E-commerce Organizations and Turkey

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Abstract

Rapid development of communication technologies in today's world brings men and ideas together while also creating new economic sectors. In this regard, the number of e-commerce organizations is rapidly increasing due to low startup capital and operational costs and as they enable access to large groups of people without any time and place restrictions. This paper describes e-commerce organizations, investigating their development processes and existing structures both on the global and local scale. One of the most important factors in the development of e-commerce is the widespread use of information technologies in the society. Individuals' purchasing power of goods and services offered on the internet is yet another factor. Obviously, e-commerce spread in developed countries for this reason. In Turkey, there is an increase in both individual use of information technologies and the number of e-commerce entrepreneurs in recent years. Although the individuals’ internet purchasing power is relatively low, there has been an apparent increase over the years.

Keywords: e-commerce, e-commerce organizations, Turkey, e-commerce statistics.

1. Introduction

The rapid development of information and communication technologies in today's world raise economic opportunities, increase participation, and offer new educational opportunities, thus serve as an important factor in the restructuring of people, organizations and the society; and people, organizations and ideas link to one another more often. In this regard, organizations that are required to be flexible and to rapidly adapt to change under dynamic and uncertain environmental conditions developed disorganized structures based on teamwork where responsibility and power were assigned. The development of communication technologies supported the development of such disorganized structures by coordinating between employees working in distinct geographical regions (Ahuca-Karley 1998:1). The virtual organization is the entirety of units that are geographically distributed, linked to one another in a horizontal hierarchical structure through dynamic coordination relationships and electronic modes of communication, and that are functionally and/or culturally distinct from one another. Although it is a disorganized structure, the organizations is an entirety thanks to the common identity in the minds of its members, customers and other components. In other words, the virtual organization is a web “with no walls” based on cooperation formed by people when they were doing their tasks (DeSanctis –Monge 1998:1). Information and communication technologies (ICT) that have become widespread in the 1990’s are the main components behind the very existence of virtual organizations. So, using internet environments, online services and forums, it has become easier to find groups with common interests in the global environment. With the use of electronic mail and personal digital assistants (PDAs), members of a virtual organization exchange information accurately and rapidly eliminating time and space barriers. Yet another factor facilitating the functioning of virtual organizations is their existence in a less formal and bureaucratic environment. This is because the appearance of legal regulations are particularly slow in internet commerce, and there are no common regulations on the functioning of virtual organizations (Askhanasy-Kasper 2007). So, one can conclude that the basic features of virtual organizations include flexibility, horizontal hierarchy, goal orientation, dynamism, customer orientation, loose organizational borders, and sharing of information.
2. Ecommerce Organizations

Generally speaking, commerce is the distribution of goods from one place to another place where they are demanded due to production in fewer quantities or scarcity. The concept of commerce is a comprehensive and sophisticated structure encompassing all functions of sales and purchase operations. It includes all people, organizations and establishments related with the distribution of goods; such as railway, land and marine transportation, merchants, banks, insurance, companies, commissioners, wholesalers, retailers, exchanges, distributors, brokers and service providers. E-commerce is a systematic and organized web created to establish the exchange of goods between the producer and the consumer. The web establishes a direct reciprocal link between the producer and the consumer and covers all activities that will allow for the distribution and transfer of goods in this regard in an uninterrupted, continuous and free manner. The development of internet in the 1990’s is the basic underlying cause of the emergence of e-commerce (Rayudu 2010:8).

E-commerce can be defined as follows (Tassabehji 2003:5): Conduct of business transactions via the means of communication especially the internet, handling of the sale and purchase operations of products, services and information via the internet using computers, trading in the electronic environment, using electronic tools to conduct financial transactions.

From an e-commerce communication perspective, it is the exchange of information, products or services and the effecting of payment using electronic tools. From a business process perspective, it is the use of technology for commercial work flow and for automated operations. From a service perspective, it is the reduction of costs and increase the quality and speed of services (Chaffey 2007: 8-9).

The concept of e-commerce was first used by IBM in 1997. As a matter of fact, credit cards are in circulation since 1960’s, ATM’s are being used since 1980’s, banks are not using paper for money transfers for many years, and checks are rarely used in the day-to-day operations of large companies, exchange commissioners and public administration. Then, what is the innovation in the concept of e-commerce? The principal focus of the concept of e-commerce is the participation of small enterprises in business operations by getting involved with the internet. In this regard, e-business is the use of internet by an enterprise for the management of all internal and external data including purchasing, selling, production and operations. In this case, e-commerce is a branch and a sector of e-business. In other words, it is trading in any sector by establishing links between buyers and sellers using electronic tools, and is the commercial part of e-business (Rayudu 2010:10).

To this end, the differences between e-business and e-commerce can be summarized as follows: e-business uses, in the micro environment, the means of electronic communication (internal web-external web) in business management, restructuring, information management, change management, risk management and security, supply chain management, human resources management, sales and marketing, and strategic management. E-commerce, on the other hand, uses, in the macro environment, legal and public policies, telecommunication infrastructure and technology in the context of society and digital economy (Tassabehji 2003:7).

As a result, e-commerce is the use of electronic communication means for the sale and purchase, advertisement, distribution and payment of goods and services (The International Trade Administration(ITA)). Today, e-commerce has become a fundamental power that supports economic growth for developing countries as well as developed countries. The increased use of internet and low costs of marketing online as well as easier online payments in the global scale allow large, medium and small economic enterprises to widen their markets through e-commerce (ITA 2009 Report).

The types of e-commerce are as follows: B2B is the e-commerce model from business to business. In other words, it is a form of e-commerce where a business trades within itself or businesses trade with other businesses. B2B platforms where buyers and sellers do operations including quotation, collecting offers and where products and services are described are e-commerce portals. Product catalogue search, ordering and payment is made in the electronic environment. Examples include www.alibaba.com, www.compass.com, www.tradeturkey.com, Euroffice, BP, and EC21. B2C is the form of e-commerce from business to the consumer. It is the most common form of e-commerce. In this model, businesses offer their own products or services in their own web sites or in shopping portals where many businesses are grouped. This is the most common model for retail sales. Examples include Koç-
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Taş, Migros, TrendYol, Morhipo, Amazon, and Unilever. B2G is the form of e-commerce between the business and the government agency within the scope of e-government practices. This model supports operations including tender announcements or payment of corporate taxes. C2C is the form of e-commerce from the consumer to the consumer. The consumers exhibit their own products in their websites, and the buyers are again the consumers. Examples include www.sahibinden.com, www.gittigidiyor.com, eBay, and Bebo. Generally speaking, this category includes the trading of second hand items, house rentals and vehicle sales and purchases. G2C, in other words e-government, is used for information about the regulations that relate to the citizens' lives such as services including passport applications, and insurance premium and tax payments. G2G is the model whereby intra-governmental exchange of information and services are carried out.

The strategy of e-commerce organizations is to struggle in order to get the advantages. The more advantaged wins, whereas the less advantaged loses the competition. The strategy goal of an e-commerce organization is to create new advantages, maintain the existing ones and reduce the disadvantages. Therefore, the strategy is offering better opportunities to the customer and keeps a distance with the competitors while doing this. Its advantages are (Boar 1999 : 3-6):

1. Low-Cost Advantage: Buying products and services at cheaper prices.
2. Differentiation Advantage: Offering products and services that are different and desired in their features and functions.
3. Focus Advantage: Clearly meeting the needs of a certain customer
4. Order fulfilment advantage: High level realization of trading operations
5. Maneuvering Advantage: Ability to adapt to changes quicker than other methods. Being able to maneuver also strengthens other types of advantages.

As a result, someone who is into e-commerce will get in front of the competitors if it is cheaper, more unique, more focused and quicker or more adaptive. A customer may need many things and something may be needed by many customers. Various products or services may fulfill a need and a product or service can fulfill various needs. Therefore, the strategy of the e-commerce organization for its functioning process should aim being quicker, consistent, skillful, creative, error-free, simple, high quality, learning, low cost, measurable, efficient, functional, customized, sensitive, customer satisfactory, scalable, non-conflicting, cooperative, and completion-oriented.

In 2013, over one billion e-commerce transactions were made, with a total B2C sale and purchase of 1.221 trillion dollars. The share of North America, Asia-Pacific and Western Europe is 90.1% globally. B2C e-commerce is increasingly growing and increased by 17.1% in 2013. Regionally, North America ranks first with a trading volume of 395.28 billion dollars. India and China see raised sales (eMarketer 2014 31.01.2014 Worlwide B2C . Worldwide B2C Ecommerce: 2013 Forecast and Comparative Estimates).

The positive economic, social recruitment effects of e-commerce are:

- Since e-commerce transactions over the public web electronic increase communication, businesses and consumers will do commercial transactions cheaper and easier.
- Many businesses are able to market products and open a store without any physical investment.
- Time and space barriers are eliminated in the global environment. There is a 24-hour shopping environment without any regional borders.
Since the time between product orders and deliveries is minimized, inventory costs are lower. Documents are produced in the electronic environment and the cost of paperwork is eliminated.

In many internet business models, cost items including inventory, lease, insurance, tax, electricity is lower compared with non-internet businesses.

E-commerce changes the structure of goods and service markets, resulting in new products, new marketing and distribution techniques, and the changes in market demand are quickly addressed.

The costs of transaction and transportation are reduced for consumers. The consumers are able to do shopping from virtual stores everywhere and without spending any time.

Measuring consumer satisfaction and new workforce profiles are some of the innovations of e-commerce.

Organizations transform, the number of traditional executives is reduced, specialization increases, hierarchy gets smaller in the horizontal and vertical directions but its efficiency increases.

E-commerce made it easy to share data between the businesses, the cooperation of employees, their coordination, and the evaluation of customer recommendations and demands.

Although e-commerce is an economic phenomenon, it influences social and political life, resulting in the review of social policies.

Today, e-commerce has become a fundamental power that supports economic growth for developing countries as well as developed countries. The increased use of internet and low costs of marketing online as well as easier online payments in the global scale allow large, medium and small economic enterprises to widen their markets through e-commerce (ITA 2009 Report).

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Business models used in e-commerce are: 1. Full-fledged internet; The buyer gets product or service information online, makes buying decision online and makes payment online. 2. Buy online and pay at the door; The buying decision for the product or service is made online but the payment is made upon product delivery. 3. Find online, finish traditionally; the product or service is chosen from internet lists and then the buyer and the seller come together in traditional ways.

3. Global e-commerce
Since the most basic factor in the spread of e-commerce is, as described above, internet usage, global and regional internet usage trends are: Asia (44.8%-1.076.7 millions), Europe (21.5%-518.5 millions), North America (11.4%-273.8 millions), Latin America (10.4%-254.9 millions), Africa (7.0%-167.3 millions), Middle East (3.7%-90.0 millions), Oceania (1.0%-24.3 millions). Asia ranks first in the number of internet users (Internet World Stats, June 30 2012).

In this regard, the number of global e-commerce buyers is: China (270.9 millions), USA (156.1 millions), Japan (75.6 millions), Germany (43.3 millions), the United Kingdom (36.5 millions), France (28.1 millions), Brazil (26.7 millions), Russia (26.2 millions), India (24.6 millions), and South Korea (24.4 millions) (2013). Global e-commerce sales amounts by country are as follows (in billion dollars): USA (384.80), China (181.62), The United Kingdom (141.53), Japan (140.35), and Germany (53.00) (www.rishabhsoftware.com 2013).

The European region may be summarized as follows with regards e-commerce data: Europe has a population of 820 millions, with 529 million internet users (64%), and 250 million people (48%) do shopping online. The average online shopping 1.243 € per person per annum. The United Kingdom and Germany make up 61% of it. There are 550.000 e-commerce entrepreneurs, with an annual parcel dispatches of 3.5 billion. Turkey grew by 75% in European countries in 2012 in terms of e-commerce volume. Greece (61%), Ukraine (41%), Hungary (35%), and Romania (33%) are also growing countries (ecommerce-europe-eu 2013). Generally speaking, it is seen that online buying in Europe remained stable between 2008 (33%) and 2012 (37%) (Eurostat 2013).

4. E-commerce in Turkey and organizations

Although the e-commerce market is a new phenomenon for Turkey, there has been significant grow since 1998 (starting date of hepsiburda.com, idefix and Migros and Varan, which have moved into the internet from their traditional markets). Start of virtual cards since 2000 and the start of 3d Secure since 2002 were also important factors in the development of e-commerce (eticaret mag 06.02.2013).

Table 1: Information technologies usage among Turkish households (ages 16-74)(TÜİK 2004-2013)

As seen in the Table, computer and internet usage among Turkish households is constantly growing.
As seen in the Table, Turkish households use mobile phones most, followed by traditional phones and desktop computers. The use of traditional phones gradually reduced and the use of tablet computers, netbooks, internet TVs increased especially in 2013.

Table 3: Individual Internet Usage in Turkey by Age (TÜİK 2009-2013)

As seen in the Table, the internet usage of Turkish individuals in the age range 16-24 is the highest, followed by the age range 25-34, decreasing in older ages. From here, one can conclude that internet usage is more popular among younger generations and that age is an important factor in internet usage.

Table 4: Individual Internet Usage in Turkey by Education (TÜİK 2009-2013)

As seen in the Table, the internet usage of Turkish individuals is higher among college graduates. A gradually decreasing trend as the education level falls shows that education is an important factor in internet usage.

The motives behind using the internet are as follows based on the “Individual Usage of Personal Internet 2013” data of the Turkish Statistical Agency: reading online news, papers or magazines, 75.6; joining social groups over the internet, 73.2; sending/receiving emails, 62.5; searching for information about goods and services, 59.9; searching for information about health, 59.6; telephone conversations over the internet, 55.1; searching for information about schools and courses, 45.9; getting information about a certain topic, 32.6; sharing opinions
through web sites, 28,7; travelling or accommodation, 26,6; Internet Banking, 24,8; subscription to receive regular information, 21,3; downloading software (except for games), 19,1; seeking and applying for jobs, 12,9; voting in social or political elections, 12,8; receiving online education about a certain topic, 8,4; joining to professional groups, 4,2; and selling goods and services, 9,3. Obviously, the individuals are using the internet for various purposes in Turkey. However, from the e-commerce perspective, the rate of goods and service sales is lower than other forms of usage, but the rate of getting information about goods and services is high. In this case, it can be suggested that individuals are hesitant about using the internet to buy goods and services. The factors that hold Turkish individuals back from buying online are as follows, based on TÜİK’s 2010 data: Not having the need, 78,6; choosing to see and buy the product, 24,0; confidentiality concerns, 17,4; security concerns, 27,2; lack of sufficient information for buying online, 5,4; lack of trust about product deliveries, returns, complaints and problem-solving, 5,8; lack of a credit card or a virtual card for buying online, 2,6; and low internet connectivity speeds, 0,3. Obviously, the majority of individuals choose to visit and do their shopping in traditional stores. Confidentiality and security concerns are also other factors restricting internet shopping.

Again, based on TÜİK’s 2010 data, the listing of products and services ordered or purchased online is as follows: Garments and sports materials, 4,3; Electronic tools, 23,8; Books/Magazines, 20,3; Household appliances, (furniture, toys, home appliances), 19,3; Travel activities, 15,2; Daily food (including flowers, cosmetics, tobacco), 13,3; Computers and other equipment, 10,7; Medicine, 8,6; Tickets for sports and cultural activities, 7,8; accommodation, 5,1; e-learning tools, 3,1; Telecommunication services, 2,5; Game software, upgrades, 2,4; other computer software and upgrades, 2,2; Buying stock/financial services/insurance policies, 1,6. Obviously, individuals spend most for electronics tools, books, magazines, home appliances, and travel activities.

Based on BKM’s 2013 data, the distribution of card payments online is as follows by years:

<table>
<thead>
<tr>
<th>Years</th>
<th>Domestic/international usage of local cards</th>
<th>Total amount of transactions (millions TL)</th>
<th>Number of domestic/international usage of local cards</th>
<th>Total amount of transactions (millions TL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>61.006.068</td>
<td>8.000,43</td>
<td>64.560.748</td>
<td>9.088,68</td>
</tr>
<tr>
<td>2009</td>
<td>67.311.588</td>
<td>8.926,04</td>
<td>66.487.123</td>
<td>10.273,68</td>
</tr>
<tr>
<td>2010</td>
<td>96.138.157</td>
<td>14.123,04</td>
<td>91.923.281</td>
<td>15.225,1</td>
</tr>
<tr>
<td>2011</td>
<td>134.770.073</td>
<td>22.117,52</td>
<td>125.988.086</td>
<td>22.873,51</td>
</tr>
<tr>
<td>2012</td>
<td>171.431.967</td>
<td>29.936,92</td>
<td>162.001.514</td>
<td>30.664,17</td>
</tr>
<tr>
<td>2013</td>
<td>158.031.069</td>
<td>28.352,17</td>
<td>138.222.696</td>
<td>28.564,22</td>
</tr>
</tbody>
</table>

As seen in the Table, expenditures gradually increase between 2008-2011, reaching its highest point in 2012, which increased in 2013 compared with other years, and is lower than 2012. This, as expressed before, is in line with the finding that Turkey’s e-commerce volume in 2012 increased 75%.

Table 6: Information Technology Usage in Businesses (TÜİK 2004-2013)
As seen in the Table, the majority of Turkish businesses started using and accessing to the internet in 2005, however although website owning started increasing from 2005, the lack of websites in most businesses in 2013 is an indication of non-widespread e-commerce.

The characteristics of Turkish e-commerce entrepreneurs by their demographical distribution are as follows: 91% of the entrepreneurs is male, with 9% female; 46% is aged between 25-34, 38% between 35-44, 10% between 45-54, and 5% between 18-24. 47% are college graduates, 25% are elementary and secondary school graduates, 18% are postgraduate, and 10% are associate degree holders. Clearly, the majority of e-commerce entrepreneurs is males aged between 25-34, with college education. The distribution of Turkish e-commerce entrepreneurs by cities shows İstanbul (57%) at the top. It is followed by Ankara (6%), İzmir (6%), Bursa (6%), Antalya (4%), and İzmit (2%). The total amount of other cities is 19%. The operational times of e-commerce businesses are as follows: 0-1 years 58%, 2 years 15%, 3-5 years 14%, and 5+ 13%. And the number of employees in e-commerce businesses is: 1-5 persons 68%, 6-10 persons 13%, 11-25 persons 8%, 26-50 persons 6%, and 51+ 5%. Categories of top-selling websites include, respectively; Accessories, watches, jewelry etc. -Electronic, Other- Hobbies, Toys- Garments, Cosmetics, Mother and Baby Products- information, Software services-Furniture, Home Appliances and Shoes. (www.eticaret.com 31 May 2013). Apparently, Turkish e-commerce businesses are mostly based in İstanbul, started in the last one year, recruiting 1-5 persons and selling watches and accessories, jewelry, electronics, and other products. From an e-commerce model perspective, the full-fledged internet model is most commonly used. Examples include Hepsiburda, Markafoni, Gittigidiyor, and Grupanya. yemeksepeti.com is an example of Buy online, pay at the door. Sahibinden.com, Hürriyetemlak, and Projekurdu are examples of Find online and finish traditionally.

5. Conclusion

There are three basic characteristics that differentiate internet entrepreneurs from others: low startup capital requirement, low operational costs, and enabling access to large groups of people. Internet businesses contribute to the economy, social life and employment. They include new business models, individual participation, and new sectors. There has to be an infrastructure and a competent domestic market that can buy offered products and services for internet businesses to emerge. In 2011, Turkey ranked 17th among 24 European countries with an e-commerce sales volume of 3.1 billion Euros. In 2012, Turkey increased its e-commerce sales volume to 5.4 billion Euros, ranking 13th among 24 European countries. In 2012, Turkey ranked at the top among European countries with an annual e-commerce volume increase of 75% (EDIT).

The Turkish failed to fully use the potential of 35 million internet users (Report of the Ministry of Development). In Turkey, as described above, the use of information technology tools including computers, netbooks, and tablet computers started increasing particularly after 2004. However, again as described above, the majority of internet users is aged between 16-24, therefore this group has no economic owning capability (since most of them are students). Similarly, the majority of Turkish individuals do not need to buy online. In this regard, one can conclude that e-commerce businesses do not offer them price advantages, variety, or easies of use. Furthermore, individuals have confidentiality and security concerns about buying online. The majority of Turkish e-commerce organizations are B2C businesses. Examples include Hepsiburada.com (24%), gittigidiyor.com (19%), and Garanti Bankası (22%). In Turkey, consumer to consumer (C2C, sahibinden.com (%9)) and business to business aasii (B2B) e-commerce had a relatively weaker development. From e-commerce categories perspective, there are no
categories that have been fully transferred online in Turkey. However, garments and sports items, electronics, travel and media categories are being transferred online.

Lastly, this paper concludes that the rapid developments in information and communication technologies in today’s world result in easier and cheaper global communication among individuals. And the economic aspect of such developments resulted in e-commerce organizations. Economically developed societies that are widely using the information technology easily adopt and widely benefit for e-commerce. In this regard, Turkey is in a rapid development and a better development is expected in the coming years in e-commerce field both on the entrepreneurs and buyers’ sides since the majority of internet users are young individuals aged between 16-35 and it is a large group in the general population.

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