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**ATINER's Conference Paper Series
CBC2017-2412**

**Global Economy and E-Commerce:
Development of E-Commerce in Turkey and its Global
Position in Today's Global Environment**

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This paper should be cited as follows:

Kuyucu, M. (2018). “Global Economy and E-Commerce: Development of E-Commerce in Turkey and its Global Position in Today’s Global Environment”, Athens: ATINER'S Conference Paper Series, No: CBC2017-2412.

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www.atiner.gr

URL Conference Papers Series: www.atiner.gr/papers.htm

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ISSN: 2241-2891

20/02/2018

Global Economy and E-Commerce: Development of E-Commerce in Turkey and its Global Position in Today's Global Environment

Mihalis Kuyucu

Abstract

The more the internet improves, the more web applications developed on it also improve. After simple web pages, applications like E-commerce, B2B, B2C, and M-Commerce, among others, which have more advanced technological infrastructure, were created. Nowadays, database processes are used on a lot of webpages. Today, a new name of commerce influenced by technology, Electronic Commerce, may be defined as the buying, selling, ordering and sometimes delivering of products electronically through a network in general. The popularization of retail sales, via a developed internet medium, caused the e-commerce concept to be mentioned more frequently. The Internet enhances the market share of companies through the development of new marketing strategies and opportunities all around the globe in an economic and efficient way by enabling simultaneous access to a lot of people. Therefore, companies started to use their webpages and databases as stores. Developments in information technologies enable companies to sell their products on virtual environments. E-commerce includes both business to customer and business to business commerce in the virtual environment. There are nearly 48 million internet users in Turkey, and 41.5 million people, which constitute 87% of these users, use the internet every day. The most frequent action is searching for product information, other than reading e-mails and logging into social networks. When only one month of e-commerce user count of Turkey is viewed, it reveals that 52% of internet users look for products or services, visit an online retail store to purchase online and 43% of those users make that purchase (e-commerce magazine, 2017). Turkey, having a population of approximately 80 million, is one of the most open countries to e-commerce amongst developing countries. So, where is Turkey's place in global economy and global e-commerce around the globe? The answer to this question is sought in this study about the development of Turkey's e-commerce volume, the e-commerce perspective of Turkish internet users, and the place of Turkey in global economy created by e-commerce around the globe. Within this scope, this study consisted of two different parts. In the first part, global economy and the contribution of e-commerce to such topics are viewed. A literature review has been conducted in part where historical progress of E-commerce in Turkey and the world has been viewed. In the second part of the study, a survey about the perspective of Turkish internet users to e-commerce has been conducted, and advantages of e-commerce usage by Turkish internet users according to uses and gratification theory have been studied.

Keywords: E-commerce, global economy, Turkey, B2B, B2C, uses and gratification theory

Introduction

Thanks to globalization, which began in world trade in the 1980s and has grown rapidly since the 1990s, the scope of the trade has also expanded. As a result of globalization, developments in communication technologies have also revealed the concept of e-commerce in the world becoming a global village. Besides the mobile commerce and face-to-face commerce, which could be previously described as a known or classic trading style, the concept of electronic commerce that allows for trading over the internet has emerged.

The distances between buyers and sellers have lost their importance thanks to the internet creating new opportunities in international trade. Methods of trading and communication have also changed in a broader sense. This process was present in Turkey. From the second half of the year 2000, e-commerce has begun to play a more prominent role in economic life.

The change caused by the new economy has transcended businesses and marketplaces and has included individuals, communities and societies. This broad scope has resulted in rapidly developing new structures, such as social networks and social media that contain user-based content. This situation has increased the importance of e-commerce in the new economy and has led to a shift in the traditional trade gradually. E-commerce carries business processes that are designed to achieve the goals of the business through electronic media with the help of information technology. In other words, e-commerce implies trading electronically in appearance, a dynamic and integrated system performing a brand-new process, and transformation in understanding. The global dimension of e-commerce is crucial because e-commerce is a constantly-developing concept, covering businesses on the global and individual scales, to manufacture and distribute goods and services through information technology. One of the indispensable aspects of e-commerce is to see information as the most valuable resource, and to produce, obtain, use and market it (Nemat 2011: 102).

As Turkey, a developing country, increases its internet accessibility, e-commerce market develops. According to data of the "Digital Consumer Trends Survey" conducted by Accenture Research Company throughout 17 countries in 2016, internet consumers in Turkey have increased their purchases over mobile devices when compared to other countries. According to this survey, 52% of online shoppers in Turkey think that it is easy to shop with a mobile device. While 45% of people in Turkey use mobile channels to find the product they are looking for, this figure is 48% throughout the world (Habertürk 2016: 9).

This study consists of a research on the development of e-commerce in Turkey. In the first part of the study, the literature review on the concept of e-commerce and e-commerce development in Turkey and throughout the world was made. In the light of these researches, the situation of e-commerce in Turkey and throughout the world was examined. In the second part of the study, a research was conducted on the online shopping habits of internet users, who are the leading actors of e-commerce in Turkey. In the study, we examined whether online shopping habits of consumers differ according to their demographic characteristics, and four hypotheses were developed and examined.

Globalization and Global Economy

Globalization in the economic area means that, beyond the fact that economies of countries are outward-oriented in the area of trading, all economic units, especially businesses, are world-oriented in performing their activities in a wider range of world economies (OECD 1997: 7). For this reason, each view approaches the phenomenon of globalization differently and determines its position accordingly.

According to Giddens, one of the people studying the phenomenon, globalization is the intensification of social relations throughout the world, and due to this effect, local events can be formed at the global scale, even miles away (Göngen 2013: 119). According to Oran (2001: 112), there are three stages of globalization in history. These are classified as the first globalization in 1490, the second globalization in 1890, and the third globalization in existence today. The third globalization in the classification of Oran has been revealed by three different driving forces from the 1970s to today at 10-year periods. The first of them is the strengthening of multinational corporations in the 1970s, the second is the communication revolution that emerged with the birth of the computer and then the internet in the 1980s, and the third is that the West became unrivalled with the collapse of the Soviet Union in the 1990s.

Today, globalization is one of the most controversial concepts in business and economics with its positive and negative consequences for national economies. This concept, which expresses the free circulation of goods, services, capital, information and technology, is, in one sense, a way of applying neo-liberal economics to the world. In the 1980s and 1990s, international economic integration was accelerated, and world countries adopted more efficient production, investment and trade value by removing borders. Globalization is not only a system composed of the economy and based on a profit-oriented market economy, but also a major change project including political and socio-cultural areas (Danışoğlu 2004: 215).

The Concept and Development of E-Commerce

Concepts such as e-commerce, e-business, internet economy, digital economy and new economy are new concepts. For this reason, they do not yet have a common interpretation. The use and importance of these concepts have increased in direct proportion to increases in the use of the Internet and of new information and communication technologies (ICTs). E-commerce is one of the key criteria of the information technology revolution and communication in the economy as a powerful concept and process changing the foundation of human life (Nanehkaran 2013: 190).

With a general definition, the concept of electronic commerce is considered trading electronically in the new economy system of the globalizing world. E-commerce, the new way of doing business of the global economy, is the process of

buying, selling, exchanging or transferring goods, services and information through computer networks (Turban et al. 2012: 38).

With a more comprehensive definition, e-commerce is a combination of opportunities to reach large masses using the capabilities of traditional Information Technology (IT) systems. By this means, buyers, sellers and dealers are brought together through a web channel. Customers from all over the world can shop, and transactions can be carried out between the company and its dealers over the web (Marangoz 2011: 184).

According to the definition of the Organization for Economic Co-operation and Development (OECD), e-commerce is the processing and transmission of transactions, including all individual and organizational commercial activities via digital data, audio and visual images. According to the World Trade Organization (WTO), it is the process of purchasing and selling goods and services over computer networks using specially designed methods for receiving or placing trade orders. Based on this definition, it can be said that electronic commerce is carried out through cyber networks, and thus the buyer and seller do not necessarily have to face, contrary to classical trading methods.

The main focal point of the concept of e-commerce is the participation of small businesses in the broader business operations thanks to the Internet. In this context, e-commerce is the use of the Internet to manage all internal and external data, including purchasing, sales, production and operations (Tekel 2014: 26). E-commerce is the purchase and sale of goods and services through internet pages, EDI or extranet networks that are specially designed for order receiving and placing. According to this definition, online ordering is the only must for e-commerce. When we look at e-commerce through definitions other than this one, we can see that its scope actually is spread over a wide range of areas.

E-commerce has emerged both indirectly and directly (Marangoz 2011: 184-185):

- Indirect e-commerce: refers to ordering goods electronically and delivery of them by mail or commercial couriers.
- Direct e-commerce: refers to online ordering, paying and delivering of non-physical goods and services, such as computer programs, music and entertainment, audio and visual works, services that provide information on a variety of topics, and consulting services.

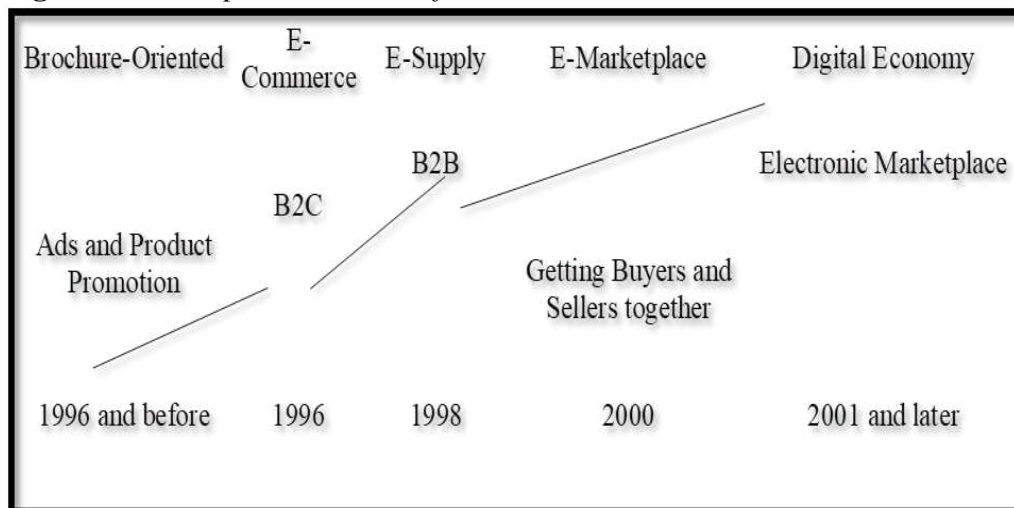
Companies active in e-commerce are of two types, mainly with or without physical stores in terms of their business models. Accordingly, there are companies that manage physical stores entirely independently from web stores, as well as companies that build these two structures in a way supporting each other (Erkan 2012: 11).

Waghmare has collected e-commerce types under four headings with the most common classification. According to this (Gangeshwer 2013: 189):

- B2B E-Commerce: Companies that work with each other, such as manufacturers selling to distributors and wholesalers selling to retailers. Pricing is based on order quantity, and bargaining is usually possible.
- B2C E-Commerce: Businesses that sell to the general public through catalogues, usually using shopping cart software.
- C2C E-Commerce: There are many websites that offer free classified advertisements, auctions, and forums that people can buy and sell thanks to online payment systems such as PayPal, where people can easily send and receive money online.
- Others: G2G (From State to Government), G2E (From State to Employee), G2B (From State to Operator), B2G (From Business to State).

As can be seen in Figure 1, the development of e-commerce has shown a steady upward trend. In particular, use of personal computers, development and cheapening of internet technologies have expanded the scope of e-commerce over the years.

Figure 1. *Development Process of E-commerce*



Source: Güleş et al. 2003: 468

As a result of the increase in internet usage rates worldwide and the developments in the technical infrastructure, commerce has begun to shift more to internet day-by-day with the effect of the benefits it has provided businesses and consumers (Erkan 2012: 11). E-commerce, increasing especially in the last decade, has reshaped consumers' shopping habits and companies', especially retailers', business models, (Deloitte 2016: 7).

Most of the studies on e-commerce indicate that e-commerce is more advantageous than traditional trading. In particular, e-commerce offers many opportunities for entrepreneurs because documents and information can be communicated to the parties in a short period of time via the internet. As such, market penetration obstacles can be removed, there is no need for middlemen,

and various activities can be performed at low costs (Sarisakal and Aydın 2003: 84).

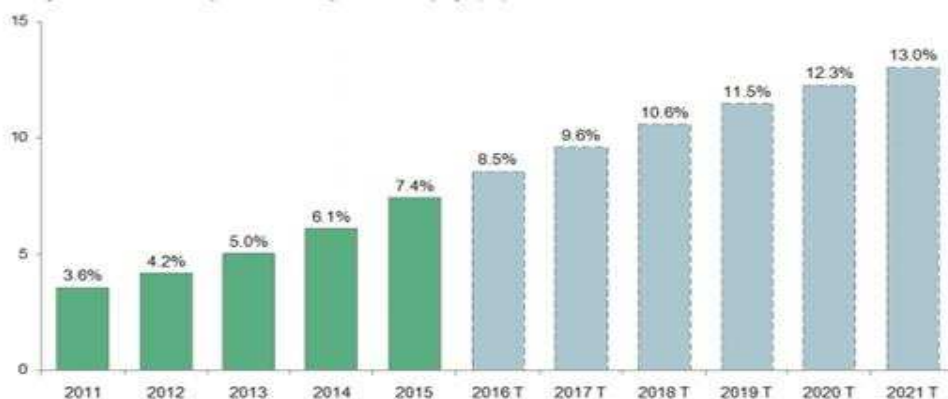
E-commerce that will continue to grow rapidly in the near future has numerous benefits to the society and economy. Some of these can be summarized as follows (TÜSİAD 2017: 13):

- It decreases informality in the economy, increases productivity, competitiveness and, with the support it has provided to the growth of businesses, employment.
- It improves sectors in which it interacts and gets service from such as Logistics, Information Technologies.
- It ensures that SMEs can compete with large companies thanks to not possessing many cost elements required in the physical world.
- While enabling the promotion of products abroad to be easier, faster and cheaper, it increases exporting potentials of companies and reduces input costs (TÜSİAD 2017:13).

The rise of the middle class in developing countries and thus the increase in expenditure tend to support the e-commerce sector. The high-speed internet infrastructure, the increase in number of internet users and international investments are among other supporting factors. Product variety provided by e-commerce for consumers, detailed product information, the possibility to benchmark product features and prices have been influential in the development of e-commerce. Other developments that will be effective in the development of e-commerce in the upcoming periods are as follows (Afra 2014: 27):

- Contraction of the traditional retail sector,
- The inclination of the young population towards internet and e-commerce
- Increase in mobile device usage
- Rapid growth of developing markets

Figure 2. *The Share of E-Commerce in Total Trade in the World*



Source: *Afra, 2014*

E-Commerce in the World

In the 1970s, the term electronic commerce was used to refer to electronic data exchange to submit commercial documents electronically, such as electronic purchase orders. After that, and with the development of the industry, the term e-commerce has started to be used for the trade of goods and services over the web (Nanehkaran 2013: 190).

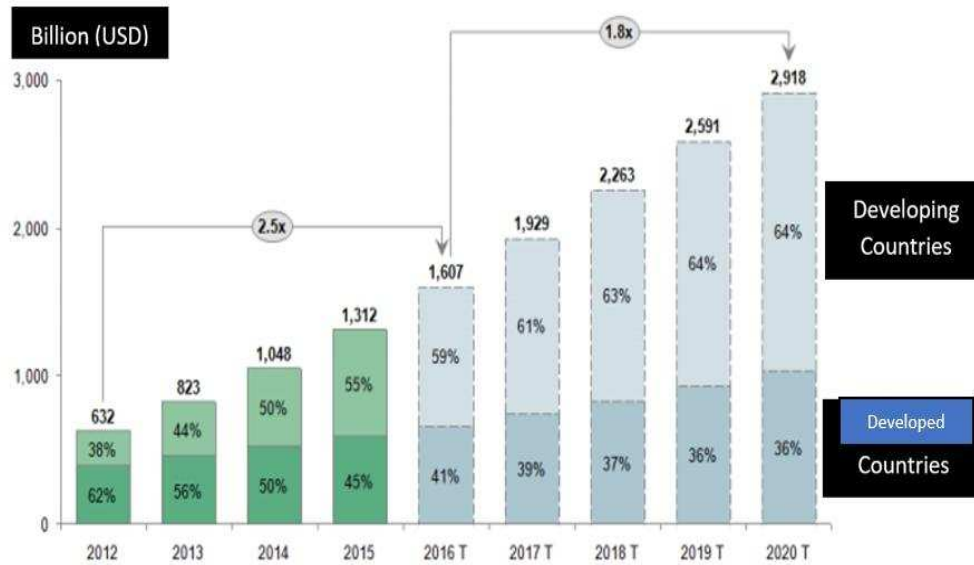
E-commerce, which has begun to be known throughout the world as a concept since the 1980s, has become widespread over time. In 1982, France Telecom invented Minitel (Benghozi and Licoppe 2003: 20-22). This system was used as a prototype of the internet network that we use today. Minitel's features made it possible to shop remotely and facilitated the communication network. In particular, the possibility of using credits card for purchases made over this network and the addition of payments made to the bill at the end of the month have been an important milestone in the history of trade as an unprecedented innovation.

Another development in the 1980s, which can be deemed a milestone, was the first online shopping through Gatedshed SIS/Tesco Systems, founded by James Snowball. This development, which developed and continued the e-shopping process began by Minitel in France, is another important step in the widespread of e-commerce (Aldrich 2011: 57-60). Pizza Hut, which opened its website in 1994 for orders to be placed through a web browser, was the first company to sell online. Amazon.com came into operation in 1995 to sell books online. The first person-to-person sales platform was opened under the name of Auctionweb.com in 1997, and received the name eBay.com in 1997. In 1998, Alibaba.com, the most important website for inter-business trade, began its operations in China (Erkan 2012: 13).

In the 2000s, numerous new initiatives and websites selling online came into operation. Today, e-commerce is a major industry, competing against traditional commerce and offering countless opportunities. World retail e-commerce reached \$1.6 trillion in trading volume by 2016, and it is predicted that the continuous growth rate will continue in the future. According to Goldman Sachs' 2020 estimations, e-commerce's global trading volume will reach approximately \$3 trillion (TÜSİAD 2017: 17).

As can be seen from Figure 2, two issues are at the forefront in the development of e-commerce. Accordingly, the appearance of e-commerce has begun to change in the world. While 62% of the total e-commerce volume was created by developed countries in 2012, today, almost 60% of it is created by developing countries. It is also estimated that this situation will continue. The most important role in the change of this table belongs to China.

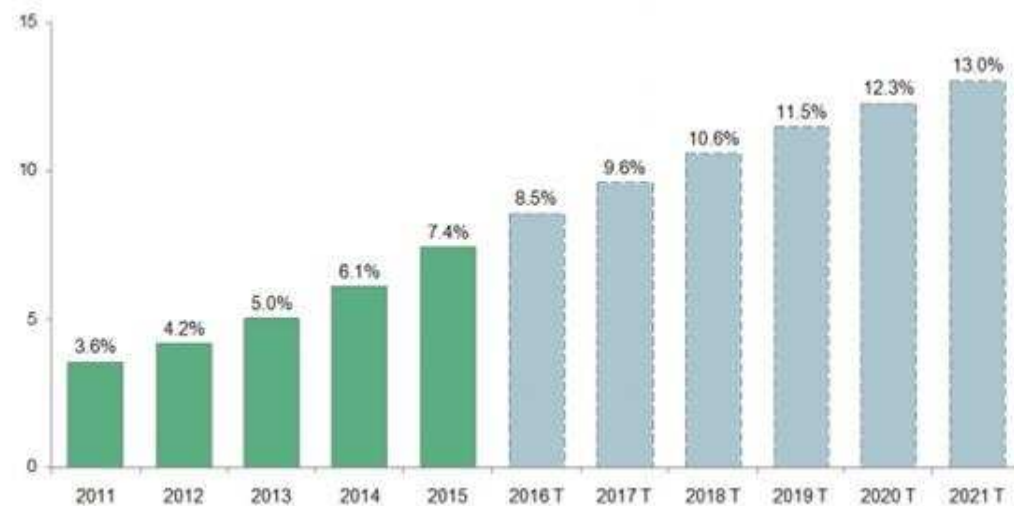
Figure 3. *Development of E-commerce in The World*



Source: TÜSIAD 2017: 17

In 2012, the share of e-commerce in China in total trade was just 4%, but after just four years, rose to 17%. Moreover, this country succeeded to increase its e-commerce volume up to 54%, a record level, between these years. Thus, by 2016, the country has begun to meet 47% of the world e-commerce volume alone. It is estimated that the country will constitute 60% of world e-commerce volume in 2020. A large part of this volume in China is from the Alibaba group, which is an e-commerce giant (TÜSIAD 2017: 18).

Figure 4. *The Share of E-Commerce in Total Trade in the World (%)*



Source: TÜSIAD 2017: 19

Another of the most recent developments in e-commerce throughout the world is that the mobile device has become one of the most important channels

of e-commerce. Thanks to the increase in smartphone sales in response to the drop in sales of computers and laptops, mobile's share in e-commerce, which was 10% in 2012, reached 44% by 2016. According to many predictions, this trend will continue, and thus mobile e-commerce will be one of the main factors in the formation and development of the next generation of trade (TÜSİAD 2017: 22).

It is expected that in 2018, global retail e-commerce sales will approach \$2.5 trillion. In the report published based on worldwide predictions made by research firm e-Marketer, it is predicted that China will realize 40% of global online retail sales in 2018, and online sales in the country will exceed \$1 trillion (E-Marketer 2017).

Despite all these improvements, there are other factors that prevent further enlargement of e-commerce on a global scale. The most important of these is the lack of a digital connection for a large population of the world. As stated in the World Development Report 2016, the lives of the majority of the world's people are largely removed from the digital revolution. Only 15 percent of the world's population has internet access (WTO and OECD 2017: 180-181).

According to another statistic, while mobile phones reach nearly one-half of the world's population and thus offer the main form of internet access in developing countries, 2 billion people worldwide do not have mobile phones. Nearly 60% of the world's population does not have any internet access. Making the internet universally accessible and affordable should thus be a global priority (WTO and OECD 2017:181).

E-Commerce in Turkey and its Development

The first application of comprehensive internet marketing in Turkey was through Electronic Funds Transfer (EFT), which started between the Central Bank of the Republic of Turkey (CBRT) and private banks in 1992 (Aydemir 2004: 27).

Following the internet connection project of METU in Turkey, the first internet initiatives have been put into practice with the increasing use of internet in society in the second half of the 90's. The first e-commerce project in 1998, Infoshop.com.tr, used a virtual POS system through Garanti Bank, which was the first time in Turkey that this was put into practice. This website later received the name Hepsiburada.com and was included in the Doğan Group. During the same period, Biletix.com, Yemeksepeti.com and Gittigidiyor.com, which was bought by eBay.com in the same year, came into the market (Erkan 2012: 13). The use of virtual cards since 2000 and 3D security since 2002 have been important factors in the further development of e-commerce (Tekel 2014: 29).

When the spread of internet in the world is examined, it can be stated that there is still a serious potential in this issue considering the existence of countries with penetration reaching 90 percent. In addition, Turkey has a similar feature to developing countries with these penetration rates. Private shopping sites are

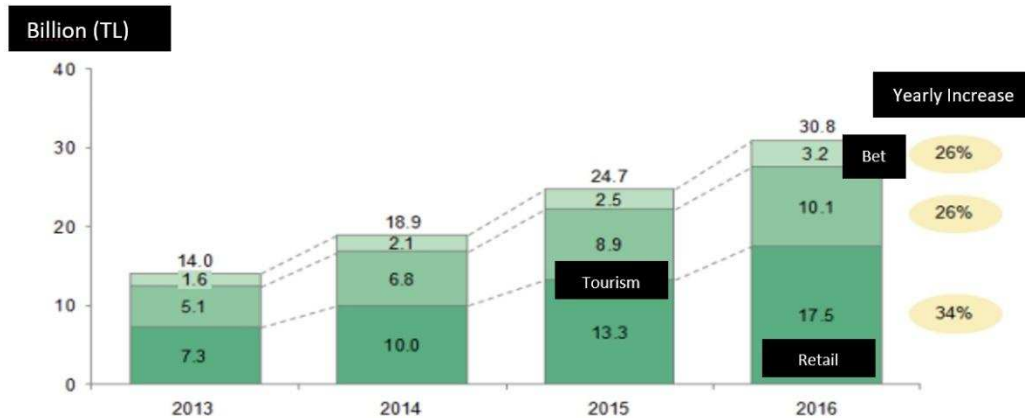
major contributors to the increase in e-commerce in Turkey. Thanks especially to the low-priced shopping opportunities provided by private shopping sites, the most important expectation of consumers from e-commerce has become the price. "The most challenging situation experienced by many e-commerce companies today is to tell consumers that the advantage of e-commerce is not only the price, but also other advantages including the diversity, convenience, information, sharing and so on" (Afra 2014: 40).

Today, according to results of TURKSTAT's Survey on the Use of Information Technologies in Start-ups, more than 90% of surveyed companies have internet access, and rates of enterprises with webpages/sites are 61.6% in enterprises employing 10-49 employees, 79.7% in enterprises employing 50-249 employees, and 90.9% in enterprises employing 250 or more employees (Acilar 2016: 283).

According to studies conducted by TÜBİSAD and ETİD together, the e-commerce market volume reached TL 30.8 billion by 2016 as a result of internet accessibility and smart phone usage in Turkey. Including all sectors, the retail dimension of e-commerce has increased by 34% per year since 2013, reaching TL 17.5 billion in 2016 from TL 7.3 billion (TÜSİAD 2017: 44).

Approximately 70% of the retail e-commerce volume amounting to \$17.5 billion in Turkey stems from marketplaces and multi-category sites, vertical sites and private shopping sites that sell from online channels. The other 30% includes electronic sales of classical retailers (TÜSİAD 2017: 45).

Figure 5. Volume of E-Commerce Market in Turkey



Source: TÜSİAD 2017: 44

When Euromonitor's numbers calculated considering the total retail volume are examined, it can be found that the share of e-commerce in total retail trade, which was 1.7% in 2012, rose to 3.5% by 2016. There is still a long way to go for Turkey in the retail e-commerce market, especially when compared to the levels of China, Britain and USA, which have reached 17.1%, 14.9% and 10.5%, respectively (TÜSİAD 2017: 45).

Despite the recent rapid increase in e-commerce, it is difficult to say that the retail branch of this growth occurs at the same speed. Although Turkey

does not differ drastically from other developing countries, especially in terms of infrastructure, and even has been preceding countries such as China, India and South Africa, e-commerce has a relatively low share in total retailing (TÜSİAD 2017: 44).

Primary Research

The Aim, Importance and Hypotheses of the Study

Online shopping is used intensively in Turkey, as well as all over the world. The e-commerce volume has been increasing every year, in spite of various restrictions and security measures applied by the BRSA regarding the use of credit cards on the internet. This volume reached TL 30.8 billion by 2016. Therefore, in order to be able to evaluate the potential in e-commerce, it is important to indicate what influences consumers' online shopping behaviours. This research was conducted to determine whether consumers' online shopping behaviours vary according to their demographic characteristics in Turkey. For this aim, the following hypotheses have been established.

- H1: Online shopping behaviours vary according to the gender of participants.
- H2: Online shopping behaviours vary according to the age of participants.
- H3: Online shopping behaviours vary according to monthly incomes of participants.
- H4: Online shopping behaviours vary according to occupations of participants.

Data Collection Method

In order to measure participants' online shopping behaviours as well as their demographic features, a survey form consisting of a total of 15 expressions prepared as 5-point Likert scales was used. In social sciences, the data collection method of the majority of quantitative designs is the application of surveys. Surveys can be completed through face-to-face communication, by email, by phone call, or via a computer. The survey can also be made by asking the questions directly and collecting data by using the interviewer or by making subjects fill the survey form using an interviewer (Erdoğan 2012: 216). In this study, survey forms were filled by asking direct questions using face-to-face communication and an interviewer. In the scale of the research, the master thesis of Dursun (2015) was taken as a reference, and it was updated according to the current time.

Population and Sample

The research was conducted to describe consumers' online shopping behaviours. The minimum number for a sample in populations with up to 100

million participants at a significance level of 0.05 is 384 (Table 1). In the research, 768 (2X 384) participants were reached to increase the level of representation of the population.

Table 1. *The Population-Sample Dimension of the Research*

Population	Sample Dimension at a Significance Level of 0.05
100	80
500	217
750	254
1000	278
2500	333
5 thousand	357
10 thousand	370
25 thousand	378
50 thousand	381
100 thousand	383
1 million	384
100 million	384

Source: *Yazıcıoğlu and Erdoğan 2004: 50*

Validity and Reliability

The reliability value is an indication of the degree of reaching the same result in repeated measurements. For this reason, survey questions are subjected to reliability analysis. Cronbach's alpha coefficient is used in reliability analysis. This coefficient takes a value between 0 and 1, as you approach 1, the reliability of the survey increases. When the coefficient is over 0.70, the survey is a reliable survey (Cihangiroğlu et al. 2011: 85). As a result of the reliability analysis performed, the reliability value of the online shopping scale used in the study was 0.887. Therefore, the scale used in the study gives reliable results.

Table 2. *Reliability Analysis*

Cronbach's Alpha	N
0.887	15

KMO and Bartlett Analyses were used to test the structural validity of the survey form used in the study. As seen in Table 2, the KMO value of the scale used in the study was 0.846. The p-values for the Bartlett Analysis were ($p = 0.000 < 0.05$). According to the analyses, if the KMO value is over 0.60 and the Bartlett test is meaningful (p is less than 0.05), the scale has structural validity (Büyüköztürk 2006: 179).

Table 3. Validity Analysis

		Online Shopping
Measurement of Kaiser-Meyer-Olkin Sample Adequacy		.846
Bartlett Sphericity Test	Chi-Square	795.192
	df	105
	p	0.000

Normality Analysis

To determine the types of analyses to be used in the study, it was first necessary to determine whether the data show a normal distribution. The convenience of data to normal distribution was tested with the help of the Kolmogorov-Smirnov Normality Test. As a result of the normality analysis, it was found that the Online Shopping Scale was suitable for the normal distribution ($p = 0.200 > 0.05$). For this reason, it was decided to use parametric tests in the analysis for social media adoption.

Table 4. Normality Analysis

		Online Shopping
N		768
Normality Parameters	Average	3.9942
	St. Deviation	.42630
Extreme Differences	Absolute	.049
	Positive	.033
	Negative	-.049
Test Statistics		.046
p		.200

Data Analysis

In the research, the personal characteristics of participants in the survey form were first given considering frequency and percentage distributions. Validity and reliability analyses were carried out primarily on the survey form in the second part. After the validity and reliability of the survey form was found to be high, statistical analyses were carried out. Parametric tests from statistical analyses were used for the Online Shopping Scale in the analysis of data collected from the research. Accordingly, the independent sample t test was used for variables with two groups of options, and ANOVA was used for variables with more than two groups of options. Tukey's range test was used to determine the groups for which a difference was determined as a result of the ANOVA test. All analyses were carried out with SPSS for Windows 24.0 package program.

Findings

In this section, the findings of the research are showed.

Demographic Analysis

The gender distribution is shown in the following table: 54.9% of the participants are male, and 45.1% are female.

Table 5. Distribution of Participants by Gender

	N	%
Male	421	64.9
Female	347	35.1
Total	768	100.0

14.45% of the participants were in the age range between 20 and 25, 32.55% between 26 and 30, 25.39% between 31 and 35, 13.02% between 36 and 40, 6.77% between 41 and 55, and finally 7.81% were over 56.

Table 6. Distribution of Participants by Age

	N	%
20-25 Years Old	111	14.45
26-30 Years Old	250	32.55
31-35 Years Old	195	25.39
36-40 Years Old	100	13.02
41-55 Years Old	52	6.77
56 Years Old and Over	60	7.81
Total	768	100.00

Regarding income, 22.4% of participants have a monthly income less than TL 2000, 23.05% between TL 2001 and 3000, 20.96% between TL 3001 and 4000, 17.32% between TL 4001 and 5000, and lastly, just 16.28% made more than TL 5000 in a month.

Table 7. Distribution of Participants by Monthly Income

	N	%
TL 0-2000	172	22.40
TL 2001-3000	177	23.05
TL 3001-4000	161	20.96
TL 4001-5000	133	17.32
More than TL 5000	125	16.28
Total	768	100.00

Occupations were also varied, with 22.4% of the participants listing themselves as workers or paid employees. Meanwhile, 23.05% are civil servants, 20.96% are students, 17.32% are housewives, 11.46% are self-employed, and 4.82% are retirees.

Table 8. *Distribution of Participants by Occupation*

	N	%
Worker – Paid Employee	172	22.40
Civil Servant	177	23.05
Student	161	20.96
Housewives	133	17.32
Self-employed	88	11.46
Retiree	37	4.82
Total	768	100

Frequency Analysis

Responses given by participants to expressions regarding the online shopping scale were examined. According to this, the first 3 expressions to which participants gave the most positive opinions are as follows:

Expression 5, "with online shopping, I am saving my time" (average is 4.42 and standard deviation is 0.713).

Expression 8, "The money I pay for products I buy via online shopping meets my expectation from the product" (average is 4.35 and standard deviation is 0.676).

Expression 7, "online shopping sites, which I shop, allow me to market products appropriate for me" (average is 4.32 and standard deviation is 0.676).

The three expressions to which participants gave the most negative opinions are as follows:

Expression 11, "the instalment options offered on the payment of the product I buy online make me prefer online shopping" (average is 3.09 and standard deviation is 1.181).

Expression 12, "I prefer online shopping because of the complete elimination of my unjust suffering from possible problems related to the product/service I bought online" (average is 3.53 and standard deviation is 1.168).

Expression 10, "I prefer online shopping because there are more advantages such as discounts/campaigns in online shopping when compared to physical shopping" (average is 3.68 and standard deviation is 1.254).

Table 9. Frequency Analysis

	Strongly disagree	Disagree	Neutral	Agree	Completely Agree	Average	St. Deviation
1. When I shop online I spend less money.	1.7	2.5	3.8	49.6	42.4	4.28	0.799
2. I can shop online in any environment at any time of day.	2.1	3.8	4.7	43.6	45.8	4.27	0.882
3. The most important reason for preferring online shopping is that I do not encounter problems that are caused by human factors like queue and traffic.	0.8	6.4	18.2	45.8	28.8	3.95	0.896
4. I prefer online shopping because it includes product variety, product benchmarking and practicality in buying products.	0	3.8	19.9	56.8	19.5	3.92	0.736
5. Online shopping enables me to save my time.	0.4	2.5	3	42.4	51.7	4.42	0.713
6. In online shopping, I have the opportunity to compare more easily the prices and information about products that are offered by different brands.	0.8	1.3	6.8	51.7	39.4	4.28	0.718
7. Online shopping sites, on which I shop, allow me to market products appropriate for me.	0.4	1.3	5.5	51.3	41.5	4.32	0.676
8. The money I pay for products I buy via online shopping meets my expectation from the product.	0.8	0.8	3.8	51.7	42.8	4.35	0.676
9. I can follow new trends more closely by shopping online.	6.4	13.1	10.6	39.8	30.1	3.74	1.201
10. I prefer online shopping because there are more advantages such as discounts/campaigns in online shopping when compared to physical shopping.	7.2	15.3	10.6	36.4	30.5	3.68	1.254
11. The installment options offered on the payment of the product I buy online make me prefer online shopping.	11.9	22.5	17.4	41.1	7.2	3.09	1.181
12. I prefer online shopping because of the complete elimination of my unjust suffering from possible problems related to the product/service I bought online.	4.7	20.3	14	39.8	21.2	3.53	1.168
13. Fast delivery of the products I buy is an important point for me to prefer online shopping.	0.4	2.1	6.8	55.9	34.7	4.22	0.700
14. I enjoy shopping online more than virtual shopping.	2.5	3.8	18.6	53.4	21.6	3.88	0.879
15. Online shopping websites' informative messages, such as SMS/e-mails, motivate me to shop online.	0.4	5.1	14.4	56.8	23.3	3.97	0.788

As a result of the factor analysis, we see that seven expressions are gathered within the marketing success factor and four within the pleasure and saving factors (Table 10).

Table 10. Factor Burdens

	Factor Burdens		
	Marketing Success	Pleasure	Saving
4. I prefer online shopping because it includes product variety, product benchmarking and practicality in buying products.	0.893		
15. Online shopping websites' informative messages such as SMS/e-mails motivate me to shop online.	0.868		
7. Online shopping sites, which I shop, allow me to market products appropriate for me.	0.843		
6. In online shopping, I have the opportunity to compare more easily the prices and information about products that are offered by different brands.	0.803		
10. I prefer online shopping because there are more advantages such as discounts/campaigns in online shopping when compared to physical shopping.	0.765		
11. The instalment options offered on the payment of the product I buy online make me prefer online shopping.	0.726		
13. Fast delivery of the products I buy is an important point for me to prefer online shopping.	0.652		
8. The money I pay for products I buy via online shopping meets my expectation from the product.		0.903	
9. I can follow new trends more closely by shopping online.		0.835	
12. I prefer online shopping because of the complete elimination of my unjust suffering from possible problems related to the product/service I bought online.		0.827	
14. I enjoy shopping online more than virtual shopping.		0.756	
1. When I shop online I spend less money.			0.771
2. I can shop online in any environment at any time of day.			0.739
3. The most important reason for preferring online shopping is that I do not encounter problems that are caused by human factors like queue and traffic.			0.695
5. Online shopping enables me to save my time.			0.683

Statistical Analysis

As a result of the independent sample t test that was conducted to determine whether online shopping behaviours of participants vary according to gender, it is seen that views of participants do vary according to their gender ($p = 0.03 < 0.05$). Online shopping behaviours of women are more positive than those of men ($\bar{X}_{\text{Female}} = 4.08 > \bar{X}_{\text{Male}} = 3.89$). In addition, women's behaviours towards marketing success and pleasure factors are more positive than men's behaviours. Therefore, we can conclude that women are more sensitive to marketing activities in online shopping and enjoy online shopping more.

Table 11. *Gender / Online Shopping T Test*

		\bar{X}	SD	St. Error	p
Online Shopping	Male	3.89	0.873	0.032	0.031
	Female	4.08	0.991	0.013	
Marketing Success	Male	3.81	0.867	0.036	0.017
	Female	4.16	0.987	0.009	
Pleasure	Male	3.84	0.792	0.045	0.022
	Female	4.13	0.856	0.026	
Saving	Male	3.97	0.991	0.194	0.149
	Female	4.00	1.004	0.221	

As a result of the ANOVA analysis that was carried out to determine whether online shopping behaviours of participants vary according to their age, it is seen that views of participants do vary according to their age ($p = 0.011 < 0.05$). As a result of the Tukey analysis carried out to determine the source of this variability, it is observed that those in the age range of 20-25 have more positive online shopping behaviours than those over 36. Moreover, those in the age range of 31-35 also have more positive online shopping behaviours than those in the age range of 36-40. The results are the same for marketing success and pleasure factors from the subscales ($p = 0.017$ and $p = 0.022 < 0.05$, respectively). Behaviours related to the sub-scale of saving do not vary according to age ($p = 0.059 > 0.05$).

Table 12. Age / Online Shopping ANOVA Analysis

		\bar{X}	SD	St. Error	p	Differences
Online Shopping	20-25 Years Old (1)	4.11	0.892	0.033	0.011	1-4
	26-30 Years Old (2)	4.13	0.911	0.044		1-5
	31-35 Years Old (3)	4.24	0.976	0.051		1-6
	36-40 Years Old (4)	3.92	0.769	0.407		2-4
	41-55 Years Old (5)	3.79	0.981	0.022		2-5
	56 Years Old and Over (6)	3.76	0.995	0.038		3-4
Marketing Success	20-25 Years Old (1)	4.09	0.887	0.028	0.017	1-4
	26-30 Years Old (2)	4.11	0.906	0.039		1-5
	31-35 Years Old (3)	4.22	0.971	0.046		1-6
	36-40 Years Old (4)	3.94	0.764	0.402		2-4
	41-55 Years Old (5)	3.83	0.976	0.017		2-5
	56 Years Old and Over (6)	3.78	0.990	0.033		3-4
Pleasure	20-25 Years Old (1)	4.05	0.897	0.038	0.022	1-4
	26-30 Years Old (2)	4.07	0.916	0.049		1-5
	31-35 Years Old (3)	4.18	0.981	0.056		1-6
	36-40 Years Old (4)	3.98	0.774	0.412		2-4
	41-55 Years Old (5)	3.85	0.986	0.027		2-5
	56 Years Old and Over (6)	3.84	1.000	0.043		3-4
Saving	20-25 Years Old (1)	4.01	0.890	0.031	0.059	
	26-30 Years Old (2)	3.96	0.909	0.042		
	31-35 Years Old (3)	3.97	0.974	0.049		
	36-40 Years Old (4)	4.03	0.767	0.405		
	41-55 Years Old (5)	4.12	0.979	0.020		
	56 Years Old and Over (6)	3.89	0.993	0.036		

As a result of the ANOVA analysis that was carried out to determine whether online shopping behaviours of participants vary according to their monthly incomes, it is seen that behaviours of participants also vary according to their monthly incomes ($p = 0.004 < 0.05$). As a result of the Tukey analysis carried out to determine the source of this variability, it is observed that as the monthly income increases, online shopping behaviour becomes more positive. This situation is the same for marketing success and pleasure factors ($p = 0.029$ and $p = 0.022 < 0.05$, respectively), although no difference can be found for the saving factor ($p = 0.178 > 0.05$).

Table 13. *Monthly Income / Online Shopping ANOVA Analysis*

		\bar{X}	SD	St. Error	p	Differences
Online Shopping	TL 0-2000	3.77	0.779	0.022	0.037	1-4
	TL 2001-3000	3.86	0.848	0.037		1-5
	TL 3001-4000	4.03	0.913	0.049		1-6
	TL 4001-5000	4.12	0.844	0.042		2-4
	More than TL 5000	4.18	0.928	0.028		2-5
Marketing Success	TL 0-2000	3.78	0.782	0.020	0.029	1-4
	TL 2001-3000	3.89	0.851	0.035		1-5
	TL 3001-4000	4.05	0.916	0.047		1-6
	TL 4001-5000	4.07	0.847	0.040		2-4
	More than TL 5000	4.18	0.931	0.026		2-5
Pleasure	TL 0-2000	3.81	0.782	0.020	0.022	1-4
	TL 2001-3000	3.93	0.851	0.035		1-5
	TL 3001-4000	3.98	0.916	0.047		1-6
	TL 4001-5000	4.05	0.847	0.040		2-4
	More than TL 5000	4.2	0.931	0.026		2-5
Saving	TL 0-2000	3.91	0.782	0.020	0.178	
	TL 2001-3000	3.93	0.851	0.035		
	TL 3001-4000	4.06	0.916	0.047		
	TL 4001-5000	4.11	0.847	0.040		
	More than TL 5000	3.96	0.931	0.026		

As a result of the ANOVA analysis that was carried out to determine whether online shopping behaviours of participants vary according to their occupations, it is seen that behaviours of participants vary according to their occupations ($p = 0.004 < 0.05$). As a result of the Tukey analysis carried out to determine the source of this variability, it is observed that online shopping behaviours of workers and paid employees are more positive than those of civil servants and students (\bar{X} Worker-Paid Employee = 4.17 $>$ \bar{X} Civil servant = 4.09 $>$ \bar{X} Student = 4.01). The online shopping behaviours of housewives are also more positive than those of civil servants (\bar{X} Housewives = 4.22 $>$ \bar{X} Civil servant = 4.09). Those of students are more positive than those of self-employed persons (\bar{X} Student = 3.85 $>$ \bar{X} Self-employed = 4.01). In the sub-scale of marketing success, it is seen that workers and paid employees have more positive behaviours than civil servants, and in the sub-scale of pleasure, workers and paid employees have more positive behaviours than housewives, while housewives have more positive behaviours than civil servants and students.

Table 14. *Occupation / Online Shopping ANOVA Analysis*

		\bar{X}	SD	St. Error	P	Differences
Online Shopping	Worker – Paid Employee	4.17	0.835	0.103	0.004	1-2
	Civil Servant	4.09	0.867	0.099		1-3
	Student	4.01	0.966	0.156		1-4
	Housewives	4.22	0.927	0.092		2-4
	Self-employed	3.85	0.819	0.088		3-4
	Retiree	3.61	0.795	0.023		
Marketing Success	Worker – Paid Employee	4.24	0.841	0.109	0.009	1-2
	Civil Servant	4.17	0.873	0.105		1-3
	Student	4.07	0.972	0.162		
	Housewives	4.20	0.933	0.098		
	Self-employed	3.77	0.825	0.094		
	Retiree	3.52	0.801	0.029		
Pleasure	Worker – Paid Employee	4.22	0.841	0.109	0.018	1-4
	Civil Servant	4.15	0.873	0.105		2-4
	Student	4.05	0.972	0.162		3-4
	Housewives	4.19	0.933	0.098		
	Self-employed	3.82	0.825	0.094		
	Retiree	3.54	0.801	0.029		
Saving	Worker – Paid Employee	4.19	0.841	0.109	0.054	
	Civil Servant	4.19	0.873	0.105		
	Student	4.01	0.972	0.162		
	Housewives	3.89	0.933	0.098		
	Self-employed	3.92	0.825	0.094		
	Retiree	3.77	0.801	0.029		

Conclusion

Along with the developments in communication technology, the new media has integrated into our lives further with every passing day. This has caused a new lifestyle to emerge. This new way of life has also affected consumers’ tendencies. During the transition from Web 1.0 to Web 2.0, faster and more reliable internet connections have emerged, thus increasing the number of activities that people can do on the internet. This new way of life also directly affects the consumption habits of consumers. With the increase of internet-based sales platforms, consumers have begun to consume in a different way. Purchasing transactions, previously made by going to the stores in person,

have started to be made at home with credit cards. The popularity of these internet sites, which set the initial seeds of e-commerce, has led to the development of this trading type.

With the increase of internet accessibility, Turkey has obtained an important footing in the area of e-commerce among developing countries. In particular, e-commerce activities in the mobile environment have developed almost at the same rate with the EU. The findings of this research, which was made to determine whether internet activities of e-consumers who played a leading role in the development of e-commerce in Turkey vary according to their demographic structures, are opened up for discussion. As a result of the analyses, it is seen that online shopping behaviours vary according to gender, age, monthly incomes and occupations of the participants. Accordingly, all four hypotheses have been confirmed:

- Women's online shopping behaviours are more positive than those of men. Therefore, it is possible to say that women prefer online shopping more than men.
- It is seen that those in the age range of 20-25 have more positive online shopping behaviours than those over 36, those in the age range of 26-30 have more positive online shopping behaviours than those over 36, and those in the age range of 31-35 have more positive online shopping behaviours than those in the age range of 36-40. Therefore, it is possible to say that as the age increases, the behaviour of online shopping becomes more negative, that is, younger people are more positively approaching online shopping than older consumers.
- It is seen that as the monthly income increases, online shopping behaviour becomes more positive. Therefore, it is possible to say that as the disposable income of people rises, they tend towards online shopping.
- It is possible to say that housewives are included in the occupation group with the most positive online shopping behaviour. Housewives are followed by workers and paid employees, civil servants, students, self-employed and retirees.

In light of these results, it is possible to say that online shopping is preferred mostly by women, younger people, those with high monthly income, and housewives and paid employees in Turkey. This target group, which plays an important role in the development of e-commerce, uses the internet more, due to being a more active consumer and having higher economic status. The increase in internet usage in Turkey will affect e-commerce positively, but it will also require increased support for the use of virtual credit cards, as well as a need to eliminate security problems completely. Security is arguably the most important obstacle in the continuing development of e-commerce. As soon as this obstacle is eliminated with more secure transaction systems and as soon as the dissemination of Turkish internet is expanded, the highway of e-commerce will be more open. This serves as evidence that the market of e-commerce trade in Turkey has more advantages to be utilized.

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