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THE EXTENT OF E-COMMERCE PRESENCE IN DEVELOPING COUNTRIES

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Abstract:
The purpose of this paper is evaluation of potentials for electronic business in developing countries, as well as identification of e-commerce rate. Specifically, the research is focused mostly on emerging economies, named BRICS countries (Brazil, Russia, India, China and South Africa) as compared with world's data. The emphasis in this research is on internet access and the Business to Consumer and mobile e-commerce rate, due to available data, concerning world's and national data resources. In addition, some observations of the premises and scope of e-business in Serbia will be presented.

Key words:
developing countries,
BRICS,
e-business,
B2C e-commerce,
m-commerce.

INTRODUCTION

The topic of this paper is connecting the significant rate of economic advancement of BRICS countries and their potential and scope in doing e-business. Many small and medium-sized enterprises (SMEs) in developing countries have the possibility to benefit enormously from mobile phone industry, the internet and other forms of information and communication technology (ICT) in their business activities. This has already resulted in enhanced productivity in a number of areas [1].

Electronic transaction (e-business) is the use of information and communication technology (ICT) to facilitate business processes e.g. by communicating with governments, suppliers and clients, purchasing or selling goods and services on line (e-commerce), automate business processes manage resources and implement business policies (in marketing, HR, finance, etc.). An e-commerce transaction is the sale or purchase of goods or services over computer mediated networks (broad definition) the Internet (narrow definition). At the same time, payment and delivery of the good or service can be offline [2].

E-COMMERCE IN THE WORLD AND BRICS COUNTRIES

Infrastructure for doing e-business in the world, showing the number of Internet users and comparing developed and developing countries is presented in Chart I. [3]. Internet users are persons using the Internet from any device, including mobile phones. Estimates are derived from either household surveys or from Internet subscription data.

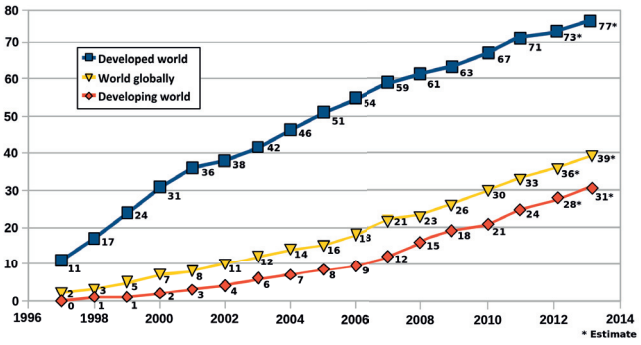

Chart I. Internet users per 100 inhabitants

There are almost as many mobile-cellular subscriptions as people in the world in 2013, with more than half in the Asia-Pacific region (3.5 billion out of 6.8 billion total subscriptions). Mobile-cellular penetration rates stand at 96% globally; 128% in developed countries; and 89% in developing countries. In the large majority of countries, 3G services are now commercially available, at least in major urban areas. United Nations International Telecommunication Union (ITU) estimates that, by end 2013, there will be about 2 billion mobile-broadband subscriptions, corresponding to a global penetration rate of almost 30 per cent [4].

Measuring e-commerce is difficult because of little official statistics on e-commerce. As the UN specialized agency for ICTs, ITU is the official source for global ICT statistics The Partnership is an international, multi-stake-

holder initiative to improve the availability and quality of ICT data and indicators. One of the key 50 indicators for orders received or placed by enterprises. The ICT Development Index (IDI) is an index published by the United Nations International Telecommunication Union (ITU) based on these indicators.

Orders placed by individuals in a household (ITU) over the Internet, do not measure value of transactions and do not capture domestic vs international angle. Also, this measurement does not consider impacts of e-commerce. Private data sources (Forrester, Goldman Sachs, IMRG, eMarketer) are varying, opaque methodologies, limited geographical coverage, focus on developed countries and expensive to use [5].

According to eMarketer's latest forecasts [6], worldwide business-to-consumer (B2C) ecommerce sales will increase by 20.1% this year to reach USD 1.500 trillion. Growth will come primarily from the rapidly expanding online and mobile user bases in emerging markets, increases in mcommerce sales, advancing shipping and payment options, and the push into new international markets by major brands.

Worldwide, the global e-commerce landscape arises with different rankings, depending on what we measure. If we look at the top 10 countries by average B2C e-commerce spending per online buyer in 2012, the United Kingdom is ahead of the race with USD 3,585, with Australia on second place with USD 3,547 and the US on third with USD 2,293. Canada, Italy, Spain and France follow with USD 1,485, USD 1,380, USD 1,339 and USD 1,258 respectively, and Germany and South Korea close the list with USD 1,141 and USD 896.

As for the number of online buyers in 2012, China was the country with the most with 219.8 million, followed by the US (149.8 million) and Japan (73.3 million). The list was completed by Germany (41.2 million), the UK (34.8 million), France (26.5 million), Brazil (23.7 million), South Korea (23.3 million) and Russia (23.1 million), with India closing the list with 19.2 million online shoppers.

The Scope of Information Society in BRICS Countries

BRIC is a grouping acronym that refers to the countries of Brazil, Russia, India and China, which are all deemed to be at a similar stage of newly advanced economic development. A related acronym is BRICS which includes South Africa. The acronym BRIC was coined by Jim O'Neill in a 2001, and in 2010 South Africa joined these grouping which than became BRICS. Although these countries are developing countries or new industrialized, they are known by fast growing economies and have significant influence on regional and global course. Those countries are members og G20 group. According 2013 data, BRICS represent about 3 billion population (40 percent of world population), cumulative GDP USD 16.0 billion (25 percent of global GDP), and USD 4.0 billion of estimated foreign exchange reserves [7].

„Internet users are persons using the Internet in the last 12 months from any device, including mobile phones. Penetration is the percentage of a country's population that are Internet users. Estimates are derived from either household surveys or from Internet subscription data"[8]. According those data China is the country with large and number one in the world by internet population, India is third in a row, but with very low penetration (12.6 percent). Among BRICS Russia has the biggest penetration, 53.3 percent of population are using internet (Table I.).

Table I. Number of Internet Users in 2012

Economy	Number of Internet Users in 2012			
	number	rang	penetration %	rang
World	2,405,518,376			
China	568,192,066	1	42.3	102
India	151,598,994	3	12.6	164
Brazil	99,357,737	5	49.8	86
Russia	75,926,004	6	53.3	81
South Africa	20,012,275	25	41,0	108
Serbia	3,500,047	76	48.1	89

The ICT Development Index (IDI) is a composite index that serves to monitor and compare developments in information and communication technology (ICT) across countries. The IDI was developed by ITU in 2008 and first presented in the 2009 edition of Measuring the Information Society (ITU, 2009a). Data shown in Table II. gives comparative review for BRICS countries and Serbia [4]. According IDI 2012, the best ranked is Russia followed by Serbia, and India being the worst graded. Serbia's data show above average compared to world's data. Brazil is among the most dynamic countries in the IDI 2012, with a value increase of 0.41 as compared with the global average increase of 0.20. The country ranks 62nd in the IDI 2012. Improvements can be seen in both the access and use sub-indices, with the strongest growth in the latter.

Table II. Comparative review of IDI index

Economy	ICT DEVELOPMENT INDEX/rang/grade							
	IDI 2012		Access sub-index		Use sub-index		Skills sub-index	
World		4.35		4.74		2.85		6.59
Brazil	62	5.00	67	5.49	57	3.41	72	7.19
Russia	40	6.19	37	6.73	42	4.34	23	8.80
India	121	2.21	122	2.50	121	0.65	117	4.79
China	78	4.18	80	4.36	66	2.70	93	6.77
South Africa	84	3.95	85	4.14	75	2.35	95	6.75
Serbia	56	5.34	57	5.82	56	3.52	50	7.99

- *Rescaling of data*. The data were rescaled on a scale from 0 to 10 in order to compare the values of the indicators and the sub-indices.
- *Weighting of indicators and sub-indices*. The indicator weights were chosen based on the principal components analysis (PCA) results. The access and use sub-indices were given equal weight (40 per cent each). The skills sub-index was given less weight (20 per cent), since it is based on proxy indicators.

The 2013 Global Retail E-Commerce Index

Market research firm, A.T. Kearney, researched and presented the results of its study, „The 2013 Global Retail E-Commerce Index" (on a 0 to 100 point scale) [9]. Online retail is defined as the sale of consumer goods to the general public through websites operated by pure play online retailers or those owned by store based retailers. This also includes mobile commerce sales through smartphones or tablets. Globally over the past five years, online retail has grown at a 17 percent CAGR, particularly in Latin America (27 percent) and Asia Pacific (25 percent).

Online sales data does not include: travel and tourism, gambling, services (such as food delivery), event tickets, subscriptions, B2B wholesale, and industrial transactions. The key factors for this index are: online market size (40%), technology adoption and consumer behavior (20%), infrastucture (20%), and growth potential (20%).

Among first 30 countries, developing countries hold 10 spots, including first place, China. Consumers in developing markets are ready to adopt behaviors similar to those in developed countries. For example, mobile phones per capita in Russia (1.8) and UAR (1.7) are higher than many developed markets. Phones are used to research products, compare prices and seek input from their friends on social media.

New Generation markets include developing markets with high growth potential, but less favorable online consumer behavior and lower technology adoption rates, lower internet penetration rates. These markets also have active mobile phone users, only China and Turkey have less than one phone per capita.

First place on the list as most attractive online market (score 84%), takes China's retail market which is worth USD 64 billion. The forecast for the next five years is USD 271 billion, thanks to infrastructure improvements, increased internet access for rural regions and predicted rising consumer behavior.

China has the most internet users (517 million), and most online shoppers (220 million). Fifty four percent of online shoppers made more than twenty purchases in 2012. Online marketplace models Taobao and Tmall own about half of e-commerce traffic in China and offer consumers access to a wide range of online retail products at competitive prices.

Eighth place (score 50,9) takes Brazil, which has 90 million internet users, more than a half of this number buy online, and is characterized as a largest social networking base in Latin America. Less than a half of Brazilians have internet access, but it is predicted that the number of rural customers will rise and that the upcoming 2014 World Cup and 2016 Olympic Games will have a positive influence.

Online retail competition is harsh in Brazil, due to its market size and growing potential. B2W, operator of the Americanas and Submarino websites, is Brazil's largest online retailer with more than 16 percent market share. Logistics and on time delivery are the great challenges for online retailers in Brazil.

Russia takes 13th place on the Index list (score 44,1). Its online market is worth USD 10 billion, and is fast growing (18 percent Compounded Annual Growth Rate - CAGR through 2018). Russia has 70 million internet users and 33 million online shoppers. About three-quarters of Russia's online retail transactions is reffering to Moscow and St.Petersburg region.

The retail market is fragmented (no retailer covers more than 4 percent of market share, so both pure –play and multichannel retailers are investing to increase sales and market share). Russian buyers online have competitive pricing and solid assortment. Using Yandex, a Russian search engine, buyers seek to discover the latest online promotions and compare pricess across retailers.

Considering insufficient Russian logistic, many retailers are investing in logistics and distribution capabilities to fill customer orders efficiently, particularly in smaller cities. Cash is the dominant payment method in a country where one in three households has a credit card, and where many do not trust the security of online transactions.

India is the second most populous country in the world (1.2 billion) and has retail market worth USD 1.5 billion. Nevertheless, India is not in the index ranking, because of its low internet penetration and significant infrastructure insufficiency. In India, only one in ten Indians use the internet, as many have no access to a computer and fixed broadband, nevertheless 58 percent of online users make purchases.

Mobile phone usage may uphold this rate, as more than 900 million Indians have mobile phone subscriptions, although 10 percent of mobile subscriptions are for smartphones. India's plain logistics and transportation infrastructure, particularly outside of the main cities, makes time delivery difficult. Cash on delivery is common in India, as only 10 percent of Indian households have a credit card. Despite the obstacles, India's large population present the opportunity for retailers, especially as investments are made to shore up infrastructure gaps.

E-commerce in South Africa

The growing Internet penetration, the spread of mobile technology and improvement of payment and delivery infrastructure are factors that can enlarge e-commerce in Africa [10]. The growing middle class seeks more convenient shopping and better quality, driving local and international Internet retailers to operate in the region.

A few strong local players have already emerged, such as South Africa's online fashion retailer Zando, and Nigeria's online mass merchants Jumia and Konga. B2C e-commerce sales were less than EUR 1 billion in 2012, but annual growth of around 40% is anticipated in the next years. The main obstacles to overcome on the way to B2C e-commerce boom are poor logistics in rural areas, low banking penetration and limited consumer education.

M-commerce and mobile payment especially have a high potential on the continent, where mobile phones are more widespread than computers, and in 2013 over 10% of active Internet users in Africa shopped on mobile phones. Over a half of Internet users in South Africa who go online at least weekly make purchases over the Internet. South Africa also is home to some of the largest merchants on the continent, such as online retailer of books and electronics Kalahari and online fashion retailer Zando. Online shopping growth in South Africa is driven by increasing Internet penetration and improving payment infrastructure, especially through mobile payment paths.

Among the prominent players on the South African e-commerce market are local online retailers and auctions website, as well as international sites. Event and travel tickets, books, hotel reservations, videos and music were the most purchased product categories.

E-COMMERCE IN SERBIA

Statistics Bureau of Serbia was carried out in 2012, eight time in a row two researches about using information and communication technologies, under the Eurostat methodology. First research is referring to the households and individuals, and second one is reffering to the enterprises [11].

Research results shows that 100 percent of enterprises use computers in doing business. 99.6 percent of them have internet connection, 73.8 precent of them have a web site. As far as the type of connection, 75.7 percent use ADSL while 45.2 percent use cable internet.

As for doing business over the internet, enterprises are engaged mostly in using electronic services of government, almost 87.6 percent. Minimal enlargement of 0.1 percent in 2012 with regard to 2011 is registered in ordering services and products over internet, that is 40.2 percent, and only 20 percent registered buying orders.

Percentage of households possessing computers is 59.9, and of households with internet connection is 55.8. 4 890 000 users have mobile devices (86.9 percent of households), while 31.6 percent uses laptop.

Purchasing over internet is more and more popular in Serbia. Citizens spent in the first half of 2013 about seven billion RSD (EUR 60 million). About 35.5 of all internet users were shopping in 2012 over internet (900 000 shoppers). Buyers in Serbia prefer e-commerce on overseas sites, mostly due to favorable offer. In 2012 citizens in Serbia were buying online mostly in auctions, paying advertising and computer services, like hosting and registering domain name, and most of the money were spent on airline tickets and tourist arrangements.

In order to usher mechanism which will facilitate domestic merchants to sell customers overseas as well, and to charge in foreign currency, it is necessary to adjust legislation rules. Since April 2013, citizens are able to use the services of Pay Pal for e-payment. Central Bank of Serbia still haven't processed the data about the arrival of Pay Pal and its influence on volume of online sales.

For the e - commerce progress in Serbia the lack of faith in institutions is of enormous importance and this is the same reason that the popularity of e- commerce is currently modest. The reason for the lack of trust might lay in technical and legislative field or in the reputation of those involved in e-commerce. Without the trust, no national strategy concerning information society can help and contribute doing e-business [12]

CONCLUSION

Measuring e-commerce is difficult because of little official statistics on e-commerce, and this is the mission to be carried out for the country's and world institutions.

Many small and medium-sized enterprises in developing countries have the possibility to benefit enormously from mobile phone industry, the internet and other forms of information and communication technology in their business activities. Mobile phones play a larger role in the expansion of e-commerce in developing countries, especially among users without terminal connections.

Opportunities for developing countries as producers are accessing new domestic and foreign markets, overcoming distance, interacting with governments, participating in value chains and offshoring of services. As users developing countries have access to goods and services at lower prices, more competition and access to knowledge and technology.

Growing middle class in the BRIC (Brazil, Russia, India and China) markets will drive competition among global e-commerce providers. In terms of smart devices, the International Data Corporation predicts that shipments to BRIC countries will overtake more developed markets in 2014. In turn, the wider usage of connected devices will enable further e-commerce in the BRIC countries, which are home to more than 40 percent of the world population.

In Serbia it is necessary to usher mechanism which will facilitate domestic merchants to sell customers overseas as well, and to charge in foreign exchange, by adjusting legislation rules. For the e - commerce progress in Serbia it is of enormous importance the lack of trust atmosphere and this is at the same time the cause of e- commerce being modest. The reason of mistrust might be in technical and legislative field or in the reputation of those involved in e-commerce. Without the trust, no national strategy concerning information society can help and contribute doing e-business

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