

# Trust and E-Commerce in the Ukraine and Poland in the Eyes of Young Urban Professionals

Jacek WOŹNIAK<sup>1</sup>

## **Abstract**

*The article seeks an explanation of the fact that an average Ukrainian's e-commerce expenses is almost three times as high as a Pole's, measured as a percentage of their wallet. Based on statistical data from both these countries and sector reports, it is showed that technical, legal and organizational conditions for e-commerce are slightly worse in the Ukraine then they are in Poland and other EU countries.*

*An e-questionnaire given to early adaptors of new technological trends - two groups of ca. 100 of young professionals from big cities in Poland and Ukraine, showed that the level of trust toward people met over the Internet is radically higher in the Ukraine than in Poland. The trust factor was taken to be one of the possible explanations for this phenomenon.*

**Keywords:** e-commerce, e-readiness, trust, e-business, barriers for e-commerce, Poland, Ukraine; ICT.

**JEL classification:** P51, O57, O52, M21, O33.

## **1. Introduction**

The development of information and communications technology (ICT) has produced changes in almost every area of social life. Distinct changes can also be observed in commerce, and the growing share of e-commerce in the commerce sector has further altered its functioning with each passing year.

I decided to write this text after having observed a curious inconsistency: one of the indicators of the relative penetration of B2C e-commerce in the Ukraine is several times greater than in EU countries, where the legal and technical infrastructure for its operation are better. In order to understand the causes of this phenomenon, we conducted opinion polls among young urban dwellers in the Ukraine and Poland. Their aim was to verify whether this inconsistency could be explained by the differences in social consciousness between the two countries, and specifically trust.

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<sup>1</sup> Jacek WOŹNIAK, University for Finance and Management in Warsaw, Poland,  
Email: jkwozniak@tlen.pl

The text is organized as follows: The first part contains the necessary definitions. The second part provides a review of selected technical and legal indicators of the readiness of each country's distribution market to adopt e-commerce. The third part describes the premises and methodology of the opinion polls conducted and the fourth presents the results. The fifth part discusses these results and their conclusions.

## **2. E-business, e-commerce, and their definitions<sup>2</sup>**

The term e-business came into general use when IBM introduced it in 1995 to signify 'the transformation of key business processes through the use of internet technologies'. Earlier it was used in a colloquial sense to mean taking advantage of ICT (then still referred to as IT) in conducting business. These technologies began to form part of business processes from the middle of the 20<sup>th</sup> century, but their importance grew significantly when large computers were replaced by personal computers, which were shortly united by the internet.

The beginnings of commerce with the aid of ICT date from the year 1984, when Tesco developed the possibility of purchasing products online by opening Gateshead SIS/Tesco as the first shop of a B2C nature. Earlier, in 1979, Michael Aldrich had demonstrated for the first time a system enabling online buying (Wikipedia.en). In practice, however, until the era of the personal computer and the internet, these solutions were technological innovations without significance for social life in general.

Formally speaking, e-commerce is a part of e-business, or more precisely, the commercial aspect of this kind of business (Nojszewski 2004). E-business is the implementation of key business processes with the support of ICT, or with a sufficiently large proportion of ICT in traditional business processes, for a qualitative change to take place. These convoluted formulations serve to avoid the difficulty of definition—communication is a part of ordinary business processes and in itself the inclusion of technologically mediated communication is not considered to change the nature of a business from traditional to e-commerce. Just as sending an invitation to a training session by email is not e-learning (Woźniak 2009ab), so answering consumer complaints by email does not make an ordinary store an e-store.

Therefore, even differentiating basic processes from supporting and obligatory ones that do not create added value (Żurek–Owczarek 2013: 18) only shifts the problem of what is a qualitative change produced by the use of ICT to realize key parts of a basic process and what is only an improvement in its effectiveness thanks to the use of cheaper and faster communications technology. The aim of using ICT tools is usually not only to make communication between actors in business processes more effective, but also to avoid the multiple

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<sup>2</sup> For a more detailed discussion see (Woźniak 2015 in press). The results of the survey from part 3 and 4 were published there in Polish.

introduction of information needed for various parts of a given process, and to make the realization of certain parts automatic.

Even though the key consequence of using ICT solutions is to extend the processes that use of such technology provides to an organization, these three types of benefit can usually be acquired without a fundamental reorganization of business processes and they therefore become a sufficient argument for the use of ICT. As a result, using ICT is a natural business tactic, which, however, does not change traditional commerce into e-business, but only into traditional commerce making (some) use of available technological tools. It is therefore worth adopting a narrower, even if imprecise, definition—which recognizes as e-commerce commercial activity in which all the important processes are organized primarily on the basis of ICT, and in particular are configured differently than in traditional business. In other words, the exclusion of major potential areas of benefit obtainable through the appropriate introduction of ICT condemns a business to being ‘not entirely an e-business’.

If we accept that electronic commerce (EC, e-commerce, commerce online) is a collection of technical and organizational forms in conducting business activity and transactions using electronic systems and the internet as a means of interaction with partners (present or future), banks, suppliers, and consumers of goods and services (Balaganow 2013: 18), it should be said that it comprises such processes as promotion, marketing, ordering, payment, and supply (Nojszowski 2004; Nowakowski 2006: 35). As the object of this text is to evaluate the conditions enabling the functioning of e-stores, and thus of the relatively simplest model of e-commerce outlet operating in the BTC system (Nojszewski 2004), the following elements of these processes will be important:

- the possibility of reaching potential or selected customers with information about promotions and the products the store wishes to present (promotions and CRM marketing)
- the possibility of convenient analysis of the parameters of the products being sold, particularly identifying the traits of products offered by a store, and comparing them with the store’s other products, as well as analyzing the broader market of providers with similar products (marketing)
- the possibility for a private person to place orders for products, and to specify not only the products ordered but also the delivery address and method of delivery
- the possibility of paying for products through the internet or in other forms, before the receipt of goods (payment)
- the possibility of delivering an order to a customer who is a private person (delivery).

In turn, the operation of an e-store entails:

1. Internet access in a given society (the market in which the store operates)
2. Internet quality (bandwidth, disconnects, etc.)

3. Organization of the e-store to enable easy searching, comparison of products, and preserving products in the computer memory based on access to appropriate computer programs
4. The services of delivery companies whose prices, conditions, and times are predictable and acceptable to customers
5. Financial services and the readiness to use them in a given society
6. Legal security of transactions realized over the internet
7. Readiness to incur risks related to e-shopping.

The first two requirements involve the technical conditions of the business environment, the third concerns knowledge that can be acquired on a given market, the fourth and fifth refer primarily to the business environment of supplementary services, the sixth to the legal conditions of the business environment, while the last (and partially the fifth), concerns the state of social consciousness. As will be shown below, in Ukraine the conditions of points 4-6 in the above list are clearly weaker than in Poland.

### **3. Analysis of selected indicators characterizing the technical and legal readiness of BTC e-commerce to function**

The simplest analysis comparing the readiness of a market (a society) to start BTC e-commerce should concentrate on analyzing the 7 variables mentioned above. It could be said that they describe the necessary conditions for the conducting of e-commerce. However, studies of e-business most often take another path and refer to high aggregate indicators, which appear to describe the level of necessary and sufficient factors combined. This occurs partly on account of easy access to large amounts of statistical data, and partly on account of the multi-dimensionality of the e-commerce phenomenon (Żurek-Owczarek 2013: 67).

The above-cited work of C. Żurek-Owczarek (2013) contains a broad review and analysis of selected indicators, as well as the position of various EU countries in regard to those indicators. Even a casual analysis shows they lean toward what is called above ‘the technical conditions of the business environment’. Only the indicator designated ‘e-readiness’, combining 100 base indicators, takes into consideration 6 areas covering the dimensions (mentioned-above) that, in our opinion, are important for analyzing the potential for BTC e-commerce. The e-readiness indicator is comprised of variables that are treated as equivalent and combined into one number with the following values in different areas:

- Technological and telecommunications infrastructure (20%)
- The business environment (15%)
- The socio-cultural environment (15%)
- The legal environment (10%)
- Government policy (15%)
- The adaptation to e-commerce of consumers and enterprises (25%).

The value of this indicator for several selected countries, which we will use for comparison in our further analyses, is as follows: Sweden (5.94—first place in

the ranking), Lithuania (4.35—41<sup>st</sup> place), Poland (4.16—49<sup>th</sup> place), Turkey (4.07—52<sup>nd</sup> place), Russia (4.02—56<sup>th</sup> place), Greece (3.99—59<sup>th</sup> place), Slovakia (3.94—64<sup>th</sup> place), Romania (3.90—67<sup>th</sup> place), Bulgaria (3.89—70<sup>th</sup> place), Ukraine (3.85—75<sup>th</sup> place)—according to: *Global IT Report 2012* [www3.weforum.org/docs/Global\\_IT\\_Report\\_2012.pdf](http://www3.weforum.org/docs/Global_IT_Report_2012.pdf) (1.09.2014). As Żurak-Owczarek (2013: 101) emphasizes, in 2010 Poland is located at the bottom of the rankings and among EU countries is preceded by only two (in 2014 by the four given above).

It should be noticed that for EU countries in 2010 the indicator was almost one quarter higher than for Poland, and thus from this perspective, Ukraine's distance from the EU average should be decidedly larger than its distance from Poland.

In analyzing the two key perspectives of our simplified list, it should be said that the percentage of internet users in 2013 in Ukraine (54%) remains at a somewhat lower level than in Poland (around 66%), and is distinctly lower than in EU countries or countries that are leaders in the field (for example, above 90% in Sweden, Canada, and Singapore). Ukraine's level of internet penetration does not depart from the level in neighboring countries, and, as in neighboring countries, internet access is growing rapidly.

Presently, the relatively low percentage of citizens having technical access to the internet arises from the late start of a tempestuous development. In practice, the www network almost did not exist in Ukraine until 2000, when the Ukrainian Internet Association (Українська асоціація Інтернету) arose, with the main aim of encouraging development of the internet in Ukraine and consumer protection (en.wikipedia Internet\_inUkraine [19 July 2014]). An additional barrier at the time was the high cost of internet connections—the cost of internet delivery and electronic equipment was very high (Trush 2014). Internet access has been growing very rapidly in Ukraine; furthermore, while particular growth occurred in Poland right after 2003, it occurred a few years later in other countries in Ukraine's vicinity, i.e., in 2006. In Europe, and especially in the EU, the indicator for internet penetration is significantly higher than in Ukraine's region—in 2013, 77% of EU inhabitants had access to the internet.

Ukraine's legal arrangements are worse than Poland's, and its level of basic legal-financial services is lower. The law regulating e-purchase security has not yet been created (Trush 2014); the convenience of delivery and the extent of electronic payment are clearly less than in the Polish market. On the one hand, the necessity of taking delivery of goods in the nearest stationary shop is fairly common; there is a relatively high cost of delivery (around \$15-\$30 depending on the e-store) and a long delivery period (up to 30 days)—on the basis of data analyzing the products of 10 of the largest e-stores, in Gemius estimates (cited after Trush 2014). Institutional possibilities for securing transactions are little used (see the discussion of research results), as is shown by the behavior of customers—as many as 85% of e-purchases in Ukraine are paid in cash, and scarcely 5% by credit card or bank transfer (data of KreditPromBank of 2013, cited after Trush 2014). In Poland, online bank transfers

had been used by 75% of those surveyed, 65% had paid on delivery, 63% had used payment services of the PayPal type, 29% had used a credit card, 19% had paid cash at the store, and 15% had made an SMS payment (Gemius 2014: 118; the basis for the percentages was 844 online customers among 1500 internet respondents above 15 years of age). It is not surprising that indicators of e-readiness locate Ukraine fairly far below Poland or the more developed countries of the EU.

A certain confirmation of the statement that the conditions prevailing in Ukraine for the operation of e-stores are worse than in Poland is the present state of this sector. Although by 2000 there were already 100 online stores in Ukraine, e-commerce has developed slowly there and later than in Poland. Growth in use of the World Wide Web was accompanied by the growth of e-commerce—in 2008 there were over 3,000 online stores on the Ukrainian market. In 2009 there were 5,500, and in 2010 the number had exceeded 6,000. In April 2014 there were around 8,000 online stores in operation in Ukraine.

The above estimates are very approximate, as until 2010 no government institution (including the Main Statistical Office) did any research into this market. This was the result both of the lack of any legal regulations and of any directions from the Ukrainian government. Thus the history of the development of this market is little known, and there is a lack of information as to, for instance, which e-store was first on the market.

In comparison, there are around 20,000 e-stores operating on the Polish market, and since 2009 the first symptoms of satiation have begun to appear—the number of newly opened e-stores has begun slowly to decline (the maximum was achieved in 2009, that is 1,735, while in 2012 only 1,303 new shops were opened) (Cichomski 2014: 113). Prognoses suggest that in 2014 the number of e-stores in Poland will fall to 14,000. However, it is sometimes emphasized that Polish e-stores constitute supplementary distribution channels for traditional sellers (84% of e-stores fill this function) and only 16% of e-stores do not sell by other channels (Cichomski 2014: 113).

This data illustrates the fact that e-commerce in Ukraine, which has a larger consumer market than Poland, is in a rather worse situation than e-commerce in Poland in terms of internet access, legal and organizational conditions, and the use of existing possibilities by the majority of e-stores. The major scale of e-store development in Ukraine shows, however, that the minimal conditions for the development of such stores have been met, even though from the above analysis it should be expected that the amount of e-commerce in the Ukraine, independently of the manner in which it is quantified, should be significantly less than in Poland or, more broadly, than in EU countries. Below we will make use of several different measurements to describe the anomaly that was the departure point for our empirical studies.

A higher level of internet access and better conditions for the use of e-stores in EU countries and Poland in particular should translate into a higher scale of online purchases. However, presently the state of e-commerce in the Ukraine

seems to be significantly better than might appear from the above analyses concerning internet access, the legal-organizational conditions, and the numbers of e-stores.

In Europe in the wide sense (including all of Russia and Turkey), 32% of the population makes purchases online. In Poland, around 25% of the population buys online. 59% buy online in the countries of Western Europe (without Germany, as the European B2C 2014 report, from which the data of this section is taken, counts it among the countries of Eastern Europe, in the Central European sense) and Northern Europe (with the Baltic countries), while Great Britain has the highest number of such purchasers—91% (this country accounts for nearly 1/3 of the e-commerce in Western Europe).

Expressing the data for Poland (9.7 million online purchasers in 2013) in terms of the percentage of consumers age 15+ for whom we have data from Ukraine, it can be stated that an approximate percentage of e-customers for Poland is 37%, while for Ukraine it is 31%, according to studies based on a sample of around 500 internet users (Gemius 2011:12). The same data, on the basis of a Gemius study of 2014, is given by I. Trush (2014: 58). Such a level of e-commerce penetration is visibly lower than should be expected if the relative proportion between the indicators of e-readiness is treated as a good comparative measure (on the assumption that since in Poland it is 4.16 and for Ukraine 3.85, this should indicate that 34% of the population there are e-customers).

The variable level of e-commerce penetration, as well as the purchasing power of customers in each of the countries, results in the varying scale of market turnover described in the analyzed report: in 2013 the yearly e-commerce turnover in Europe (in the broad sense) was 363.1 billion EUR (including 317 billion EUR in the EU), while the combined e-commerce turnover in countries such as Russia, Ukraine, Turkey, and Belarus totaled 26.3 billion EUR. In comparison, in North America this indicator is 333.6 billion EUR and in Asia it is 406.1 billion EUR (according to European B2C 2014).

It should be noted that the growth rate on these markets differs: in Eastern Europe (Russia, Ukraine, Bulgaria, and Romania), the e-market (turnover in EUR) grew by 47% (to 19.3 billion) between 2012 and 2013, in Central Europe by 23% (to 93 billion), in Southern Europe by 19% (to 41 billion) and in Western and Northern Europe only by around 12.5 % (but to 178 billion and 42 billion respectively) (European B2C 2014).

However, even an approximate estimation of the scale of online consumer spending in the budget of the average inhabitant of countries in the various regions changes the picture of the scale of e-commerce in Ukraine. A ranking of countries with the highest e-commerce market turnover in comparison with Ukraine and Poland is presented below.

Table 1. E-commerce in some countries

Country	Population <sup>1</sup>	Internet penetration <sup>2</sup>	GNI per capita Atlas method 2013 in \$ <sup>1</sup>	Turnover of e-commerce in bln <sup>2</sup>	% of population that has bought something online last year <sup>3</sup>	Av. spending per e-shopper <sup>2</sup>	% e-shopper spending per GNI per capita <sup>4</sup>
USA	316	84,2%	53 670	315,4	71% <sup>b</sup>	2055 <sup>b</sup>	4,6%
China	1357	46,0%	6 560	247,3	20%	560 <sup>a</sup>	10,2%
GB	64,1	90,0%	39 140	107,1	77%	2 614	8,0%
Germany	80,6	84,0%	46 100	63,4	69%	1300 <sup>a</sup>	3,4%
France	66,0	82,0%	42 250	51,1	59%	1512	4,3%
Sweden	9,6	95,0%	59 240	8,6	73%	1232	2,5%
Ukraina	45,5	42 % (54 <sup>d</sup> )	3 960	1,85	See text 31%	430	13%
Poland	38,5	63%	12 960	5,225	32%	535	5,0%
Romania	20	50% (55 <sup>d</sup> )	9 600	1,04	8%		
Russia	143,5	61,5%	13 860	15,5	23% <sup>e</sup>	425 <sup>f</sup>	3,7%

**Source:** 1. Data.worldbank.org: population 2013; Internet users 2013; GNI per capita 2013; 2. (European B2C 2014), 2a. Data from (EuropeanB2C 2013); 2b. <http://www.emarketer.com/Article/Ecommerce-Sales-Topped-1-Trillion-First-Time-2012/1009649> (1.04.2015), own calculation from \$: 2466 and 670 respectively, with Exchange rate 1euro=1,2\$ (09.2014). 3. Eurostat 2013 (in the Eurostat table mentioned below there is an incorrect description of 100% – % of population in the age 16-74 – addend from Seybert H. Internet use in households and by individuals in 2012, eurostat Statistic in focus 50/2012): [http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=isoc\\_bdek\\_smi&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=isoc_bdek_smi&lang=en). e. <http://www.ecommerce-europe.eu/press/2014/northern-european-e-commerce-market-expected-to-reach-36.8-billion-in-2014> (22.10.2014). f. authors calculation from \$ based on Inside Russia (executive summary) [www.ewdn.com/e-commerce/summary-part2.pdf](http://www.ewdn.com/e-commerce/summary-part2.pdf) (1.10.2014). 4. Author's calculation based on data from this table.

This very rough estimate shows the anomaly that is the starting point for the analysis being made here: in the budget of the average Ukrainian who buy on-line, measured in terms of GDP per inhabitant, the percentage of e-commerce expenditures is the highest of any of the countries under analysis, and almost three times higher than the analogous indicator for Poles or Britons (in whose countries the scale of e-commerce measured in terms of absolute value and as a percentage of GDP is higher). Thus although the size of the market for e-stores in Ukraine, measured by absolute volume or the degree of access, is lower than in Poland, yet measured by the percentage of expenditures of the average Ukrainian, it is surprisingly higher than in Poland or the countries of the EU. This suggests that an explanation for the anomaly should be sought in consciousness factors.

#### 4. Premises and research methodology

For my respondents I chose young urban dwellers from the two countries. It was assumed that comparing the opinions of these groups would provide information concerning the opinions of early adopters of new technologies. This choice of research population was also dictated by the results of representative

research on customers in e-commerce. In both the countries surveyed, the age distribution of e-commerce customers is similar—the percentage of customers below 34 years of age is 64% in Poland and 62% in Ukraine. In Poland, 19% of the online customers had not finished secondary school, but in Ukraine only 6%<sup>3</sup>.

On the assumption thus that the percentage of early adopters among young urban dwellers is distinctly higher than in a representative sample, and also on account of the ease of access to such groups, the research was conducted on these groups. 126 questionnaires were received from Ukraine and 100 from Poland.

In the survey samples, as many as 80% of the respondents were in the 18-25 age range. They were of both sexes (half of each in Poland, 1/3:2/3 in Ukraine, with a predominance of women), and had a higher education or were students (nearly 100% of both groups). The respondents lived mainly in cities, with a clear dominance of towns with over 700,000 inhabitants (in Poland 92% and in Ukraine 29%, 33% were from towns of 250-700,000, and only 12% were from towns with less than 80,000 inhabitants). More than 95% of the respondents were employed, although in the Polish group around 80% of the respondents were self-supporting, while in Ukraine not quite 40% were earning, but these funds were not their main source of support. As can be seen from this description, the Polish sample is a fairly homogenous sample of young urban professionals, while the Ukrainian group was a little more varied, although there too young professionals from large cities predominated. Their views can thus be considered a reasonable reflection of the opinions of young adopters of new technologies, particularly when it is remembered that the questionnaires were filled in online, and invitations to take the survey were sent through circles of friends on Facebook, beginning with young urban professionals of Kiev and Warsaw.

The questionnaire (or rather, two almost identical questionnaires, in two language versions, Polish and Russian) contained 12 extended main questions, and 5 questions concerning demographics. The questions concerned respondents' experience with e-purchases, the types of products purchased, preferences in the sphere of various factors influencing satisfaction with e-shopping, and questions related to trust in the internet.

The survey tested the following hypotheses:

H.1. The type of products purchased are fairly similar in both countries.

H.2. The sense of security and the convenience of e-shopping is higher in Poland than in the Ukraine.

H.3. The level of trust in the internet community is higher in the Ukraine than in Poland.

The first two hypotheses are based on findings from previous (representative) surveys, described above. They are not, however, obvious, as the samples were taken from specific groups, which were to reflect the views of early adopters of new technologies. In addition, hypothesis 1 is not obvious on account of the known survey variability between the profiles of typical baskets of

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<sup>3</sup> Data cited from Trush 2014—a report on the basis of Gemius *representative research* reports of 2014 for both countries.

purchases, characteristic of various markets in the EU. Hypothesis 3 should explain the anomaly.

The empirical data and part of the results are taken from a master's thesis written by Iulia Trush under my direction at the University of Finance and Management in Warsaw in 2014. I would like to thank the author for making the data available, as well as for having conducted the research, which involved the resolution of a range of research questions, such as the manner of reaching respondents and the choice of Russian as the language of the questionnaire addressed to Ukrainians of large cities.

## 5. Research results

Table 2 presents data about the assortment of products purchased online by the respondents. This data proves that the markets differ from each other a little as to the items purchased by young people—although the sum of ‘definitely yes’ and ‘yes’ (formulated in the survey as ‘yes, I have many times bought’ or ‘yes, I have bought’) are similar, the frequency distribution is contrary: respondents in Poland usually have a distribution of 2:1, while those from Ukraine—1:2. This shows the earlier stage in regard to experience with e-commerce of the respondents from Ukraine in comparison with those from Poland.

A clear difference between the groups concerns furniture (scarcely 26% of Ukrainians, in comparison with 58% of Poles, had had experience with buying furniture online), or products which were used in the questionnaire as indicators of the maturity of the market, i.e., variously packaged food items. These products are more often bought by Poles than by Ukrainian respondents. However, what would explain the difference concerning the purchase of children's articles? These differences could be explained by the lower average age in the Ukrainian sample. To recapitulate, H.1. should be considered confirmed, even though a clearly higher percentage of answers of ‘frequently’ were received in Poland in regard to purchases of nearly every kind of product.

**Table 2. If you have bought anything over the internet or you are planning to do so, what type of goods do you take into consideration? – answers from respondents of two countries in % \***

Answer/country Category	Yes, many times / Poland	Yes, many times / Ukraine	Yes/ Poland	Yes / Ukraine	No/ Poland	No / Ukraine
Clothes and clothing accessories for adults	71%	13%	18%	73%	10%	13%
Footwear	6%	3%	45%	61%	42%	33%
Clothing, footwear and accessories for children	8%	6%	20%	56%	62%	33%
Mobile phones, tablets, computers (electronics)	44%	12%	30%	71%	16%	17%
Cosmetics, personal	46%	8%	28%	69%	22%	21%

<b>Answer/country</b> <b>Category</b>	<b>Yes, many times / Poland</b>	<b>Yes, many times / Ukraine</b>	<b>Yes/ Poland</b>	<b>Yes / Ukraine</b>	<b>No/ Poland</b>	<b>No / Ukraine</b>
hygiene items, parapharmaceuticals						
Excursions, air & bus-tickets etc.	53%	13%	36%	68%	8%	16%
Tickets to the cinema, concerts, and others (e.g. travel)	50%	13%	31%	73%	11%	11%
Books, CDs, films	31%	6%	25%	71%	35%	20%
Sports items	9%	5%	32%	63%	48%	27%
Office supplies	11%	3%	12%	48%	58%	44%
Kitchen & home appliances	45%	13%	23%	60%	23%	22%
Furniture	8%	4%	50%	22%	33%	70%
Cars and spare parts	6%	2%	16%	14%	58%	76%
Packaged food items (e.g. fruit juice, wine, tinned food)	4%	0%	15%	10%	61%	86%
Non-standard food items, „rarely purchased in my home”	3%	1%	8%	1%	78%	95%

Source: (Trush 2014).

The sense of security in online purchases was addressed by a range of questions comparing online and traditional purchases. In both groups online purchases were not considered risky, although the predominant view was that specific measures must be taken to protect oneself against fraud. The Ukrainian group also sought a trade-off: as many as 30% considered that a decrease in security should be compensated for by a lower price.

**Table 3. Answers concerning security in online purchases**

<b>Do you feel that online purchasing is...</b>	<b>... unsafe, the risk of being cheated is high</b>	<b>... rather safe, and if goods are cheap you can take this risk</b>	<b>... not unsafe, it is enough to check the website and read opinions</b>	<b>... safe, because the risk of being cheated is similar to traditional commerce</b>
Poland	3%	9%	80%	8%
Ukraine	2%	32%	61%	5%

Source: (Trush 2014).

Another measure of the sense of security in e-commerce was the choice of payment methods. It can be assumed that choosing payment on delivery as the method of preference is indicative of a lower sense of security.

**Table 4. Answers to questions concerning preferred means of payment in online purchases**

Which type of payment will you chose?	Only cash for goods after delivery	Special cards with low limits (valets)	Credit card or debit cards	Traditional bank transfer	Electronic transfer	By mobile text message (SMS)	Transfer via PayPal, DotPay, etc.
Poland	9%	0%	28%	1%	55%	0%	7%
Ukraine	19%	0%	23%	3%	50%	3%	2%

Source: (Trush 2014).

The data in table 4 shows that in both countries the most frequent method of payment is electronic bank transfer (more than 50%), followed by credit card (23% in Ukraine, 28% in Poland). In the Ukraine, nearly 20% respondents prefer to pay on delivery of the purchased item (in Poland 9%). For data in table 4, frequency of purchases differentiates the answers—persons who often buy online consider their shopping to be rather safe (e.g., the risk can be decreased by searching for information on the web). 89% of the Polish frequent purchasers and 67% of the Ukrainian frequent purchasers believe so. However, here also, as many as 28% of frequent purchasers in the Ukraine postulate a trade-off, thus equating greater risk with a lower price (Trush 2014).

In the Ukraine, the feeling that e-commerce is risky appears to be related to fears about the authenticity of goods sold online. 54% of respondents in the Ukraine (and only 18% Poles) are concerned about authenticity of goods as an important aspect of e-shopping. Delivery conditions, return policies and payment methods are of greater importance for Poles than for Ukrainians (these factors were indicated as important by over 12% of Polish respondents, but by less than 5% Ukrainians). In both groups, around 1/3 of the respondents emphasized the importance of price. However, the attitude to attractive prices differs between the two countries, as the reverse distribution of ‘decidedly yes’ and ‘yes’ answers to questions referring to price attractiveness shows. In Poland, 65% respondents consider (‘decidedly yes’) that attractive prices would encourage them to buy online (in Ukraine—19%), while 28% of the Polish sample and 75% of the Ukrainian sample agree (‘yes’) with the statement. As can be seen, in Ukraine a (too) attractive price could give rise to fears about the likelihood of the item not being ‘authentic’.

The distribution of answers to questions concerning quick delivery suggests a certain impulsivity in the e-purchases of Ukrainians—here there is an

opposite distribution of preferences between Poles and Ukrainians, although in both countries there is a small, similar group of persons who are not ready to exchange ‘time for price’.

**Table 5. Answers to questions concerning exchanging “time for money” in online purchasing**

Are you ready to wait for delivery even 10 days longer if the cost is significantly lower?	Poland	Ukraine
Yes	52%	17%
Rather yes	38%	69%
Rather no	7%	12%
No	3%	2%

Source: (Trush 2014).

Table 6 compares the opinions of the two groups concerning e-commerce is presented in in the distribution of answers evaluating e-commerce by varying criteria. The evaluation was made using a sliding scale of 1-10.

**Table 6. “Online purchasing is...”  
(Ukraine’s answers are always second and additionally, in italics)**

Left end of scale (continuum)	1	2	3	4	5	6	7	8	9	10	Right end continuum
Un complicated	25%	38%	26%	5%	2%	3%	1%	0	0	0	Very complicated
Not convenient	<i>15,20%</i>	<i>8,80%</i>	<i>8,00%</i>	<i>2,40%</i>	<i>0,80%</i>	<i>63,20%</i>	<i>0,80%</i>	<i>0,80%</i>	<i>0</i>	<i>0</i>	Very inconvenient
Not very useful in my situation	0	0	0	1,00%	4,00%	2,00%	16,00%	26,00%	34,00%	17,00%	Very useful in my situation
The selection of goods is poor	<i>1,60%</i>	<i>0,80%</i>	<i>1,60%</i>	<i>0,00%</i>	<i>0,80%</i>	<i>1,60%</i>	<i>3,20%</i>	<i>6,40%</i>	<i>45,60%</i>	<i>38,40%</i>	The selection of goods is broad
Applicable in the case of some goods	0	0	3,00%	4,00%	17,00%	11,00%	16,00%	26,00%	13,00%	10,00%	Applicable in the case of almost all goods
	<i>5,60%</i>	<i>4,80%</i>	<i>2,40%</i>	<i>2,40%</i>	<i>67,20%</i>	<i>3,20%</i>	<i>3,20%</i>	<i>0,80%</i>	<i>2,40%</i>	<i>8,00%</i>	
	0	1,00%	0	0	5,00%	6,00%	11,00%	20,00%	33,00%	24,00%	
	<i>1,60%</i>	<i>0</i>	<i>0,80%</i>	<i>0</i>	<i>0</i>	<i>63,20%</i>	<i>3,20%</i>	<i>9,60%</i>	<i>4,00%</i>	<i>17,60%</i>	
	2,00%	1,00%	1,00%	7,00%	9,00%	21,00%	21,00%	25,00%	9,00%	4,00%	
	<i>8,80%</i>	<i>0,80%</i>	<i>1,60%</i>	<i>1,60%</i>	<i>0,80%</i>	<i>60,80%</i>	<i>3,20%</i>	<i>3,20%</i>	<i>8,00%</i>	<i>11,20%</i>	

Source: authors elaboration on data from the survey of I.Trush (2014).

A comparison of the data from table 6 shows that the difference between respondents in the two countries is considerable. The Ukrainian answers are more often situated in the mid-point of the continuum, which suggests indecisiveness with regard to the question. The two countries have a similar distribution of answers only in the case of ease of shopping (is uncomplicated); in the remaining questions, the Polish answers show a greater variety of opinion.

To recapitulate, it should be stated that the data does not confirm hypothesis 2, as both the sense of convenience, and to a lesser degree, the sense of

security, are in both countries similar in the group of young, educated, urban internet users.

Respondents were given demographical questions in order to test the level of trust they displayed in relation to strangers met over the internet.

**Table 7. Answers to questions concerning trust**

<b>Tell us something about yourself – to what extent you agree with the statements below?</b>	<b>I agree (“strongly agree” and “agree” together)</b>	<b>Difficult to say</b>	<b>Disagree (together)</b>
... strangers cannot be trusted – Poland	31%	46%	23%
... <i>strangers cannot be trusted</i> – Ukraine	30%	38%	32%
... strangers cannot be trusted – total	31%	42%	27%
... strangers met over the internet can be trusted – Poland	11%	33%	56%
... <i>strangers met over the internet can be trusted</i> – Ukraine	53%	19%	28%

Source: (Trush 2014).

As can be seen in Table 7, although the general level of trust in people is similar for both countries, the difference in trust in people met over the internet is enormous—as many as 53% of respondents from the Ukraine trust other internet users, while only 11% of respondents in Poland are of a similar opinion. This difference results from the predominance of ‘rather yes’ answers given by Ukrainians (‘definitely yes’ answers are on a similar, trace, level).

## 6. Discussion of the results

The above analysis has shown that the basic difference between Polish and Ukrainian e-commerce should be sought not so much in the maturity of the organizational, legal, or technological environment of the two countries, but rather in the different level of confidence the two countries exhibit in regard to the internet community.

As has been shown in sector reports cited in the introductory parts of the text, the technological environment in which e-commerce is conducted in Ukraine is slightly worse than in Poland, and in particular access to the internet is slightly less, which would seem to be the cause of the later start of its dynamic growth. The fact that Ukraine has not introduced any legal regulation concerning e-commerce, and monitoring of this sphere of the economy began not long ago, argues for the weakness of its legal environment. The weakness of the legal environment is clearly understood; in both groups of respondents, over two-thirds (around 70% in Poland and over 80% in Ukraine) expect the security of turnover to increase thanks to new legal regulations) (Trush 2014).

However, the sense of the risk of fraud seems to be distinctly greater in the Ukraine than in Poland, as is shown by the fear of purchasing items that are not original. The percentage of persons preferring to pay on delivery of the item is also higher, although in both countries it is connected with higher costs. The organizational difficulties involved in e-commerce in the Ukraine have not been

analyzed more closely in the text (in particular, deliveries are usually made to the nearest traditional store, as couriers do not make deliveries to homes outside of urban areas), but are confirmed above in the indicators combining many variables, such as e-readiness.

Analysis of trust as a factor enabling the undertaking of risky behavior has been widely tested in the literature concerning e-commerce. For potential e-customers trust is an important mechanism limiting the influence of uncertainty, mutual dependence, and fears of being used by a seller (Fang et al 2014: 408; Kim et al 2008: 238). A typical arrangement to increase confidence is the introduction of institutional mechanisms whereby a third party guarantees the security of e-commerce transactions, such as the guarantees arising from the use of a credit card, or in Poland the promises of the market site Allegro, which guarantees purchases to the sum of 10,000 PLN (that is, it promises to return the sum if the goods are not provided by the seller). As has already been indicated, in e-commerce in the Ukraine these mechanisms are not widely used, which suggests the value of institutional factors that are not based on legal securities or guarantees external to that market. The research described above has shown that such a social factor could be the general level of trust in people met through the internet characterizing young, educated, urban Ukrainians. This type of trust lies on two sphere described by McKnight and Chervany (2002: 42) institutional/sociological trust (trust in the situation or structures), and interpersonal trust (trust in specific others), because trust to people met in internet assume specific situation and specific others (“internauts”).

Of course, the results do not allow the conclusion that the indicated level of trust in people known through the internet in the group of early adopters of new technologies proves that the causes of the anomaly should be sought in consciousness factors. Such an understanding could be attempted only if the social roles played by e-commerce in both countries were similar and all of important conditions of the e-commerce phenomenon were similar as well. However, the two countries’ technical, legal, and organizational factors, which were evaluated in the introduction, indicate that Polish e-commerce presently has a certain advantage in this sphere.

Both these assumptions are unwarranted, as it would seem that the most important factor is the different role of e-commerce in the two societies. In Poland, e-shopping seems to fulfill two functions: an innovative satisfaction of consumer needs and a useful and convenient method of shopping<sup>4</sup>. The practice of delivering

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<sup>4</sup>in the sphere of the values professed by internet store clients, two major tendencies can be discerned in the answers of the respondents. On the one hand, the e-store users are subject to consumerism, and their lives are guided by hedonism and the pleasure principle. It is important for them to be ‘with it’ and for their products to be exceptional. They consider online shopping to be interesting as an innovative manner of satisfying their consumer needs. As they devote a lot of time to their work, and are sometimes even overwhelmed by it, they treat shopping from e-stores as a way of decreasing vocational stress and as a source of pleasure. On the other hand, e-consumers are practical persons, who take advantage of online shopping due to its usefulness and effectiveness. They value their time and money highly, as well as their own comfort. They shop in e-stores

goods bought online to the nearest traditional shop (resulting from the weaknesses of delivery services outside of large cities) suggests that the basic function fulfilled by e-purchases in the Ukraine is to supplement traditional commerce by offering a broader assortment of products than is available locally.

A certain confirmation of the hypothesis that e-commerce in Ukraine fulfills a different social role, being not so much a supplementary distribution channel by which internet users meet atypical needs as the main channel of access to products, could be the data concerning the scale of e-commerce spending in comparison with general spending. The set of data for various areas of Europe shows that the percentage of e-commerce turnover in general commerce is from 4.2% globally to 5.7% for Europe in the broad sense: from around 7% for Southern and Central Europe, to 9.5% for Western Europe (European B2C 2014). Not having separate data for Ukraine (for countries specifically understood as Eastern European, that is Russia, Ukraine, Bulgaria, and Romania combined, the percentage is 2.1%), one can refer to data provided by the Embassy of Ukraine, which shows that for various – not every day – types of consumer products this percentage is from 11% to 26% in Ukraine, and significantly below 20% only in the area of household appliances. Although this data does not distinguish the role that e-commerce plays in the daily life of Ukrainians, it could prove that e-commerce will shortly become not so much a supplementary but rather a fundamental distribution channel in Ukraine, at least for increasing group of e-shoppers.

## 7. Conclusions

Analyses of e-commerce show that ICT have not only significantly increased business opportunities through their application to transactions with individual clients, but have also gradually been changing the market position and method of organizing traditional commerce. However, both e-commerce's start and its growth rate in various countries is connected with local conditions and claims about a homogenous model of development and copying the path of the present leaders in this commerce do not necessarily find confirmation in the actual data.

Analyses which rely on descriptions of the technological, legal, or organizational barriers that threaten the rapid growth of e-commerce on specific markets, as well as rankings based on a high level of various combined indicators in these areas, would seem to underestimate the significance of social consciousness and specific local conditions, which, especially for specific markets (societies) could produce a different path of development for e-commerce, overcoming the specific barriers that it finds on the market.

The above analysis has served to verify if any reasons could be found in the sphere of values of Ukrainian society to explain why the scale of e-commerce

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because such stores are easily available and enable the rapid and convenient satisfaction of their consumer needs. In addition, they attach importance to the large choice and attractive prices, which guarantee savings' (Feldy 2012).

in Ukraine does not correspond to the scale in a country with a lower level of various barriers, namely Poland. E-questionnaires answered by two groups of educated urban young people from large cities in Poland and Ukraine provided data, which, treated as indicators of the opinions of early adopters of new technologies, shows that there are in fact differences between Poland and Ukraine in the matter of the trust internet users feel toward other persons met over the internet. Such a finding should be a point of departure for further research to analyze the mental attitudes that could explain the difference in the types and scale of e-commerce in both countries.

Theoretically speaking, it produces skepticism in regard to explaining differences in the development of specific social phenomena by the scale of market barriers, because such an argument presupposes the unified nature of such phenomena in various social systems. At the same time, it complements scientific studies of trust as a precondition for e-commerce by pointing to the need for in-depth studies with a new type of variable specifying what type of trust affects the behavior of e-consumers.

In practical terms, the above text shows that the disproportionately high level of online spending by e-consumers in the Ukraine, combined with the rapid growth of e-commerce, creates major business opportunities for trading companies on the Ukrainian e-market.

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