. 2).

Table 2. Top 5 lowest Internet penetration countries in 2015

Countries	Internet access* (%)	Online population (mln)
<i>Top 5</i>	<i>60.4</i>	<i>103.0</i>
Turkey	54.0	31.3
Ukraine	58.0	21.9
Bulgaria	60.0	3.7
Romania	62.0	10.5
Italy	68.0	35.7

Sources: Eurostat, Ecommerce Foundation and Worldbank, 2016

*share of total population excluding people aged 0-14

The real growth rate of the European Union's Gross Domestic Product (GDP) was 2.6% in 2015 (Tab. 3). This represented a significant improvement compared to the preceding year, as the GDP was 1.8% in 2014. In terms of the share of e-commerce in GDP, the UK is clearly above the rest, with a share of 6.1%. It is interesting to see that the Northern European countries score quite well in terms of eGDP. Denmark (4.4%), Finland (3.5%), Norway (2.3%) and Sweden (2.2%) are all in the top 10.

Table 3. Top 10 countries in terms of eGDP in 2015

Countries	GDP at market prices (billions euro)	GDP per capita at market prices (euro)	Share of e-commerce in GDP (%)
<i>Europe</i>	<i>17,591</i>	<i>26,948</i>	<i>2.6</i>
<i>EU28</i>	<i>14,633</i>	<i>26,911</i>	<i>2.8</i>
<i>Top 10</i>	<i>7,414</i>	<i>41,070</i>	<i>3.1</i>
United Kingdom	2,568	39,400	6.1
Denmark	266	46,800	4.4
Finland	207	37,800	3.5
France	2,184	32,900	3.0
Ireland	215	46,200	2.8
Czechia	164	15,600	2.6
Netherlands	678	40,000	2.4
Norway	351	67,600	2.3
Austria	337	39,100	2.2
Sweden	444	45,300	2.2

Sources: Eurostat, Ecommerce Foundation and Worldbank, 2016

In 2016, retail e-commerce sales worldwide amounted to 1.86 trillion US dollars and e-retail revenues are projected to grow to 4.48 trillion US dollars in 2021.

The European B2C e-commerce sales have been growing steadily since 2011. Still, the growth rate has decreased the last few years, from 18.4% in 2011 to 13.3% in 2015. This trend was expected to continue in 2016 (growth 12%), resulting in a European B2C ecommerce turnover of €509.9bn (Fig. 1).

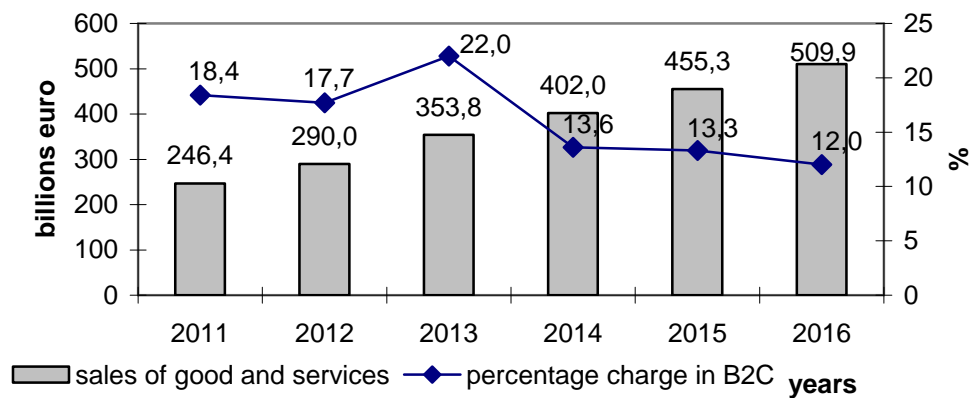


Figure 1. Total online sales of goods and services in Europe in 2011-2016
Sources: Eurostat, Ecommerce Foundation and Worldbank, 2016

In the category of B2C e-commerce sales, the UK was the clear leader in Europe. In 2015, the British in total spent €157.1bn online, which is more than France (€64.9bn), Germany (€59.7bn) and Russia (€20.5bn) combined (Fig. 2). The UK market had a share of more than one third of the entire European e-commerce market. In addition, the share of the UK was more than twice as much as all the other countries outside the top 10 combined. The share of the top 10 countries in the total European B2C ecommerce (€383.0bn) markets is almost 85%. However, within the top 10 the difference between the United Kingdom, France and Germany and the rest was also significant. Together, the UK, France and Germany account for 61.9%, while the other seven countries combine for 22.3%. The differences between the seven smaller markets in the top 10 were almost negligible. The share of number four Russia (4.5%) was only 2.6% larger than that of number ten Switzerland (1.9%).

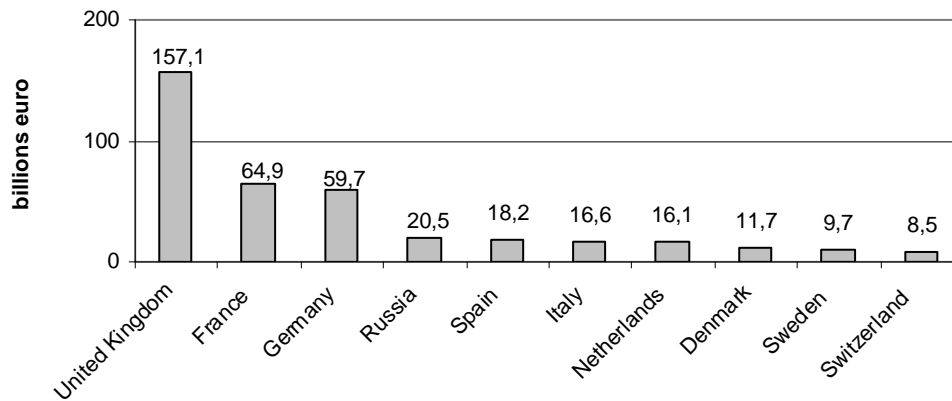


Figure 2. Top 10 countries in terms of B2C e-commerce sale
Sources: Eurostat, Ecommerce Foundation and Worldbank, 2016

Table 4 presents results of the Pearson correlation coefficient and p value. The limit value of significance level was assumed to be $p = 0.05$. Significant correlations were marked by grey background of the text. Correlation coefficients were calculated for years 2011-2016 and for 20 biggest national e-commerce market in Europe.

Table 4. Pearson correlation coefficients between the situation and changes in the IT market and selected parameters of the economy

Parametrs	Pearson correlation coefficients				
	The coefficients of correlation between the value of ecommerce market and				
	value of GDP	value of GDP per capita	value of consumption expenditure of households	value of export	value of import
correlation	0.778	0.101	0.810	0.623	0.700
p value	0.001	0.315	0.001	0.001	0.001

Very strong positive correlation values were found to exist between the condition of economy and value of the e-commerce market. Only in the case of GDP per capita in relation to the value e-commerce market, wasn't correlation. The relations were weaker for changes in exports than imports. E-commerce market developed faster but was dependent from economy.

4. Summary

The European B2C e-commerce sales have been steadily growing since 2011. The market of e-commerce in Europe is among the fastest developing markets – the dynamics of development in years 2011 – 2016 exceeded ten percent of growth annually. The value of market in 2016 was €509.9 billion. In the category of B2C e-commerce sales, the UK was the clear leader in Europe. In 2015, the British in total spent €157.1 bn. online, which is more than France (€64.9 bn), Germany (€59.7 bn) and Russia (€20.5 bn) combined. In addition, the share of the UK was more than twice as much as all the other countries outside the top 10 combined.

The number of jobs created directly and indirectly by the B2C e-commerce sector is estimated at nearly 2.5 million in Europe. The key factor in the development of the e-commerce market in relation B2C is Internet access. The average Internet penetration in Europe increased to 75.3% in 2015. For the countries in the European Union, this rate is slightly higher, as 81.5% of their residents was connected to the Internet last year.

It was found very high level of correlation between the e-commerce market value and the economy indicators in years 2011-2016. No correlation was found when comparing the e-commerce market value and GDP per capita.

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