

## PERCEIVED BARRIERS TO E-COMMERCE IN ROMANIA – A CONSUMERS PERSPECTIVE

**TOADER Liviu Andrei**

*Doctoral School of Economics and International Affairs, Bucharest University of Economic Studies, Bucharest, Romania  
liviutoader2005@yahoo.com*

**Abstract:** *The e-commerce has changed the way companies conduct business in Romania, leading to lower costs and greater expansion possibilities. The Romanian e-commerce market is constantly growing and exceeded 4.3 billion Euros in 2019. There are several types of e-commerce, according to the nature and dynamics of the transactional relationships, but this paper refers to the most common and relevant for the end consumer: the business to consumer (B2C) e-commerce activities. The purpose of this paper is to present the major barriers to B2C e-commerce adoption perceived by Romanian consumers, from social, behavioural, educational and economic perspectives. There is still a large gap between Romania and the other European Union countries regarding the adoption of e-commerce. Even though the Romanian e-commerce market registers a double-digit yearly increase, it has not yet reached its maturity level, as only 23% of the Romanians made at least one online purchase in 2019, compared to 63% of all the European Union citizens. The most significant barriers to e-commerce adoption in Romania are social and behavioural, followed by educational and financial. 43% of the Romanian population didn't shop online due to the need for human interaction when shopping, lack of trust or force of habit, compared to 23% of the Europeans. 7% of the Romanians consider themselves not skilled enough to shop online and 5% did not engage in e-commerce activities because they do not possess a payment card, although most of online shops accept cash on delivery as a payment method. Moreover, 80% of the Romanian buyers prefer it instead of card payment. From the managerial point of view, understanding the major perceived barriers the Romanian consumers face when purchasing online is an important endeavour of the e-commerce companies. Consequently, they can adjust the business models, promotional activities and advertising efforts to help consumers overcome their perceived barriers to e-commerce and therefore, expand their clients' base.*

**Keywords:** *e-commerce; electronic commerce; barriers to e-commerce; consumer-oriented e-commerce; online sales.*

**JEL Classification:** *M310; M210.*

### 1. Introduction

The strong expansion of electronic commerce is reshaping the way companies conduct their businesses, helping them to lower the costs and expand to new markets that would otherwise have not been accessible through conventional selling channels. Electronic commerce has been perceived as a new driver of economic

growth, especially for developing countries (Humphrey et al., 2004), generating unprecedented opportunities to innovate and create value.

The total value of the e-commerce market is constantly growing as the number of firms selling online is increasing, especially small and medium-sized enterprises. The global e-commerce market reached 29 trillion US Dollars in 2017 and is mainly dominated by business to business (B2B) transactions. Moreover, according to the World Economic Forum, it is expected that the share of online sales in the global commerce will increase from around 10% today to 40% in some sectors by 2027 (Leshner and Tscheke, 2019).

New digital technologies, like cloud computing, artificial intelligence, machine learning and autonomous delivery devices are transforming the e-commerce landscape by forcing companies to adapt and transform their online business models. Some traditional firms, like major retailers, are now going digital by making full use of e-commerce websites, mobile applications, digital customer loyalty programs, affiliate marketing and so on. On the other hand, some online retailers are now combining both digital and physical components by using a mix of online and off-line business models.

In Romania, the e-commerce market registered a constant growth in the recent years, mainly due to factors like the increase of the total number of mobile devices connected to the Internet accompanied by lower costs of mobile data connection plans, increase in wages, lower prices than in traditional trade, a wider variety of products to choose from and the convenience of online shopping. According to the GPeC 2019 Romanian E-Commerce Report (2020), the total value of the Romanian e-commerce market in 2019 exceeded 4.3 billion Euros, registering an increase of 20-22% compared to 2019.

Given the constantly growing importance of e-commerce in the Romanian and European marketplaces, this paper examines the major social, behavioural, educational and financial barriers perceived by the Romanian consumers regarding online shopping.

## **2. Definition and perspectives on e-commerce**

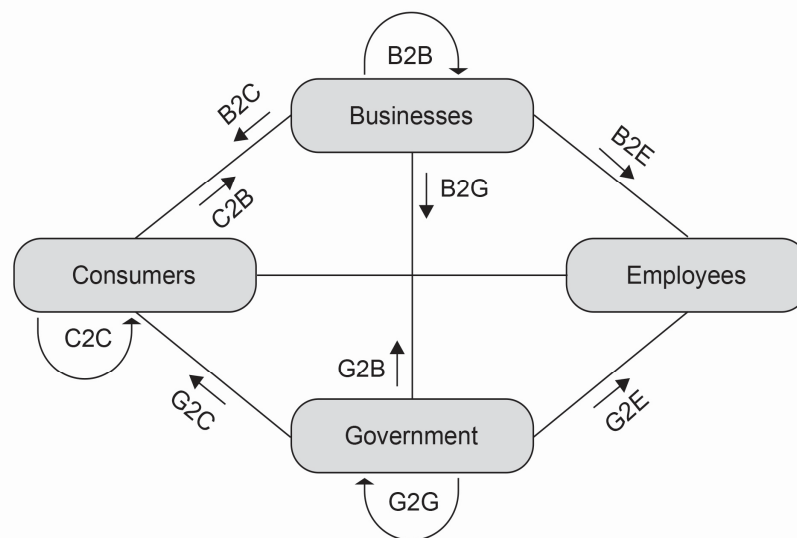
E-commerce involves the use of the Internet and mobile applications for digitally enabled commercial transactions between and among organizations and individuals. This does not include only online shopping, but also other types of business activities conducted on the Internet that involve the exchange of value in return for products or services (Laudon and Traver, 2017).

The Internet created new global digital markets, where prices are more transparent and the trading process is more efficient. According to Laudon and Traver (2017), there is a working distinction between the concepts of e-commerce and e-business, as each refers to a different business phenomenon. In contrast to e-commerce, e-business refers to the digital processes and informational transactions within a company, using the information infrastructure controlled and managed by that company, without any value-based exchanges to the outside environment. Although both e-commerce and e-business are using the same infrastructure to operate within a company, they serve different functions, the latter being mainly used as a

foundation to e-commerce, up to the point where an exchange of value occurs outside the organization.

There are several types of e-commerce categorized by the nature of the transactional relationship: who is the seller, who is the buyer and what is the dynamic of the value created by the transaction (as shown in Figure 1). The most important types of e-commerce transactions are:

- Business to consumer (B2C) - refers to transactions of goods, services and online content from companies to individual consumers. Authors like Laudon and Traver (2017) believe that B2C e-commerce started to grow exponentially from 2015 and will continue this trend in the next couple of years.
- Business to business (B2B) - describe the transactions taking place between and among companies. This is the largest form of e-commerce and still has significant growth potential (Laudon and Traver, 2017). According to Turban et al. (2018), 85% of the total worldwide e-commerce volume is now business to business.
- Consumer to consumer (C2C) acts as an intermediary, providing a way for the consumers to sell and buy products and services to and from each other, through web-based and mobile platforms.



**Figure 1:** Categories of transactions in e-commerce

Source: Turban et al. (2018), p. 11

This paper will analyse only the business to consumer (B2C) component of e-commerce. The mechanism of B2C e-commerce includes a wide range of elements that facilitate the interaction between the seller and the buyer, in all the stages of the transaction: a search engine or product catalogue to facilitate finding the

products or services, an online shop or platform with an electronic shopping cart, customer service, a payment processor and a method to physically or digitally deliver the products or services sold to the consumers. Advertising and promotions have an important role in e-commerce as a means to find and convince consumers to buy (Chaffey, 2009).

Social commerce is a form of e-commerce enabled by the social media that has grown in popularity over the years, allowing the social networks to integrate e-commerce tools like buy buttons, shopping tabs, virtual shops, social search and recommendations or sharing the approval or disapproval of third party products, services, and content (Laudon and Traver, 2017).

The development of smartphones and mobile data connections determined a wider scale adoption of mobile commerce, that involves the use of a smartphone or tablet to purchase products or services or access online content. Factors like the increasing amount of time that consumers spend using mobile devices, larger smartphone screen sizes and better e-commerce platforms optimization for mobile devices determine a substantial growth of mobile commerce (Laudon and Traver, 2017), offering new opportunities for online businesses to expand in the future.

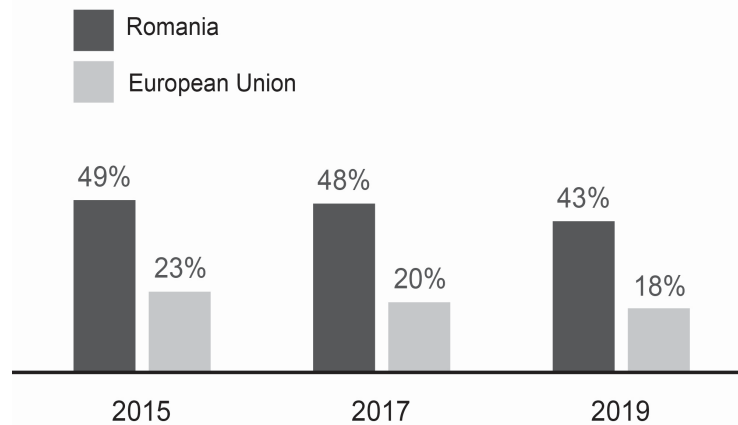
### **3. The consumers' perspective on barriers to e-commerce in Romania**

The e-commerce sector in Romania exceeded a threshold of 4.3 billion euros at the end of 2019. This figure represents only the tangible (physical) products that were bought online. Intangible products like services, plane tickets, hotel reservations, events, software or downloadable content, payment of utility bills and so on, are not included (GPeC, 2020). The Romanian e-commerce market increased by almost 22% in 2019 compared to the previous year. This double-digit growth rate shows that the Romanian e-commerce market has not yet reached its maturity level. According to a Eurostat study regarding Internet purchases by individuals (2020), only 23% of the Romanians made at least one online purchase in 2019, compared to 63% of all the European Union citizens.

The GPeC 2019 Romanian E-Commerce Report reveals that online shoppers visit, on average, 9 online stores per year, with a frequency of 3-4 times a week, while non-shoppers visit 5 online stores in 12 months, with a lower frequency of 1 time per week (GPeC, 2020). Therefore, online stores are visited often even by those who have not yet engaged in e-commerce transactions.

#### **3.1. Social and behavioural barriers**

For many people, shopping is perceived as a social activity, therefore the social interaction between the vendor and the customer is important. The limitation of personal social interactions is one of the major barriers to e-commerce adoption in Romania. According to Eurostat (2020), 43% of the Romanians haven't ordered goods or services over the internet in the last 12 months, because they prefer to shop in person, they like to see the product, loyalty to shops or force of habit, compared to only 18% of the EU citizens.



**Figure 2:** Individuals who, in the last 12 months, haven't ordered goods or services over the Internet, because they prefer to shop in person, they like to see the product, loyalty to shops or force of habit (% of all individuals).

Source: Eurostat, *Perceived Barriers to Buying/Ordering Over the Internet Database* (2020)

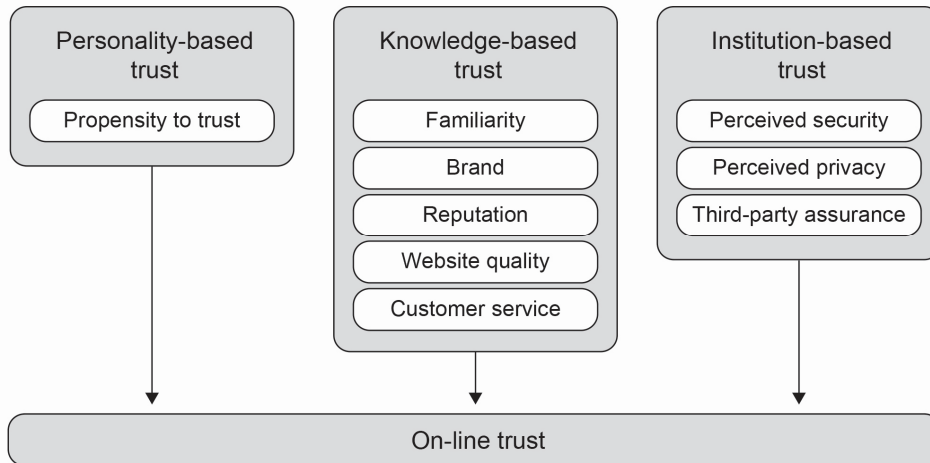
In 2015, almost half of the Romanian population didn't shop online due to the socio-cultural barriers like the need for human interaction, lack of trust, or force of habit, compared to 23% in the European Union. Two years later, in 2017, the figures have not changed much for the Romanian population. Only in 2019, the decreasing trend starts to be more noticeable.

The propensity for shopping in person and the desire to physically see the products before buying is represented by a lack of trust in the online vendors, in the payment systems, the delivery process, or all of the above. Trust is an essential component of the e-commerce environment. The geographical separation between the sellers and the buyers, along with no physical social interaction creates a barrier to wider e-commerce adoption. Moreover, the physical absence of the product that is being replaced with a virtual representation might affect the buyer's ability to fully visualize the product's features and characteristics.

According to Sanner (1997), there are three bases of trust: personality-based trust, knowledge-based trust and institution-based trust.

The first category, personality-based trust, is generally associated with the attributes of the person or to be trusted and it is highly influenced by cultural background and personality type. Some researchers believe that the propensity to trust is directly linked to trust in e-commerce (Chao-Jung, 2008). This is the case especially for new customers, who, in the absence of direct social interaction or previous experience with the vendor, have to rely on their socialized propensity to trust.

The second group of factors is related to the knowledge level of the other party, the seller, including familiarity with the online seller or product, brand, reputation, website quality and customer service.



**Figure 3:** Factors in online trust.  
Source: Chao-Jung (2008)

Familiarity with an online vendor reduces the uncertainty associated with the buying process through a good understanding of the functionalities, transactional flows and store policies. In many cases, in the absence of previous interactions, consumers do not trust an online store enough to engage in transactions that involve sharing personal information or making online payments (Hoffman et al., 1999).

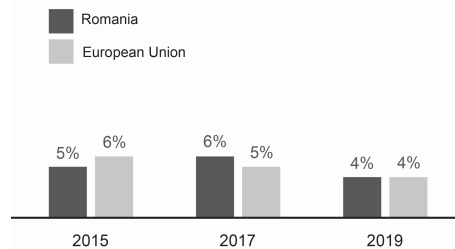
Kotler et al. (2005) consider the brand to be a name, a symbol or design, or a combination of both which allows identifying the goods and services corresponding to a seller and differentiate them from those of the competitors. In e-commerce, brands increase consumers' trust in the products they cannot physically interact with and the buying process in terms of electronic payment and delivery, therefore decreasing the perceived risk associated with the purchase.

Reputation is defined as "the extent to which consumers believe a store is honest and concerned about its consumers" (Chao-Jung, 2008, p. 166). In e-commerce, a good reputation of a vendor implies a lower risk in conducting business, therefore influencing the buyer's trust towards that vendor. When consumers did not previously have any interaction with the vendor, hearing positive experiences from other buyers can help change their perception of risk.

The quality of a website is analysed in terms of content, information structure, ease of navigation and functionality (Chao-Jung, 2008). Good design along with relevant, useful and engaging information makes a website's content more appealing to the consumers. Structure and navigation refer to how the information is organized on a website and the method used for navigation through different pages or sections. The functionality includes more technical aspects of a website, such as search algorithms, multi-platform responsiveness and generally the use of the latest technologies to increase the relevance for the intended audience. One of the major differences between traditional and electronic commerce is that the salesperson is

often replaced by search algorithms, help buttons, rankings and reviews. A well-designed website can minimize or even cancel the need for a human salesperson, therefore increasing the consumer trust associated with that website.

According to Wagenheim and Reurink (1991), customer service represents the process oriented towards achieving users' expectations by executing actions that users require or expect in the proper time frame. In e-commerce, good customer service via digital channels can build the same trust as a traditional sales interaction if the consumer's issues and questions are addressed in a professional, timely manner.



**Figure 4:** Individual who, in the last 12 months, haven't ordered goods or services over the Internet, because of trust concerns about receiving or returning goods, complaint/redress concerns (% of all individuals).

Source: Eurostat, *Perceived Barriers to Buying/Ordering Over the Internet Database* (2020)

Lack of knowledge-based trust regarding the online retailers in terms of concerns about receiving and returning goods and customer service represented in 2019 a barrier to e-commerce for almost 4% of both the Romanian and European Union population, according to the Eurostat (2020).

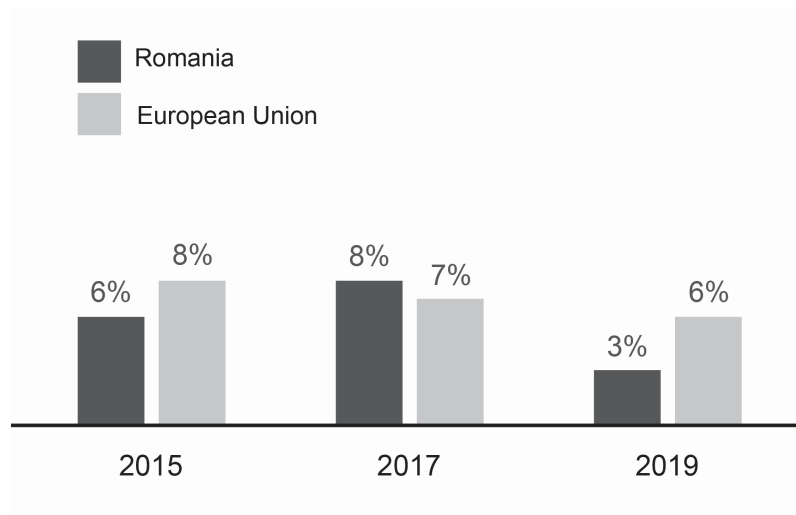
The institutional-based trust issues focus on consumer's beliefs about impersonal situations and favourable conditions that allow them to feel safe and comfortable during online transactions (McKnight et al., 1998). Many online trust-building strategies are based on using trustworthy third-party intermediary entities in assuring the buyers that the transaction is safe.

It is widely recognized that security is one of the major obstacles to the adoption of e-commerce (Furnell and Karweni, 1999). Perceived security in e-commerce is the consumers' perception of the degree of protection against cyber threats like the theft of credit card information or unauthorized access to personal data. Perception about the risk involved in an electronic transaction is inversely proportional to the consumers' trust in an online store.

In 2019 only 3% of the Romanians did not engage in e-commerce transactions because of payment security concerns, compared to 6% of the Europeans.

Privacy is an important concern in e-commerce and involves the protection of personal information disclosed by the consumer during a digital transaction. Therefore, perceived privacy is the extent to which the consumers believe their personal information is protected from malevolent threats and not disclosed to other

parties without their consent. Starting with May 2018, a new set of regulations in EU law on data protection and privacy were adopted, addressing the rules of collecting and transferring the personal data of the consumers within and outside the European Union (General Data Protection Regulation 2016/679).



**Figure 5:** Individual who, in the last 12 months, haven't bought/ordered goods or services over the Internet for their own private use, because of payment security concerns (% of all individuals).

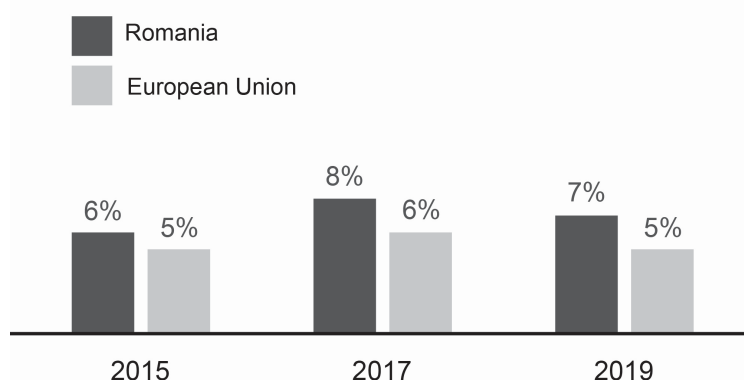
Source: Eurostat, *Perceived Barriers to Buying/Ordering Over the Internet Database* (2020)

Third-party assurance underlines the important role of certified intermediary mechanisms like secured payment processors or digital signature providers to create trust between the online vendors and the consumers. According to Chao-Jung (2008), the independent nature of third-party certification has been adopted by the e-commerce industry to help buyers feel more trusting when engaging in business transactions online by protecting their personal data and reducing the perceived risks.

### **3.2. Educational barriers**

The educational barriers to e-commerce adoption in Romania became less significant along with the widespread expansion of cheap, high-speed Internet connections and mobile computing devices. In 2019, even though 84% of the total households in Romania had access to the Internet in 2019, only 23% of the individuals made at least one online purchase in the last 12 months, compared to 63% of the European Union citizens, according to Eurostat (2020).





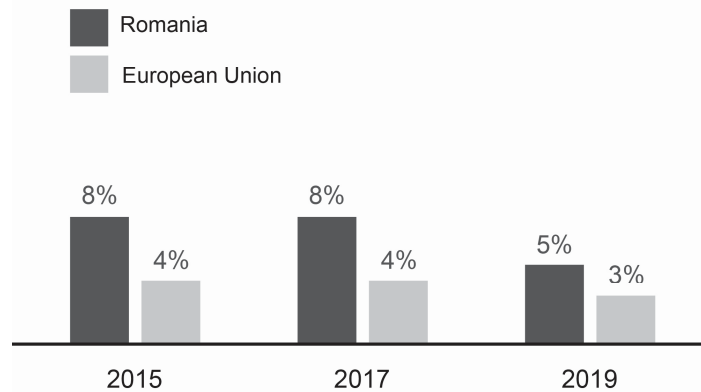
**Figure 6:** Individual who, in the last 12 months, haven't ordered goods or services over the Internet, because they lack the necessary skills (% of all individuals).  
Source: Eurostat, *Perceived Barriers to Buying/Ordering Over the Internet Database* (2020)

The lack of ICT (Information, communication, technology) skills represents another barrier in e-commerce adoption in Romania. A study on perceived barriers to buying over the Internet (Eurostat, 2020) shows that 7% of the Romanian individuals failed to engage in e-commerce transactions in the last 12 months due to a lack of necessary skills. In this case, digital skills refer to the user's ability to access the Internet, search for the relevant information, understand the functionalities of an online store and use digital communication tools like e-mail or instant messaging systems to connect with the store if necessary.

### 3.3. Financial barriers

At the end of 2019, the total number of active payment cards in Romania was around 14.26 million, representing almost 73.5% of the total population, according to the Payment Statistics provided by the National Bank of Romania (2020). Possessing a payment card is not a mandatory condition to shop-online as long as the majority of online stores accept cash on delivery as a payment method. Services and other intangible goods like downloadable software or digital subscriptions are only accessible via online payment.

The favourite payment method for Romanians in e-commerce is cash on delivery. PayU, one of the main payment processors, estimates that almost 20% of the online orders in Romania are paid via online payment, while the rest of 80% are paid cash on delivery (GPeC, 2019). Not possessing a payment card is considered a barrier to e-commerce for 5% of the Romanians who did not order any goods or services over the Internet in the last 12 months (Eurostat, 2020).



**Figure 7:** Individual who, in the last 12 months, haven't ordered goods or services over the Internet, because they don't have a payment card (% of all individuals).  
Source: Eurostat, *Perceived Barriers to Buying/Ordering Over the Internet Database* (2020)

#### 4. Conclusions

The most important barriers to e-commerce adoption in Romania are related to the consumers' trust, risk-aversion, education and access to electronic payment methods. From a managerial perspective, e-commerce companies need to understand the consumers' limitations and the perceived barriers to purchase to adapt their business models and help them overcome these barriers. For example, a flexible return policy along with a consumer review message board could enhance trust and substitute the need to physically see the products by shopping in person. Perceived risk regarding the online payment security can be reduced by utilizing a certified and secure third-party payment processor, thus assuring the customer that no unauthorized person will have access to any personal data or card number. Lack of ICT skills is yet another barrier to e-commerce adoption in Romania that can be addressed by using human or artificial intelligence customer service that will guide the buyer through each step of the buying process.

Romanian e-commerce market grew constantly over the last years, with an average rate of around 30% per year, in the last 3 years (GPeC, 2020). Considering that the number of people expressing concerns about engaging in e-commerce activities has been on a steady downward trend, it is expected that the Romanian e-commerce market will continue to grow in the following years and adapt to the latest international trends and technologies.

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