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E-Commerce in Emerging Economies
The cases of Poland and Turkey

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Contents

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Finishing this thesis does not only mean that I will get a Master's degree soon, it also means that two unforgettable years that I have spent in Poland in beautiful city – Warsaw are coming to an end. Throughout those two years, which include the writing process of this thesis, I experienced and learned a lot of new things.

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INTRODUCTION

Following the latest developments in technology, our daily lives and habits changed totally, especially in the late 20th century. We are living in a more virtual world now. The world is on our fingertips now. We are able to do numerous things with our computers, tablets, cell phones, smartphones etc. including shopping in a really convenient and fast way, without any time limitations, 7/24, over the internet. Electronic Commerce is the new phenomenon which is attracting more and more people every day. Growing in numbers constantly and positioning itself as a bigger part of countries' economies every other day. As our habits changed, the world economy needed to adopt itself to this new era as well. For the last two decades we are talking about a digital economy.

Especially after joining into the European Union, besides being one of the strongest economies in the CEE region, Poland also became rapidly one of the emerging economies in the EU. In this process of emergence, for becoming more competitive and to attract more investments, Poland is trying to keep up with the new trends in economy and technology. E-commerce, starting from the late 1990's became one of the driving forces of the emerging Polish economy.

Turkey is another emerging market which is developing rapidly and constantly in economic terms and becoming stronger everyday. One of the main driving forces of this is the young population in the country accompanied by the growing interest in new technologies and the internet. Due to these factors potential in e-commerce is getting bigger everyday as well.

The main purpose of this study is to understand the e-commerce concept, it's effects on the Polish and Turkish economies and to draw some conclusions regarding those two markets. Being able to understand the differences and similarities regarding the e-commerce in both countries will undoubtedly facilitate the implementation of adequate business and marketing strategies on these markets.

The structure and the methodology used in this thesis is as follows. In the first chapter, a theoretical approach to the e-commerce concept was used. A general information about the concept and related topics is provided considering that the reader has no knowledge of the subject before. Then in the following two chapters e-commerce on two emerging markets, Turkey and Poland, was reviewed and it's impact on the economies of these

countries was researched. In the fourth chapter, the two countries are compared and conclusions regarding the future development scenarios of e-commerce in both countries are drawn.

1. E-Commerce Concept

1.1 E-Commerce: The definition

As “E-Commerce” is a fast developing and rapidly changing subject, it is really hard to find one common definitive description that is accepted by every other institution, organization or government all around the world. Indeed, it really is a big problem itself for governments to put this topic into boundaries and regulate the laws in order to get taxes, or come up with regulations in e-commerce

First of all, after the introduction of World Wide Web (WWW) and commercialization of internet, especially after the year 1995, when both the personal computers and internet started to become more widespread, everybody started to put “e“ prefix to every other word that is related to any action that we are able to do via our computers, through the internet. Especially after the common acceptance of the word e-mail, which is an abbreviation for electronic mail. Some examples like this are: “e-marketing”, “e-governance”, “e-signature” and so on. Like the other usages it is possible to encounter the words “e-commerce” and “e-business” at the same time which can lead to an ambiguity in readers’ minds. Actually as there is no commonly accepted definition of these concepts, it is hard to say if they are meant to be the same or not.

In his book Dave Chaffey (Chaffey, 2002, pp. 5-9) refers to this problem, and concludes it as follows. At this moment, because of the rapid changes in terminology there is no point of getting stuck into fruitless discussions whether you use “e-commerce” or “e-business”. His main argument about the difference between “e-commerce” and “e-business” concepts is the scope of them. In his opinion e-commerce is a subset of e-business, where he defines e-commerce as “all electronically mediated information exchanges between an organization and its stakeholders” and going further he adds to that definition that it has two subsets also, “buy-side e-commerce” and “sell-side e-commerce” in which, one consists of the sharing of information between suppliers and on the other, with the customers. And when it comes to e-business, he comes up with the following definition: “E-business are all electronically mediated information exchanges, both within an organization and with external

stakeholders supporting the range of business processes." So basically, e-commerce is more about the financially related (buy/sell) transactions mostly involving the other companies and e-business also adds up to any kind of business process of the company which it conducts in the electronic environment.

WTO also agrees that there is no universally accepted definition of e-commerce, but they come up with a definition admitting that in their understanding it is: "the production, distribution, marketing, sale or delivery of goods and services by electronic means." (WTO Committee on Trade and Development, 1998, p. 2).

It is possible to come up with dozens of more definitions found from various sources which can be accepted as correct as there is no one definitive answer to this question. Nowadays, it is even possible to see that online shopping and e-commerce are used as semantic substitutes. For the purpose of this thesis, e-commerce is referred to as the buy/sell activities based on online transactions unless stated otherwise.

1.2 E-Commerce: Background

As it was already mentioned before, in our era, when e-commerce is referred, online shopping comes to our minds first. Until today, e-commerce evolved in three main stages which are: EDI based e-commerce, Internet based e-commerce and e-concept based e-commerce (Zheng Qin, 2009, pp. 4-7) . EDI based e-commerce is not the main topic of this thesis as internet based activities are our real concern but still we can say it was the first milestone set back in 1960's and helped today's e-commerce to shape in today's condition. It was mainly eliminating the need of documents to be exchanged in hardcopies rather making it possible to exchange documents electronically.

The real story behind internet based e-commerce began with, when Michael Aldrich invented a system, which he called "teleshopping", in which he made it possible to connect a tv, to a real time processing computer by a telephone line. The system he founded was used more B2B oriented as it was almost impossible at that time to find a pc in anyone's house, there were a lot of implementations that the system was used for B2B in a variety of business sectors from insurance companies to travel companies, but the first trials of B2C model were

also based on Aldrich's invention during the 1980s. It was not viable to concentrate on B2C solutions yet as both of the technologies lacked developments, especially considering the facts that the internet was not yet developed enough during the 1990s and pc's were also not that common at that time as well.

The next big step during the development process was the invention of the web browsers, which we can easily say that, they made it possible for every kind of end user to use the information shared through the internet easily. The first one of them was developed by Tim Berners-Lee in 1990 and it was called WorldWideWeb which was named Nexus afterwards. In 1993, the Mosaic came, which was one of the first graphical web browsers which made it even easier to use the internet with some additional features like pictures, texts, etc. And after it became successful, innovator Marc Andreessen founded the company Netscape and developed the Mosaic influenced browser Netscape Navigator, and with Microsoft also getting into the market in 1995 with still existing browser of their own, the Internet Explorer, the war of the browsers began.

In the meantime, Netscape was also developing the SSL technology which was enabled to share encrypted information through the internet via browsers (it was introduced in 1994). What was introduced with the SSL technology according to Mckinley (McKinley, 2003, p. 3), was that the protocol combined 3 points in order to provide security, which are:

· privacy - connection through encryption

· identity authentication – identification through certificates, and

· reliability – dependable maintenance of a secure connection through message integrity checking.

After the end users became able to use internet comfortably, it was time for B2C model to come in to our lives. Before SSL was introduced, in 1992 Charles Stack opened the first online bookstore, more than two years before Amazon came into the market, the "Book Stacks Unlimited" (Klein, 2002). But the first secure online transactions, similar to our time came out in 1994, August. It is still an arguable matter who really claimed to be the first one, as two different sides are still claiming that they had the first transaction securely over the

internet, nevertheless there is one truth, according to both of the sides: they both claim to have done it in August, 1994.

NetMarket claims to sell a CD copy of English musician Sting's "Ten Summoner's Tales" album by that time, and The Internet Shopping Network claims to sell computer supplies 1 month earlier than that time (Gilbert, 2004). Nevertheless, there is one exact date that everybody seems to agree just after a little while after those two, as a real pioneer in e-commerce era, Pizza Hut sold the first pepperoni pizza with mushrooms and extra cheese in 1994 as well. After that we can truly say that a new age has begun, in 1995 two of the giants started their businesses Amazon and Ebay, which are still amongst the top two entrepreneurial stories of all times and still leading the sector in many aspects.

1.2.1 AMAZON.COM

On the 16th of July 1996, CEO Jeff Bezos founded the company in Bellevue, Washington. No more than a few people, and shipping boxes were there then and now it became one of the biggest online retail stores, which they no longer just sell books, but offer massive variety of products.

Figure 1 - Amazon.com company logo

In the first days of online retailing business, selling books was obviously a good choice, in which there was no need to touch to the products or feel them during the purchase

by the potential customers, and neither there was a chance that the books would get rotten. What's more to add was that to reach out to any wished book was a problem especially when you were living in a village with just a couple of bookstores maybe. There was no chance that the bookstores to stock all of the books that you would have wanted to buy and read in their shops. Another driving force was, of course, the prices. A combination of those two advantages, plus a great customer oriented approach led the way to a big success.

Figure 2 - A screenshot from the first days of Amazon.com

Source: (Okun, 2012)

The company climbed up the stairs of success really fast, first got into NASDAQ stock exchange, then opened up it's first international stores in UK, and Germany and from that moment on, amazon.com continued it's unstoppable growth. Now Amazon is a "Fortune

100"[1] company, not only selling books, but with their own words: "With a mission "to be Earth's most customer-centric company, where customers can find and discover anything they might want to buy online, and endeavors to offer its customers the lowest possible prices," Amazon.com and other sellers offer millions of unique new, refurbished, and used items in categories such as books; movies; music & games; digital downloads; electronics & computers; home & garden; toys; kids & baby; grocery; apparel; shoes & jewelry; health & beauty; sports & outdoor; and tools, auto & industrial." (Amazon.com, n.d.)

In his paper Le Kha (Kha, 2000, pp. 89-95) discusses the key factors of Amazon's success. First point he comes up with is; the market and industry knowledge as well as a good understanding of the internet itself. Second, value added customer service that Amazon came up with. Bezos understood that being competitive with just the prices would have worked up to one point, where other stores could take the advantage in that aspect anyway, what Amazon tried to do, and succeeded in the end was to give the customers another reason to shop online besides the discounts, such as opportunity to find related books when you are shopping on one subject or being able to ask for the foreign versions of the books that are searched for. The logistics is another key factor in their success. Amazon managers decided to use in-house distribution unlike the other internet retail companies that are using third-party logistics companies. The idea was to control customer satisfaction by handling all the steps of a order within the company. In order to satisfy this goal they started to open their own distribution centers. Another factor was their growing strategy, growing with the best. Every new partnership or acquisition meant new customers and visitors to Amazon.com. But maybe the most important factor is that Amazon never stopped to innovate, indeed continued to innovate constantly and rather just being an internet retailer also became a technology company as well. Amazon continues to innovate, and come up with a lot of new innovations everyday, like some say, helping to shape the future.

[1] Fortune 100 is an annual list of the 100 largest public and privately-held companies in the United States. The ranking is compiled using gross revenue figures, and is published by the Fortune magazine. (Investopedia, n.d.)

1.2.2 EBAY

Ebay is another e-commerce company that changed our shopping habits totally. It was founded by Pierre Omidyar in 1995 as an experiment on internet. He coded a web site in a sense that a conventional marketplace works in real life. And to test it, he put one broken laser pointer on the site, to see if anybody would buy anything from this site, and it was sold surprisingly to a collector sometime later. It was literally the beginning of a phenomenon.

Figure 3 - Ebay company logo

Ebay created an opportunity to connect individuals who wouldn't be able to connect each other in any other way from all over the world. With this bright idea, and with a great brand management, now they are active in 39 markets, with over 90million users worldwide, more than $1900 valued goods traded each second through them. They also own the PayPal company which is the first choice of secure payments in ebay.com, and in many other sites, but Paypal is not the only one. They also own shopping.com , gumtree and many others besides those and getting bigger every day. (Ebay Inc, n.d.)

1.3 The expansion of the digital economy

We can simply say that it is a technology driven era that we are living in now. Innovation and technological developments are shaping our world, even our daily lives and habits. We are able to connect to anybody just within seconds no matter where they are thanks to internet now. To picture how fast our lives are changing, it can be enough to look what UN came up in one of their latest reports, which indicates that 6 out of 7 billion people

living in the world have mobile phones now where only just 4.5 billion have access to toilets. (Robson, 2013)

We already passed the point of last return, innovations are just essential parts of our lives now and as the evolution suggests we are adapting to it one way or another. And e-commerce is one of the most important drivers of the new, so called, Digital Economy, which is getting bigger and bigger in figures every year.

BCG takes a look at the contribution of the Internet Economy to the G20[2] economies in their report. (David Dean, 2012)

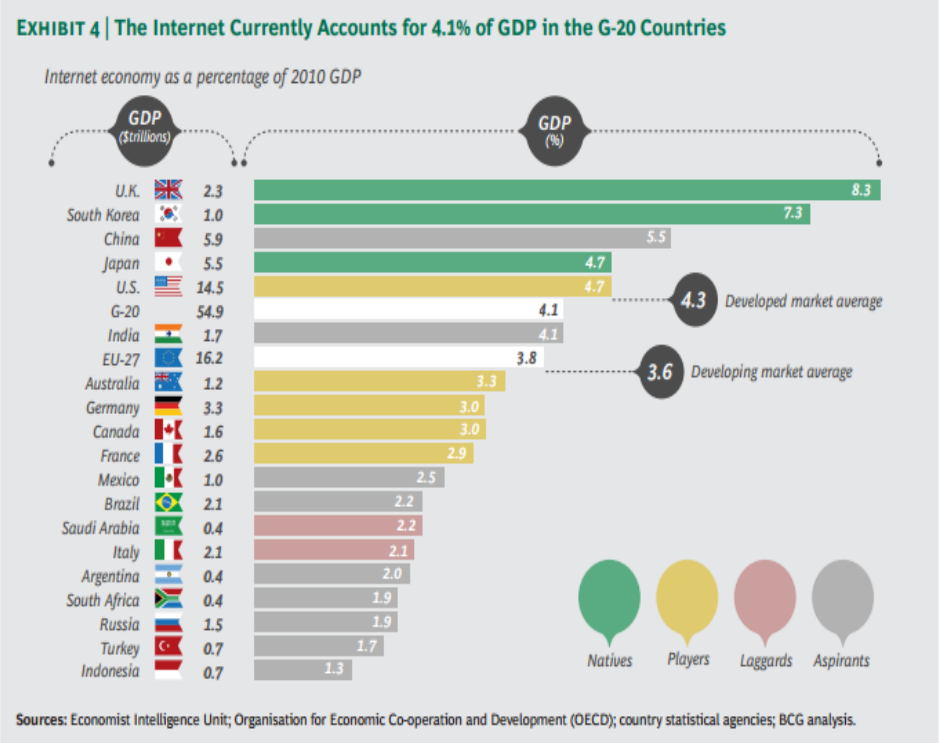
As they indicate, by the year 2016, the projected number of internet users will reach 3 billion people worldwide which is nearly 43 percent of the world's population. And the internet economy itself will reach $4.2trillion just in G20 countries.

Continuing, according to the BCG report, the internet economy is still developing very rapidly and it is projected that it will be the leading contributor amongst all the other sectors with a 8 percent growth rate in the next 5 years.

And as you can see in the Figure 4, as per GDP contribution, on the average there is no big gap between the developed markets in EU27 and developing markets in EU-27.

[2] G20: The Group of Twenty (G20) is the premier forum for international cooperation on the most important issues of the global economic and financial agenda. (G20, n.d.)

Figure 4 - Internet economy as percentage of 2010 GDP's



Source: (David Dean, 2012, p. 8)

And it is just the tip of the iceberg that we see, as there is even a bigger story behind. They describe it as "G-20 consumers researched online and then purchased offline (ROPO) more than $1.3 trillion in goods in 2010- the equivalent of about 7.8 percent of consumer spending, or more than $900 per connected consumer." (David Dean, 2012, p. 10)

ROPO has different effects in every other economy whereas the things differ a lot as the country changes. Like in China for example, grocery items are the most ropoed items where in US cars lead this category. Even if the things change, as because of the regulations or delivery infrastructure obstacles or because of any other impact, we can not neglect the effect of ROPO as it has an estimated figure of $37 million, where online retail shopping just accounted for $2 million in Turkey in 2010 for example.

As we can see, the volume of sales is getting bigger and bigger every day and it is inevitable to run away from it if a company wants to be really successful in the end.

1.4 Types of E-Business Models

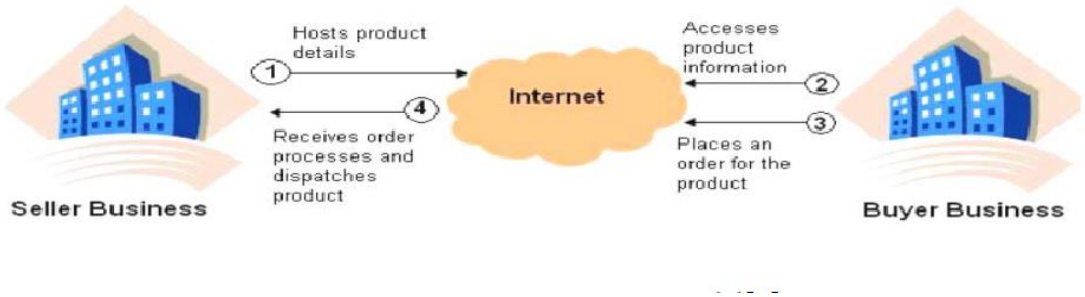
It is possible to classify different types of e-business models depending on the choice of classification criteria such as participating parties, technology used for the business, theme of the business etc. but the most common classification depends on the participants or in other words, involved parties. It is not necessary to choose just one of the business models to implement as companies can implement more than one of them at a time.

In the literature it is possible to come across different classifications even just from the involving parties' point of view too. But the most common ones can be listed as follows:

1.4.1 B2B (Business To Business)

As it can easily be inferred from the name, it is the type of e-commerce that takes place between two or more organizations (companies). This exchange between the companies can occur with the involvement of products, information sharing or sometimes as the exchange of services. This model is the oldest and most common type of e-commerce. Whilst in the first examples of this model the ways of information sharing were different (such as using telephone lines, faxes etc.) today the internet is used mostly. Most common usage of B2B model is to sell or buy products for manufacturing goods. Nowadays most of the biggest international retailing companies such as Dell, HP etc. uses B2B model for purchasing goods (most of the time wholesale) for manufacturing the goods that they sell to their consumers either directly by B2C model or again by B2B model to their distributors or wholesalers.

Figure 5 - B2B e-commerce

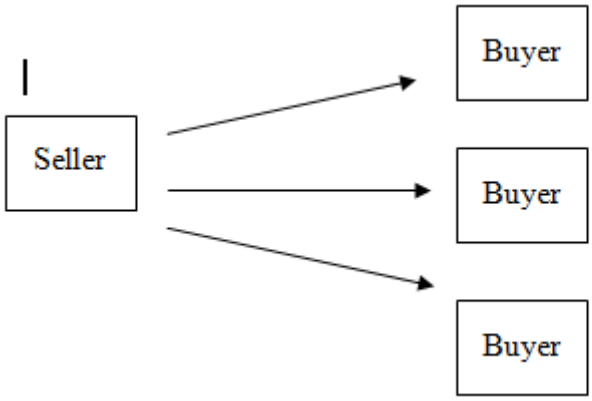


Source: (Minculete & Minculete, 2013, p. 105)

It is also possible to classify in different ways to conduct B2B model such as:

- One to many
    - Sometimes also referred as "sell-side B2B". This model concentrates mainly on one company's selling side. Basically one company tries to serve the other companies their services and/or sell their goods over the internet or intranet.

Figure 6 - One to many B2B

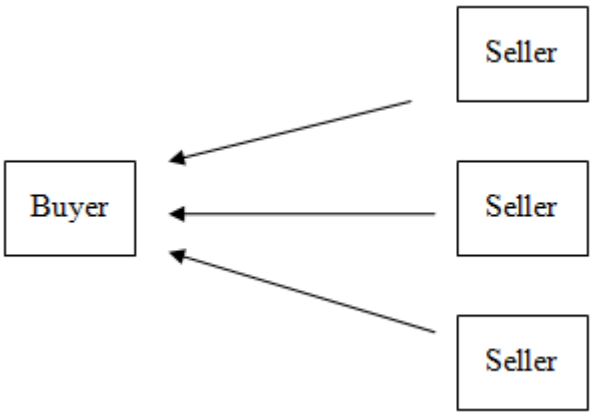


Source: Adapted from (Efraim Turban, 2007)

- Many to One

    - As opposed to the One to Many model, this model concentrates on a company which tries to procure it's needs by online procurement. It is sometimes referred as Buy-side B2B.

Figure 7 - Many to one B2B



Source: Adapted from (Efraim Turban, 2007)

- Many to many (e-marketplace and hubs)

    - This model, as it is sometimes referred as e-marketplaces, follows just a bazaar logic in which there exist many buyers and many sellers where they meet electronically to trade with each other, sometimes ran by a third-party consortium or a chamber.

In his paper, Türkoğlu discusses the advantages of B2B and gathers them under the following 5 major topics (Türkoğlu, 2006, pp. 14-16)

Low procurement costs:

First of all B2B model makes it so much easier to share information between the companies which leads to a more competitive market for everybody. Especially thanks to this model, small and medium sized companies can get into the competition easier, and sometimes they come up with more competitive prices than the bigger rivals.

In their research, Chandrasekar Subramaniam and Michael. J. Shaw (Chandrasekar Subramaniam, 2002) deeply examined the benefits and handicaps of web based procurement systems including their effect on costs. They are trying to analyse the effects in every aspect, and try to analyze each of four procurement systems individually. A brief conclusion of their own can be found in the table next page.

Table 1 - Effects on procurement

Form of Web-based procurement	Factors that create the value	Factors that affect realized value
Buy-side procurement system	Reduced transaction costs Higher process quality Increased system responsiveness Lower development costs Increased control	Process characteristics Degree of centralization Degree of integration with the enterprise systems Bargaining power of the buyer
Private B2B e-market	Reduced product price Knowledge creation and dissemination Lower search costs to locate sellers	Product characteristics Rate of innovation in the industry Supplier fragmentation Bargaining power of the buyer
Industry B2B exchange	Reduced product price Increased utilization of surplus assets Lower search costs to locate sellers or buyers	Product characteris tics Size of industry Industry fragmentation Power of buyers and sellers Coordination among the buyers
Third-party B2B e-market	Lower product price for buyers Lower search costs for both buyers and sellers Service quality	Industry fragmentation Liquidity Industry participation

Source: (Chandrasekar Subramaniam, 2002, p. 5)

In a word, they come up with the conclusion that once the systems were created, installed and started to be used correctly the companies start to benefit a lot, but if one of those phases are erroneous the outcome could be disastrous, in other words the potential of lowering costs is really high once the value is created correctly.

Low cycle times:

As well as a decrease in procurement costs, it also leads to a decrease in cycle time as electronically information sharing decreases all the waiting times to a minimum level which also means instant notifications to all parties.

More efficient customer service:

First of all, as the old Latin proverb "*Verba volant, scripta manent"* states, which literally means "spoken words fly away, written words remain", in business it's important to have written copies but at the same time, time is money, especially in today's world, you can't wait for the postal service to deliver your papers for every information sharing, or your orders, receipts etc. Thanks to B2B this processes are faster than ever, the same thing can be said for customer services as well. One of the most important things in customer services is to be able to communicate well with the customers and to define problems good enough, over the phone that is possible up to one point, and most of the times it is leading to miscommunications between the parties, electronically information sharing decreases such situations to a minimum and thanks to modern CRM modules everything can be tracked down easily in this process in every step.

Low sales and marketing costs:

His point of view simply highlights the opportunity to cut down the costs when trying to attract the other companies to purchase your goods.

Thanks to B2B model opportunities such as being able to show your items online, it is possible to cut down the costs of showing and storing them in a showroom or in a store which companies need to invest in order to attract customers, and in B2B cases when customers are enterprises, you need to call or visit the other companies' procurement teams in order to show your goods/services, to describe them effectively and cover their accommodation expenses and other related costs if you don't have a branch where the other company is based on. B2B over the internet seems to be really cost effective and reasonable option.

New sales opportunities:

Internet means real time business and connectedness to worldwide network of companies, which means a lot, especially in our rapidly globalizing world and digital economy era. In Turkoglu's own words: "By having an online presence and creating customized services for the business market, vendors can develop profitable new markets, both locally and globally." (Türkoğlu, 2006, p. 16)

1.4.2 B2C (Business To Customer)

This is the model where companies target the end users rather than other companies and offer them their services or sell their goods via internet channel, retail transactions as we call it in other words. This is the model, where most of the online retail shops use to sell their goods to people directly. A company just using this model not really differs with a shop in a shopping mall basically in the sense that they do business.

Worldwide known Amazon and Barnes & Noble can be given as examples of the Internet retail companies whereas Dell can be a good example of a B2C company working with a B2C model but with a difference to the others it uses the mass customization technique as a retailer. They are both a retailer and producer at the same time. They are selling customized computer products based on the customer preferred specifications. (Constance E. Helfat, 2000)

1.4.3 C2C (Customer To Customer)

This model is conducted mostly through e-marketplace sites where two end users, customers of the site, can find each other and sell or buy from each other. Most of the examples of this model are auction sites or simple listing sites. Even though trades are occurring between the two customers, the site in the middle is acting like an interface between them.

1.4.4 M-Commerce

"Mobile commerce, often referred to as m-commerce, builds on the advances made by e-commerce (such as automated, electronic processes) but makes interaction available to a wider audience in a more personalized way" (GS1 Mobile Com, 2008, p. 12).

This term started to be used especially after the smartphones became more widespread as well as other mobile devices such as tablets, pda's etc. This lead to a "mobile internet" era which means with these smart devices you can connect to the internet at any time when you are mobile.

"The key devices for accessing the mobile Internet -currently dubbed –smartphones- are powerful new computing devices offering traditional wireless voice service as well as native software applications and, perhaps most importantly, the ability to connect to and run a myriad of Internet-based services including email, geo-location, streaming video, and social networking, while providing a good user experience" (Martin Kenney, 2011, pp. 2-3). As of 2012 , there are 1,03 billion smart phones in use worldwide and it is predicted that this figure would reach a total of 2 billion mark in 2015 (Five Star Equities, 2012). M-commerce is not really differentiated in terms of business model, but the needs of it, especially the opportunities and technological needs differ a lot and that's why we handle m-commerce as a separate topic.

1.4.4.1 QR Codes

Nowadays, it is really easy to encounter shapes like Figure 8 everywhere which are called QR Codes. "QR Codes, also known as "Quick Response" codes, are an advanced form of a barcode that can store over 1800 characters of text information. With the advent of smartphones and QR code reader mobile applications, QR codes have grown in popularity for their convenience in transferring information to a cell phone." (Stanford University, 2013)

Figure 8 - An example QR Code created by http://goqr.me/ linking to example.org

Source: (Goqr.me, 2013)

These codes are becoming essential parts of our daily lives as they are easy to use and nowadays almost every smartphone is able to decode those codes out of the box or via some additional applications. Inés Ramírez Nicolás discusses QR codes and their uses in e-commerce; one of their advantages is the possibility to connect companies' online and offline stores. For example putting the QR codes of the items on to store windows next to the items which creates the opportunity to buy online your stuff even if you are doing just window shopping or the possibility to buy a sold out item from an offline shop with just scanning it's QR code. What's more is the ability to use QR codes as commercial items and lead the people to check products and services directly when they're for example using the public transportation and it helps people not to forget your advertisements. As an example, Tesco, which is one of the biggest retailers in Korea as well as other countries, put just some posters with QR codes of the products in the Seoul subways in 2011, and offered a service where customers could just scan those items from the posters and get same day home delivery. That led to their online sales to a %130 increase. (Nicolás, 2012)

1.5 Electronic Payment Systems

One of the main concerns over online shopping is the need of the payment online as well, in other words the need of sharing information with the e-commerce businesses. Most of the time people not feel safe sharing all the information with the sellers. That's why with the emergence of the e-commerce a variety of payment options came into our lives, to make the customers feel safer, and make the processes more secure and comfortable. Another aspect is the need of different options that is accepted commonly and gives people the opportunity to buy stuff online worldwide, which can be expressed in other words as the need of common gateways that people can use globally.

1.5.1 E-Money

"Electronic money is a digital equivalent of cash, stored on an electronic device or remotely at a server. One common type of e-money is the 'electronic purse', where users store relatively small amounts of money on their payment card or other smart card, to use for making small payments." (European Commision, 2013)

As European Commission's definition also suggests it works in an "electronic purse" logic, with your conventional money you're obtaining your electronic money to use it after the purchase of this electronic version.

"E-money may be carried on a number of electronic devices and may be downloaded from an ATM, a shop-based terminal or the Internet. It can perform the same functions as physical cash: it can be used to buy different goods and services; can be redeemed for physical cash; and may be exchanged person to person. It may be used in the physical world by inserting a card into a terminal or by using non-contact wireless technology; and, in the virtual world, over the Internet from a PC or a mobile phone." (Çam, n.d., p. 3) As of today, a lot of banks are offering stickers, watches, cards etc. with "paypass" technologies for the easier use of e-moneys.

In e-commerce, the advantage of e-money is that consumers feel more secure as they are working with their e-money supplier rather than giving credit card or other information directly to the e-commerce sites. Anonymity is another benefit why people tend to use e-money sometimes as both parties only need to deal with the e-money intermediary for the payments. The main advantage of this method in e-commerce however is that it makes it possible to cut the high processing costs especially for the small amounts of money transactions, which is a big problem for the businesses when they make credit or debit card transactions. And for the customers it gives them the opportunity to spend their money in a responsible way as it just gives them the opportunity to spend as much as they want in opposition to credit cards.

1.5.2 E-Checks

As it can be inferred from the name, E-check is similar to conventional checks. "An electronic check is a debit payment including the payer's name, payee's name, identity of the payer's financial institution, the payer's account number and check amount." (Jae K. Shim, 2000, p. 43)

In e-check modules, payments used to be done by simply giving just the needed information into the e-commerce sites but it was a bit similar using the credit cards through their sites as well. Nowadays as most of the banks have online banking systems after you choose to pay with e-check system, you're directed to your bank's system just to fill your check details and you just give acceptance for your bank to fulfill the checks requirements. It is rather convenient and easy to implement for all size of businesses.

1.5.3 Credit and Debit Cards

In conventional trade, credit cards are being used around 18% in transactions whereas this number increases to a 98% in e-commerce transactions. (Ekergil, 2013) The reason

behind this is that almost everyone has either a debit or credit card nowadays, it is convenient, fast and secure if the site you are using is a trusted one. Another reason is that both the stores and the banks offer some special promotions, installment options, discounts etc. specially for the credit cards.

The main drawback of this payment method besides it's all advantages like easiness, convenience, and speed is that there is a common disbelief that it is not safe. But over the past couple of years the information security software business developed a lot and even now some companies are offering zero liability which literally means, when an account is compromised the account holder is not liable for any activity from fraudulent purchases. (Samuels, 2013)

1.6 Advantages of E-commerce

In his article V. Rajaraman (Rajaraman, 2000, pp. 21-22) discusses the advantages of e-commerce and lists the main advantages as follows:

- Availability

  You can reach to anything from anywhere as long as you have the internet connection, 7/24 as the shops are always open.

- Variety of goods

  You can search for the desired product in many other shops just in a couple of minutes.

- Recommendation systems

  In most of the online stores you have the reviews and recommendations part for the bought products, you can make your choice depending on them.

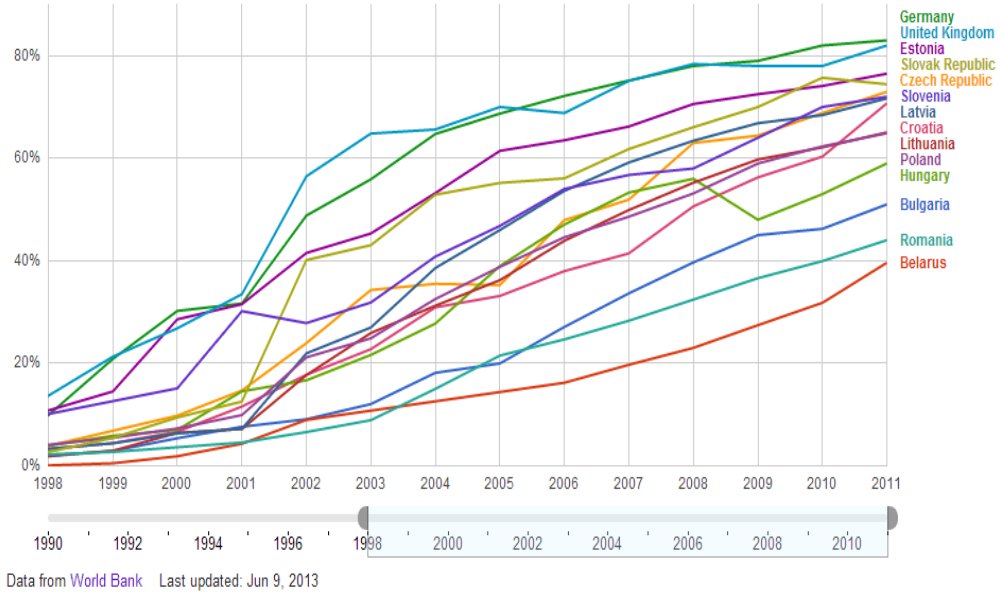
And from the business perspective, it is much easier and less costly to reach out to customers. Also, the order processing costs are much less as well. It has rather faster payment times. What's more to add to those is the possibility of eliminating the middleman and reaching out to the customers directly.

2. POLAND

1.7 Internet in the CEE region and Poland

As internet usage continues to increase worldwide, it is also increasing in the CEE area as expected, especially considering the fact that the most of the countries in the region nowadays can be classified as emerging economies or emerging markets.

Figure 9 - Internet Usage as percentage of Population per 100 people



Source: (Google Public Data, 2013)

As the region mostly consists of transition economies following their liberalization and macroeconomic stabilization processes, the emerging of the markets gained pace especially after the 2000's, which almost corresponds to a 10 year latter of the fall of the Soviet Union. This pace in the economies leads to a development in a lot of areas which includes the infrastructure in these countries too. This also includes the internet infrastructure in the countries of the region.

Among the CEE countries Estonia, Slovakia, Czech Republic and Slovenia made great progress in the last decade and came to a point that out of every 100 people in those countries

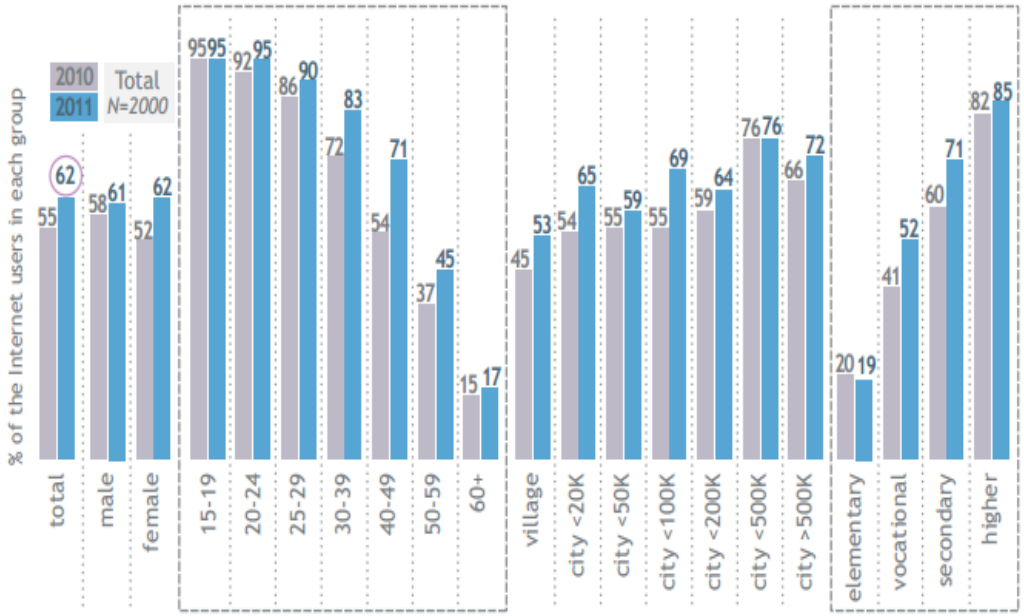
76.5, 74.44, 72.97 and 72 people respectively are able to reach internet, whereas this number corresponds to a number around near 80 in so called developed countries like in Germany - 83, and in United Kingdom - 82. But not all of the countries in the region progressed at the same level. Hungary for example, after the 2008 economic crisis lost it's pace seriously and it took almost 3 years to find the same point where it was before the crisis. And in countries like Bulgaria, Romania and Belarus still 50% or more people are unlikely to use the internet.

On the 17th of July in 1991, Rafał Pietrak, a physician from Warsaw University made the first IP based connection with the University of Copenhagen which resembles the symbolic birth of Internet in Poland. (Chodak, 2008, p. 1)

After this time until the new century, it was all about the baby steps of internet in the country. Like in most other countries in the region, it was used for the academic purposes at first. But now, Poland sets it's position with a 64.88% in the above list. Even though we can't say it's neither enough nor they have the best position, it is obvious that after 2001 the number of internet users grows up regularly.

Agora S.A & TP Group's research also support this data. (Agora S.A & TP Group, 2011) According to their report, almost 2/3 of the population above 15 years of age uses internet at least from time to time. On the average, they are familiar with internet for around 6 years. And the most common place to use the internet is still private apartment or house.

Figure 10 - % of the Internet Users in groups in Poland



Source: (Agora S.A & TP Group, 2011, p. 21)

As of today Poland has a median age of 38.2 amongst it's citizens (Devictor, 2012) and up to that age it is much more common to use internet when it's compared to the older age ranges.

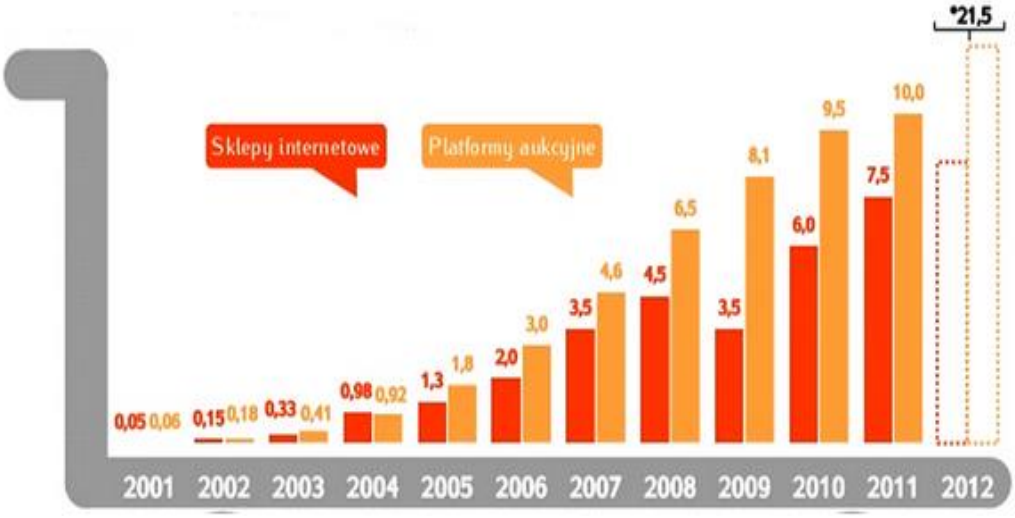
1.8 E-Commerce in Poland

The first examples of Internet shops in the country also date back to 1994 as the whole world but the difference here is that the ones in Poland were not exactly working as a e-commerce shop that time. They were working like mail order shops which were working with e-mails instead of conventional mail. Even though internet came to the country not so late, and it was already present in the country during the mid 1990's, while e-commerce was developing worldwide, it was not so widespread within the country as because the communication infrastructure was not that good. It was due to monopolistic position of the Telekomunikacja Polska (the Polish national telecommunication operator) at that time. (Chodak, 2008, p. 2). Until the 2000 era, it was a painful process for e-commerce in the country because of the lack of sufficient progress in the development of infrastructures, and also lack of proper legislative framework in this area.

With the beginning of the new century though, first a law concerning customer rights came into act in March 2000, and in 2001 Telekomunikacja Polska lost it's monopolistic position and internet market started to become more competitive. But even for this period it was hard to change consumer behaviors directly and to gain trust. Banks started to offer internet banking services slowly in the first years of this decade as well.

But Chodak indicates especially the period between 2003 and 2006 as the real start of the Polish e-commerce. During this period the e-commerce market value increased more than 6 times and people started to get used to the idea of buying things online on 7/24 basis with cheaper prices.(Chodak, 2008, p. 3)

Figure 11 - Value of Polish e-commerce market. 2001-2011 are actual numbers and 2012 figures are estimates in PLN mld. Dark colors represents e-shops and light ones online auction sites



Source: (Republic of Poland Ministry of Treasury, 2013)

Since 2007, e-commerce in Poland is getting bigger and bigger every year in figures, even the economic crisis during 2008-2009 could not stop this expansion. This is also related to emerging Polish economy as well, which proved to be one of the best performing economies during the crisis in Europe.

Poland is now shown as the fastest growing e-commerce market in the EU and the most important driving force behind this grow is shown as the need of cheaper buying options. Especially after the economic crisis people tend to search for the alternatives and an

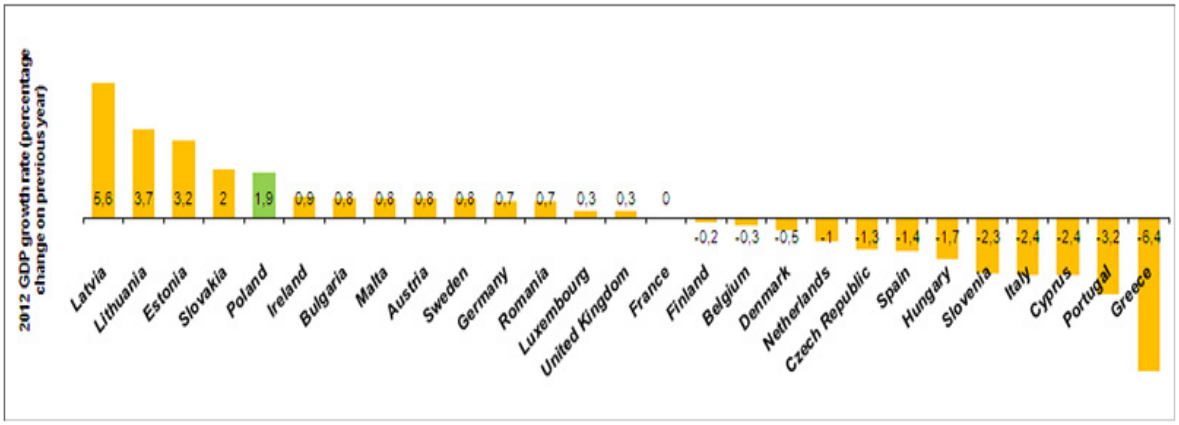
other conducive factor is the constant rise of penetration rates of the internet in the country. (Schmuck, 2013)

1.9 Polish Economy and E-commerce

As like the rest of the world, especially after the new millennium, internet has become a new phenomenon both for entrepreneurs and consumers. And also besides the new entrepreneurial acts, big old companies could not resist to get into sector in order to become more competitive one by one.

In the beginning of 2013 Poland was shown as the 12th top emerging economy in the world by The Bloomberg with an expected GDP growth of 21.2% from 2013 to 2017, inflation rate of 2.5 percent, and governmental debt as percentage of GDP reaching 54.2. (Bloomberg Markets, 2013)

Figure 12 - EU 27 member states' 2012 GDP growth rate

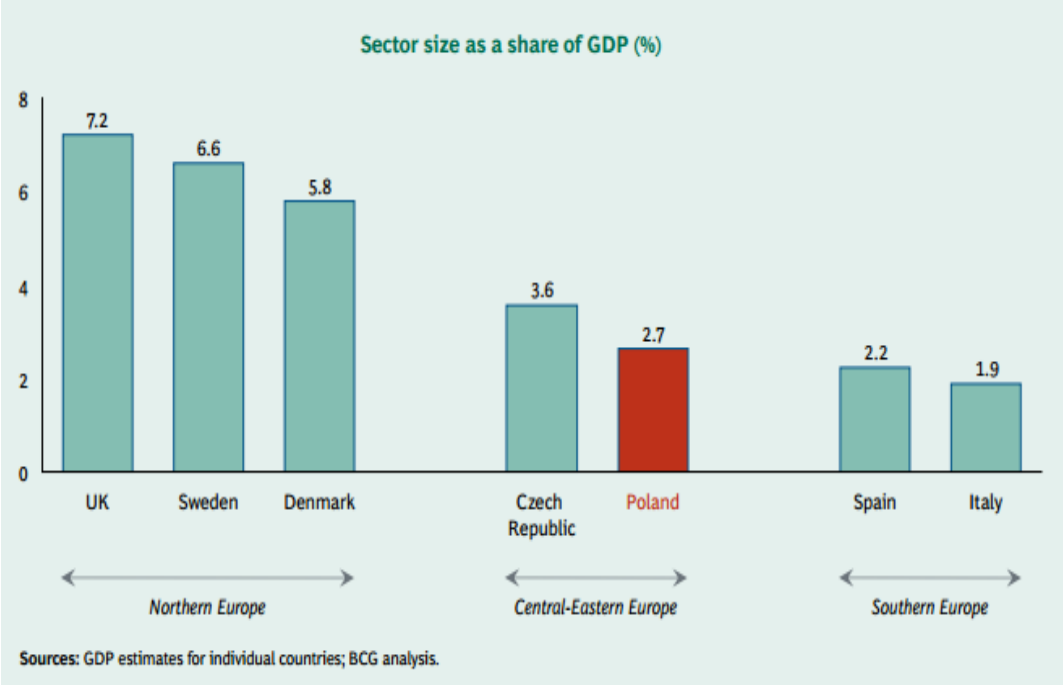


Source: (Republic of Poland Ministry of Treasury Public Relations Office, 2013)

Poland is trying to catch up with the western European economies in terms of wealth with it's high GDP growth rate. Becoming a member of the European Union in 2004 gave boost to the country. Besides the funds that it's getting from the EU have made this country a

really attractive place for foreign companies to invest (Republic of Poland, Ministry of Treasury, Public Relations Office, 2013). There still exist some barriers in the development of the economy such as weaknesses in rail and road infrastructure, lower labor force activity rate than the EU average but that does not really poses the same threat to e-commerce as the other sectors.

Figure 13 - Size of the Internet economy as a proportion of GDP - international comparison



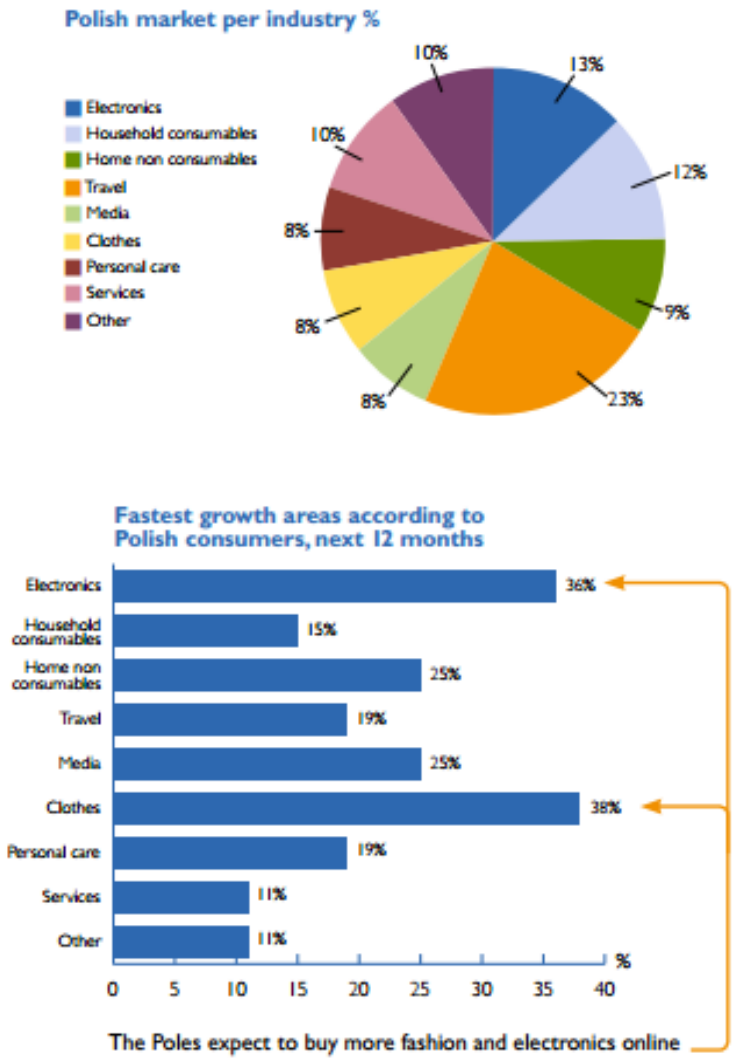
Source: (The Boston Consulting Group, 2011, p. 13)

As in proportion, the share of the internet economy in the GDP (see Figure 13) in Poland is still not very competitive when it's compared to the western EU member states like UK, Sweden or Denmark. But according to BCG's report (The Boston Consulting Group, 2011) this just reflects part of the influence on the economy. As the number of people in the country using internet is growing day by day constantly, internet is possessing a bigger role in people's lives and it directly affects the acts of people which also means consumer behaviors are changing. People are searching for product reviews, interchanging experiences, communicate with each and even call for protests or campaigns online now.

In 2012 it is estimated that the e-commerce market grew by 23% in Poland and reached PLN 21.5 bln and it is expected that it will reach to a point that it will become PLN 26.1 bln in the year 2013 (Republic of Poland Ministry of Treasury, 2013).

1.10 Consumer Habits

Figure 14 - Traded goods as sectors in e-commerce

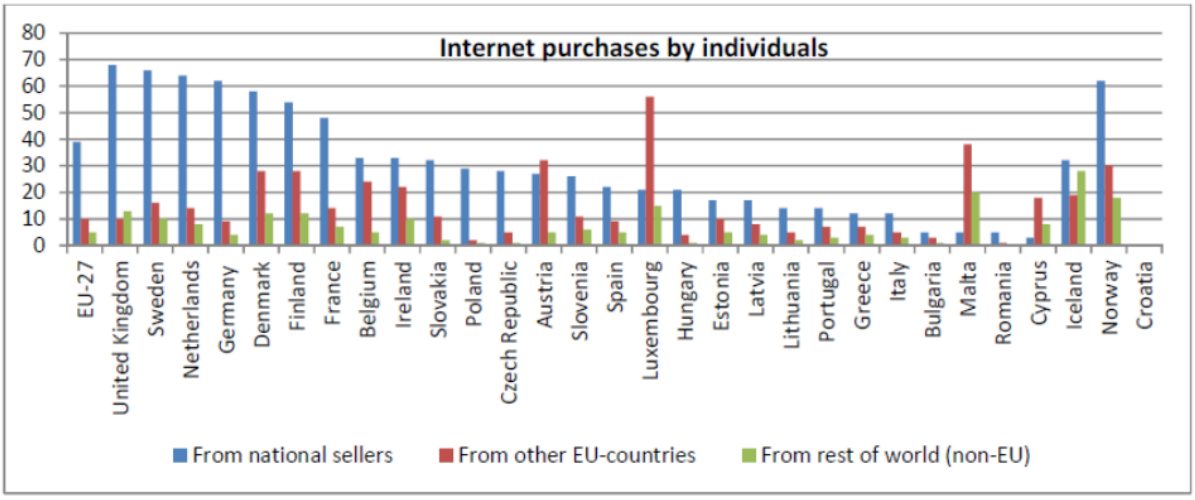


Source: (DIBS Payment Systems, 2012)

In 2011, 3.1% of the retail sales were generated online, 74% of the internet users made purchases online and 20 % of the population purchased something over internet in the last 3 months period when the research was conducted in 2011 (Jones Lang LaSalle, 2012).

The tendency is to buy mostly the travel services online like hostel, hotel, motel bookings as well as travel ticket purchases but the interest on electronics and clothes is growing really fast as well.

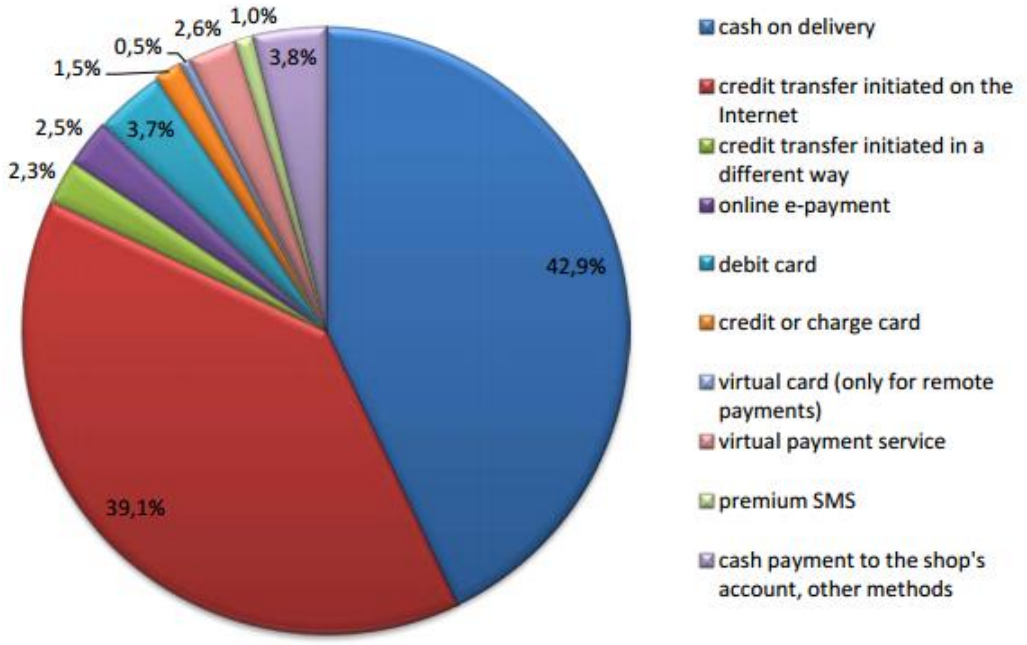
Figure 15 - Internet purchases by individuals in 2011



Source: (Luca Alessandro Remotti, 2012, p. 18)

Polish consumers prefer to make purchases domestically rather than buying things from the other EU countries or non EU countries.

Figure 16 - Share of payment methods in total number of purchase payments on the Internet



Note: The numbers may not add due to rounding.

Source: (Górka, 2012, p. 12)

Another interesting detail that draws attention is that, although Polish market has a variety of payment methods, two of them have dominated the online purchases. Cash on delivery and credit transfer initiated on internet account for 82 percent of all purchases made online.

3. TURKEY

1.11 Internet in Turkey

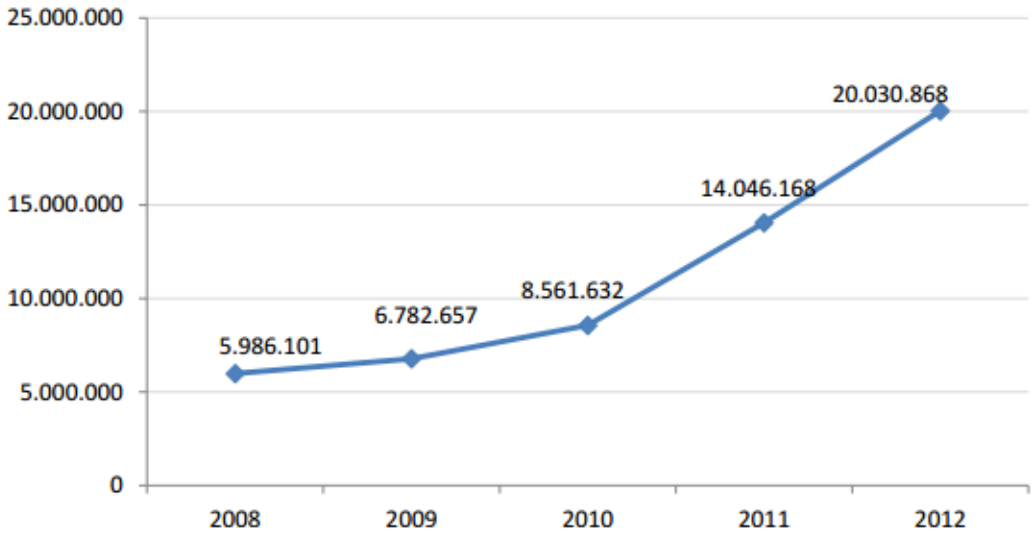
The Internet was first used on the 12th of April in 1993 in METU, which is amongst one of the top technical universities in Turkey based in Ankara, through a leased line over Washington NSFNET. Afterwards some other universities started to use it as well, but not for commercial purposes at first, just for academic purposes and then, slowly in years it started to commercialize in Turkey as well as worldwide but in the first years due to the underdeveloped infrastructure the internet could not develop rapidly in the country.

Since 1998, in order to widespread the usage of Internet, to introduce it to masses and create awareness amongst the people, the two weeks covering the 12th of April are celebrated as Internet week in Turkey. This year (2013) the 20th anniversary of the first usage of the Internet was celebrated throughout the country.

For this occasion, The Chamber of Computer Engineers released a report featuring the development of the Internet in Turkey. According to this report, 47.2% of the residences in Turkey are able to connect to the Internet now, looking the other way around, more than half of the residences in Turkey still do not have access to the Internet. Maybe at this point, it is important to mention that those numbers include the residences in rural areas and villages as well, not just cities. Another interesting fact is that we can see the traces of the Turkish paternalistic life style even in internet usage habits. 59% of the Men aged between 16-24 uses internet while only 38.5% of the women at the same age range uses internet. (Turkish Chamber of Computer Engineers, 2013)

Even though in their point of view the situation in Turkey is not that good, there is no reason to be pessimistic, especially when we look at the numbers of the broadband internet subscribers through the last years (see Figure 17), we can easily say that the interest is increasing greatly. In the last 5 years, the total number of the subscribers increased by 300 percent. This is of course, as a result of the investments made by the companies especially in the infrastructure as it was not even possible to get xDSL, cable or fiber internet in most of the districts even in big and developed cities.

Figure 17 - Number of broadband internet subscribers in Turkey



Source: (Bilgi Teknolojileri ve İletişim Kurumu(ICTA), 2013, p. 26)

One another impact was the development of smartphones, and widespread usage of them. Even though Turkey still haven't got the so called 4G infrastructure yet, still the number of mobile internet subscribers reached 10.252.370 people with a 108,9% annual increase (Bilgi Teknolojileri ve İletişim Kurumu(ICTA), 2013).

In the light of such information, we can say that even though once it was not that easy to get into internet in Turkey, that's not the case anymore, and the interest is just getting bigger and bigger every year.

1.12 Development of the Internet in Turkey

After the first introduction of Internet in Ankara it acted as the only backbone of the internet and stayed as the only point that connects Turkey to outer world for a long time, with the capacity of 64 kbps and then the other universities started to connect one by one. Ege

University in 1994, Bilkent in 1995, Boğaziçi University in 1995 and İstanbul Technical University in 1996 (Parlak, 2005, p. 30).

In 1995 TURK TELEKOM, which is the company that holds the right to build transmission lines and to own them by the law legislated on 10.06.1994 gave the opportunity to the consortium of TURNET to supply and commercialize internet in Turkey.

Bilkent University professor Mustafa Akgül criticized this move as it was more likely a move made within the business perspective rather than a development move which sabotaged the progress of internet development in Turkey even though he admits that it was the right moment to commercialize the internet when it was compared to foreign examples. His main critic was based on the idea that the Turk Telekom not even tried to use the know-how of TÜBİTAK and METU collaboration (Akgül, 1997).

Time proved that he was right and eventually in 1999 the commercial infrastructure of internet has underwent big changes. TURNET left his place to TTNET, a new entity.

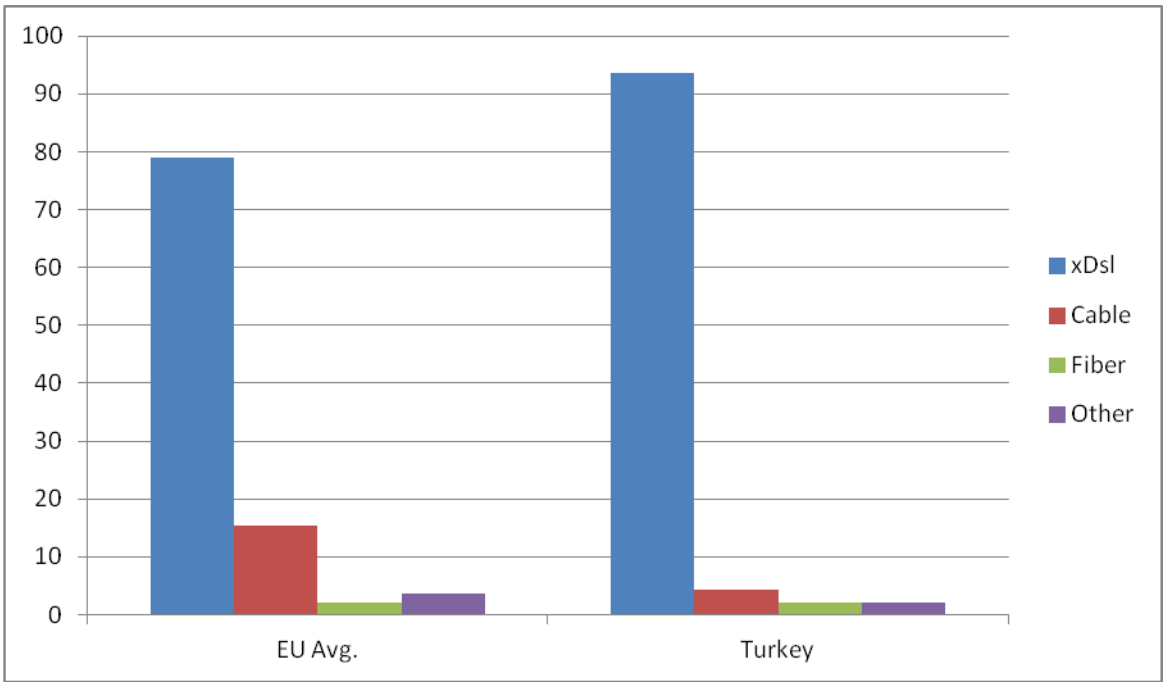
In the meantime, while the commercialization of internet was not really progressing really well, TÜBİTAK (The Scientific and Technological Research Council of Turkey) founded The Turkish Academic Network and Information Centre (ULAKBIM) in 1996 which acts as a R&D facility institute of theirs. ULAKBIM's main objectives have been set as operating a high speed computer network enabling interaction within the institutional elements of the national innovation system, and providing information technology support and information services to help scientific production. ULAKBIM aims at providing technological facilities such as computer networks, information technology support, information and document delivery services, satisfy the information requirements of universities and research institutions, and to increase the efficiency and productivity of their end users. ULAKBIM consists of National Academic Network (ULAKNET), a unit, which undertakes the task of formation and operation of research and educational network infrastructure in Turkey, and Cahit Arf Information Center, which provides information and documents supply services nationwide (Tubitak Ulakbim, n.d.).

From the beginning of the 2000's, the two main backbones of internet which provides access to the outer world started to be used. TTNET's backbone which is used for commercial users, and ULAKNET which is basically used for academic institutions. But besides those

two main ones, we can also count two more. One is which, the companies made agreements with TTNET acting as isps[3] which have direct lines and some academic institutions which have direct lines as well as ULAKNET. (Republic of Turkey Ministry of National Education, n.d.)

As for today, TTNET is the main broadband supplier in Turkey. When we compare with the EU countries the type of broadband internet access (the mobile solutions putting aside), the competition lacked for a long time, Turkey is still mostly dependent on xDSL[4] and lacks diversification of services of internet suppliers.

Figure 18 - Broadband internet access types (%)



Source: (TOBB Turkey Telecommunications Council , 2011, p. 5)

[3] ISP (Internet Service Provider): Is any company providing access to the internet.

[4] xDSL: Refers to any kind of DSL (Digital Subscriber Line) based internet connection such as ADSL,VDSL,HDSL etc.

1.13 E-commerce in Turkey

E-commerce activities started in 1995 with a pilot project of IGEME in the country, in 1997 UNCTAD recognized this institution as Trade Point Ankara (Altun, 2005). In 1997 BTYK decided to give the coordination duty of the E-commerce actions to DTM and secretariat duty to TUBITAK (Republic of Turkey Ministry of Economy, n.d.). As a result of this assignment ETKK which held it's first meeting in 1999 where the first steps of a regular and widely participated development plans were set.

Another milestone in the development process of e-commerce in the country was the "e-Turkey Action Plan" which came into action in 2001, which was planned in accordance to the "e-Europe Action Plan" agreed by the European Union candidate countries at that time and after that in 2004 the acceptance of the "E-signature Law" which legalized the identity authentication process on electronic basis online (Günsoy, 2013, p. 17).

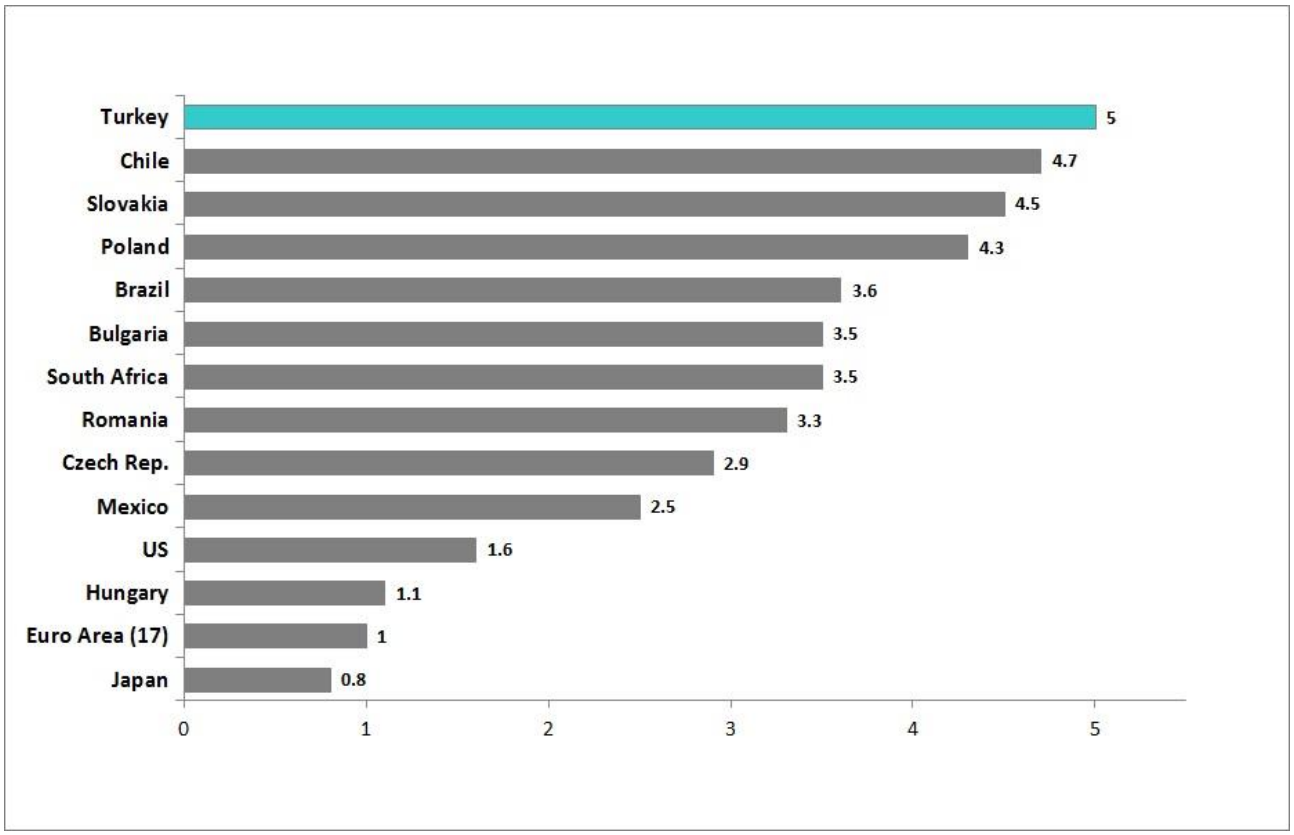
It was not until the beginning of the new millennium that e-commerce started to get into the agenda of the entrepreneurs' and companies' in Turkey. This also can be related to the infrastructure changes started in 1999, where internet user numbers started to increase after that time. With the increased number of people using internet, companies started to get into the e-commerce to attract more potential customers. Another pioneers in e-commerce were the banks getting into business and starting to open up their online banking systems (Abdullah Uzun, 2008).

The latest news regarding the e-commerce framework in Turkey is that a new law just concentrating on the regulation of e-commerce is expected to be agreed in the following months according to the Under Secretariat of the Prime Ministry for Foreign Trade Mr. Ziya Altunyaldiz. (Republic of Turkey Ministry of Customs and Trade, 2013)

1.14 Turkish Economy and E-commerce

Turkey became one of the rising stars of the world economy in the last 15 years of time. With a lot of structural reforms came into action within the framework and insight of the EU, which Turkey wants to become a member sometime soon, led to a bright decade in economy. In the last 10 years Turkey overpassed most of the emerging countries in average annual real GDP growth rate of 5% (see Figure 19).

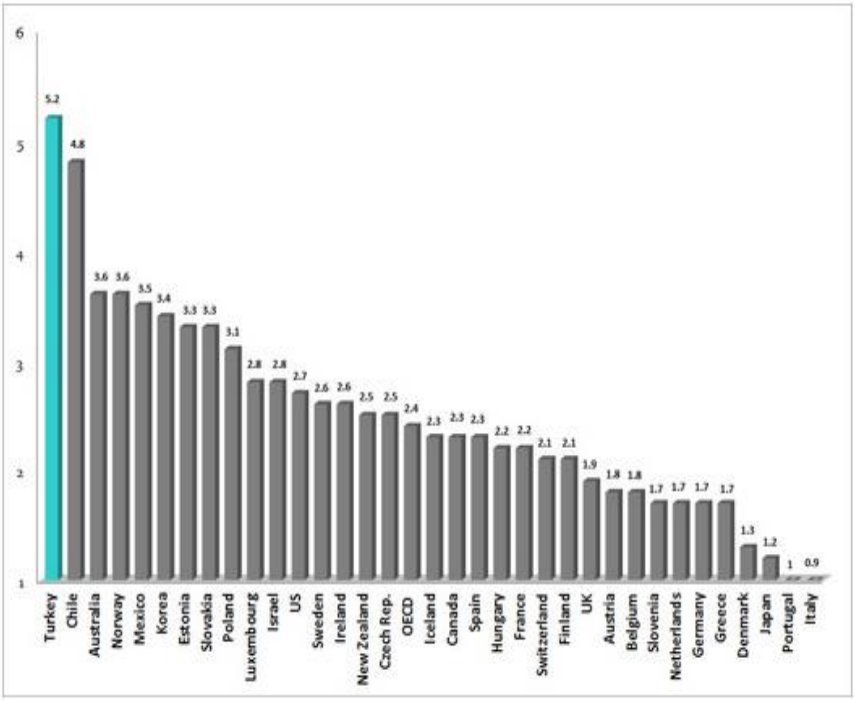
Figure 19 - Average Annual Real GDP Growth (%) 2002-2012



Source: (The Republic of Turkey Prime Ministry Investment Support and Promotion Agency, 2013)

This impressive progress in economy is expected to continue even with a slightly better average in real GDP growth wit a rate of 5.2% between 2012-2017. See Figure 19

Figure 20- Annual average real gdp [GDP] growth (%) forecast in OECD countries 2012-2017

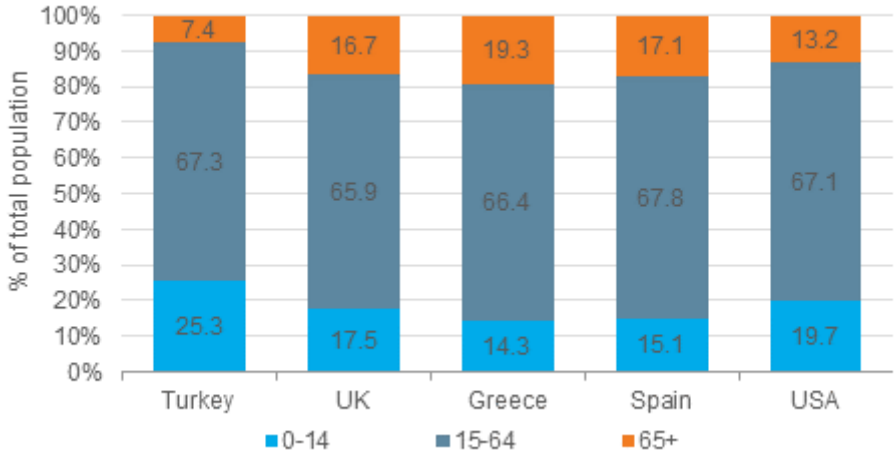


Source: (The Republic of Turkey Prime Ministry Investment Support and Promotion Agency, 2013)

In the light of the data presented above it may be expected that the country would have the same success in e-commerce as well, but when it is compared to the developed countries it is obvious that Turkey is still behind the most developed economies as far as the internet penetration rates are concerned and unfortunately it directly affects the e-commerce economy. But besides lacking infrastructure and relatively less amount on investments made on research & developments, the open minded young population still keeps the potential high and encourages to grow faster (ÖZEL, 2006, p. 85) .

The effect of the young population on usage of the internet can't be neglected and in comparison to highly developed countries Turkey really has a young population (see Figure 21).

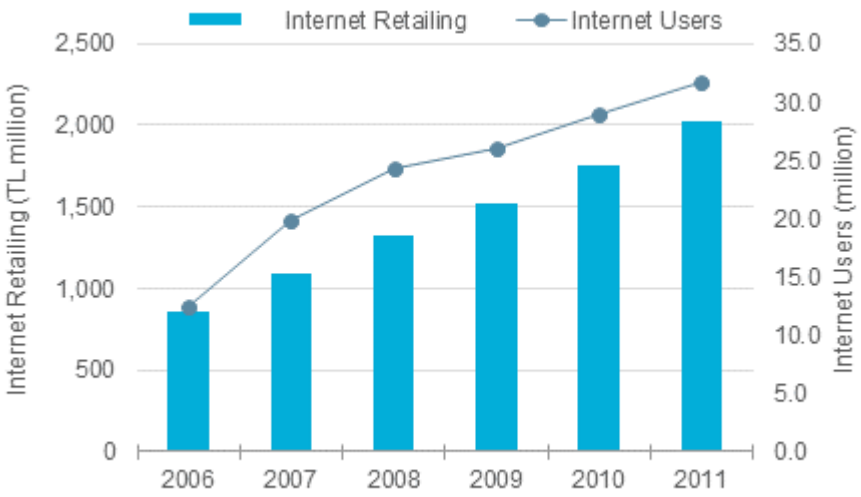
Figure 21 - Population by Age Bracket



Source: (Hodgson, 2012)

And the relation between the internet penetration and online retail volume can be better understood by looking at Figure 22. It is obvious that the more the people use internet the more retail sales are accomplished. An almost linear relationship between the facts can be observed between the years 2006 and 2011.

Figure 22 - Turkey's Internet Users and Internet Retailing Value: 2006-2011 (sales figures don't include the sales taxes)



Source: (Hodgson, 2012)

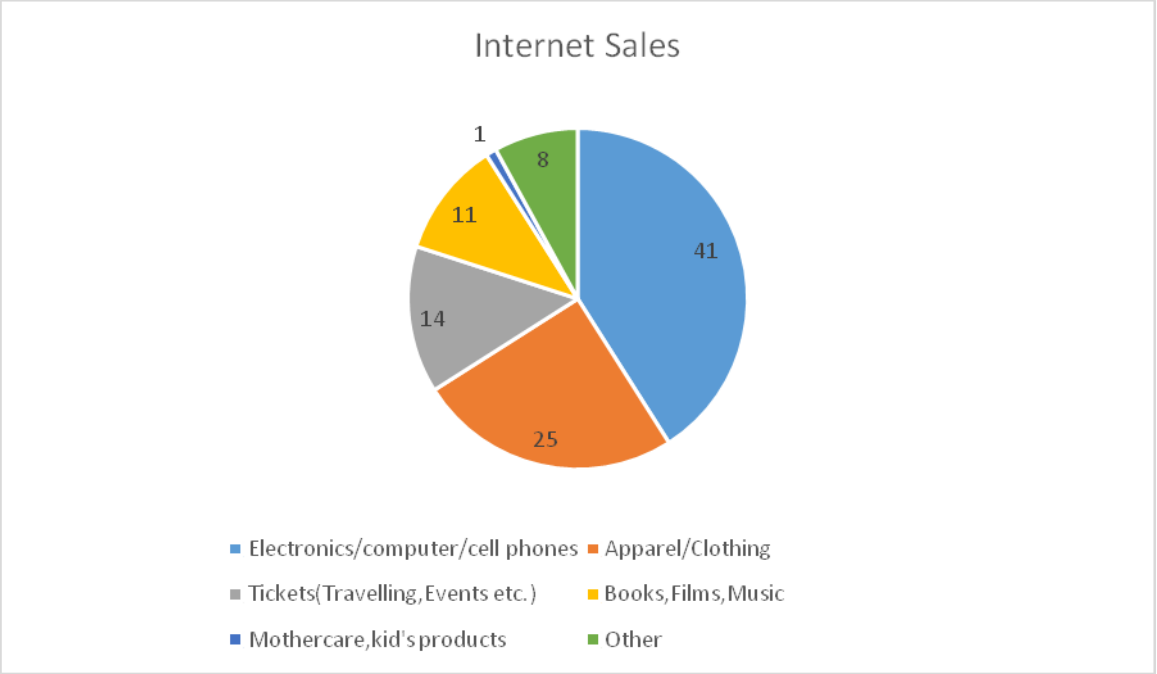
Even though there is an obvious interest in e-commerce lately, the contribution of e-commerce to the GDP is still too less with being just 0.9% whereas the world average is 3.4%. Despite leading the emerging countries in average annual real GDP growth rate, it stands in the bottom in terms of the contribution of Internet, and this situation is similar to countries like Morocco, Nigeria and Russia (BENMAYOR, 2012)

1.15 Consumer Habits

Turkish people are still being more conservative against the idea of purchasing products online as just only 9.0% of the internet users' main purpose is to buy or sell something over the internet. And when we look to those 9.0% of the user's time of their last transactions, 5.5% of them occurred in the last 3 months, 2.2% between the last 3 months to 1 year period and 1.3% of them occurred sometime earlier. (Seden Algür, 2011, p. 3669)

One consistent choice among those users is that they choose to pay with credit cards. This kind of payment method is totally dominating the market with a rate of 71% whereas 8 % comes to the option of "pay on delivery" and 5% with money transfer. (Seden Algür, 2011, p. 3670)

Figure 23 - Traded goods as sectors in e-commerce



Source: (Eticaret Mag, 2011)

According to Eticaret Mag's survey (Eticaret Mag, 2011) Turkish consumers tend to buy mainly electronic items and related products over the internet as they find it more profitable than the other product categories. Second come different types of the tickets because of their convenience.

The same survey shows also that the Turkish consumers look for the bargain prices first over all the other aspects, then comes the reliability of the sites.

4. CONCLUSION

First of all, it is important to underline the fact that both Poland and Turkey are emerging economies, which really progressed impressively in the last decade. We should recognize the fact that both countries suffered a lot from the underdeveloped infrastructure while trying to boost their economies, so no wonder they're investing heavily in railroads, motorways and communication networks to improve their competitive position on the international marketplace.

Privatization of the institutions and liberalization of the domestic market accompanied by the decreasing role of government-owned monopolistic internet suppliers and by the emergence of much more competitive market environment enhanced the internet penetration rates in both countries, nevertheless they still could not reach the level of the developed market economies. In Polish case 2008 economic crisis slowed down this process a bit while before it was going really good.

One of the main differences amongst the e-commerce drivers between the two countries is that, after becoming a full member of the European Union in 2004, Poland got the single market advantage which enabled the country to become the biggest B2C e-commerce market in the EU in 2013. Because of the good geographical location in the region, Poland has a natural logistics advantage which makes it easier and faster to handle the deliveries. All those factors coming together made Poland the fastest growing market in the EU.

On the other hand, doing e-commerce business in Turkey is much harder because of the high taxes and strict customs policies both for importing and exporting purposes. These factors affect directly one of the most important advantages of e-commerce: lower prices. In addition to that, high international shipping costs also force e-commerce market in Turkey to be more domestic oriented. Because of these obstacles, the internet market volume is too low in the country when it is compared to other countries, especially if we take into consideration the contribution of e-commerce to the country's GDP. But nonetheless it is developing at a quick pace and becoming bigger like the Turkish economy itself. Strict rules regulating the e-commerce sector are another obstacle in

Turkey. The governmental bodies and institutions have made the attempts recently to overcome regulatory obstacles and to make Turkish market environment more free and competitive.

Turkey is a more credit card penetrated country when it is compared to Poland and it shows it's traces in payment options preferred during the online purchases. Polish people tend to pay either with cash on delivery or with money or credit transfer while almost three quarters of the Turkish consumers choose to pay with their credit cards.

When it comes to the products and services purchased online within the two countries, there are some similarities as well as some differences in consumer behaviors. In both countries, people choose to buy online mostly electronic devices and gadgets. Travel services and tickets are another important categories that people often buy online both in Poland and Turkey. But the range of products that people choose to buy online is more diversified in Poland than in Turkey. We can relate this to the smaller number of consumers using online shops in proportion to those that do not. In Poland this percentage is much bigger than in Turkey. Nearly 3 out of 4 internet users purchased something online in Poland, while in Turkey this figure is below 10 percent.

5. Abbreviations

E-Commerce	Electronic Commerce
PC	Personal Computer
ARPANET	Advanced Research Projects Agency Network
vBNS	Very High Speed Backbone Network Service
www	World Wide Web
WTO	World Trade Organization
CD	Compact Disk
SSL	Secure Sockets Layer
B2B	Business To Business
METU	Middle East Technical University
Kbit	Kilobit
ITCA	Information And Communications Authority Community(TURKEY)
4G	Fourth Generation of Mobile Phone Mobile Communication Technology
Tv	Television
B2c	Business to Customer
B2B	Business to Business
C2c	Customer to Customer
P2p	Peer to Peer

CEO	Chief Executive Officer
BCG	Boston Consulting Group
EU	European Union
EDI	Electronic Data Interchange
Kbps	Kilo bit per second
TUBITAK	The Scientific And Technological Research council of Turkey
ULAKBIM	Turkish Academic Network and Information Center
Isp	Internet service provider
Avg	Average
TOBB	The Union of Chambers and commodity Exchanges of Turkey
CRM	Customer Relationship Management
QR Code	Quick Response Code
IGEME	Export Promotion Center of Turkey
BTYK	The Supreme Council of Science And Technology of Turkey
DTM	Under Secretariat of Foreign Trade of Republic of Turkey
ETKK	Electronic Commerce Coordination Committee
OTP	One Time Password
EU	European Union

6. List of Figures

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