

**THE REPUBLIC OF TURKEY
BAHCESEHIR UNIVERSITY**

**THE INFLUENCE OF COVID-19 PANDEMIC ON
CONSUMER BEHAVIOR: A RESEARCH ON E-
COMMERCE BASED ON MASLOW’S HIERARCHY OF
NEEDS**

Master’s Thesis

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**THE REPUBLIC OF TURKEY
BAHCESEHIR UNIVERSITY**

**GRADUATE SCHOOL OF SOCIAL SCIENCE
MASTER OF BUSINESS ADMINISTRATION PROGRAM**

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PREFACE

First of all, I would like to thank my dear family for their great support and special thanks my mother and father-in-law especially. I should emphasize my wife Mrs. Dogru's understanding and assistance not only for thesis support but also entire great and bad moments as a great supporter. I could not complete this study without her help.

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Kemal Ekin Doğru

ABSTRACT

THE INFLUENCE OF COVID-19 PANDEMIC ON CONSUMER BEHAVIOR: A RESEARCH ON E-COMMERCE BASED ON MASLOW’S HIERARCHY OF NEEDS

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Masters of Business Administration Program

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Consumption is one of the indispensable needs of individuals. The purchasing behavior of consumers is affected by many factors. In the crisis environment caused by the Covid-19 pandemic, it is a possible result that consumer purchasing behavior will also differ. This study examines the changes in the online purchasing behavior of the consumer during the restrictions encountered for the first time with the spread of Covid-19 in our country in March 2020 and in the new normal period afterwards, according to Maslow’s Hierarchy of Needs Theory and reveals its effect on the e-commerce sector. aims to put.

For this purpose, the differentiation of needs in purchasing behaviors of consumers during the pandemic according to the Maslow Theory was examined. The effects of restrictions on online shopping behaviors of consumers and changes in purchasing behavior in the ongoing time period are discussed.

With the pandemic, it has been observed that consumers are turning to online channels more than traditional purchasing channels. What needs of consumers using e-commerce prioritized during the crisis period and which products they buy more, whether these purchasing behaviors continue after the crisis, whether the purchasing experience is periodic due to the crisis and its effect on the e-commerce sector are discussed.

For this reason, keywords such as e-commerce, Covid-19, Maslow’s Hierarchy of Needs Theory, online shopping have been defined. In addition, the current status of e-commerce in Turkey and the world with its advantages and disadvantages are also listed. This thesis examines the basic differences related to the purchasing behavior of consumers during the crisis according to Maslow's Needs Hierarchy Theory and discusses the consumers' approach to e-commerce.

Keywords: E-commerce, Covid-19, Consumer Purchasing Behavior, Maslow’s Hierarchy of Needs Theory

ÖZET

COVID-19 PANDEMİSİNİN TÜKETİCİ DAVRANIŞLARINA ETKİSİ: MASLOW'UN İHTİYAÇLAR HİYERARŞİSİNE DAYALI BİR E-TİCARET ARAŞTIRMASI

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Tüketim, bireylerin vazgeçilmez ihtiyaçlarındandır. Tüketicilerin satın alma davranışı birçok faktörden etkilenmektedir. Covid-19 pandemisine bağlı olarak oluşan kriz ortamında, tüketici satın alma davranışlarının da farklılaşması muhtemel bir sonuçtur. Bu çalışma Covid-19 virüsünün 2020 yılı mart ayında ülkemizde yayılmasıyla ilk kez karşılaşılan kısıtlamalar süresince ve sonrasındaki yeni normal döneminde, tüketicinin çevrimiçi satın alma davranışlarında gözlenen değişimleri, Maslow'un İhtiyaçlar Hiyerarşi Kuramı'na göre incelemekte ve e-ticaret sektörüne olan etkisini ortaya koymayı amaçlamaktadır.

Bu amaçla, tüketicilerin pandemi süresince satın alma davranışlarındaki ihtiyaçların Maslow Teorisi'ne göre farklılaşması incelenmiştir. Tüketicilerin çevrimiçi alışveriş davranışlarında kısıtlamaların etkisi ve devam eden zaman diliminde satın alma davranışlarındaki değişimler ele alınmıştır.

Pandemiyle birlikte, tüketicilerin geleneksel satın alma kanalları yerine, çevrimiçi mecralara daha fazla yöneldiği gözlemlenmiştir. E-ticareti kullanan tüketicilerin kriz sürecince hangi ihtiyaçlarını önceliklendirdiği ve hangi ürünleri daha çok satın aldığı, kriz sonrasında bu satın alma davranışlarının devam edip etmediği, satın alma deneyiminin krize bağlı olarak dönemsel olup olmadığını ve bunun e-ticaret sektörüne etkisi ele alınmıştır.

Bu sebeple, e-ticaret, Covid-19, Maslow'un İhtiyaçlar Hiyerarşisi Kuramı, çevrimiçi alışveriş gibi anahtar kelimeler tanımlanmıştır. Ayrıca, e-ticaretin avantajları ve dezavantajlarıyla birlikte Türkiye ve Dünya'daki güncel durumu da listelenmiştir. Bu tez, tüketicilerin kriz süresince satın alma davranışları ile ilgili temel farklılaşmaları Maslow'un İhtiyaçlar Hiyerarşisi Kuramı'na göre incelemekte ve tüketicilerin e-ticarete olan yaklaşımını ele almaktadır.

Anahtar Kelimeler: E-ticaret, Covid-19, Tüketicilerin Satın Alma Davranışları Maslow'un İhtiyaçlar Hiyerarşisi Kuramı

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LIST OF ABBREVIATIONS

BTYK	:	Bilim ve Teknoloji Yüksek Kurulu
B2B	:	Business to business
CEO	:	Chief executive officer
Covid-19	:	Coronavirus disease
EDI	:	Electronic data interchange
EEMEA	:	Eastern Europe Middle East Africa
ETKK	:	Elektronik Ticaret Koordinasyon Kurulu
GDP	:	Gross domestic product
IBM	:	International Business Machine
MENA	:	Middle East North Africa Region
OECD	:	Organization for Economic Development and Cooperation
RQ	:	Research question
SARS-CoV-2:		Şiddetli akut solunum yolu sendromu koronavirüsü 2
Sig	:	Significant
SME	:	Small and medium sized enterprises
SPSS	:	Statistical package for the social sciences
TL	:	Turkish Lira
TUBİSAD	:	Türkiye Bilişim Sanayicileri Derneği
TUSİAD	:	Türkiye Sanayiciler ve İş Adamları Derneği
TÜBİTAK	:	Türkiye Bilimsel ve Teknolojik Araştırma Kurumu
UNCITRAL	:	United Nations International Trade Commission
US	:	United States
USD	:	United States Dollar
WHO	:	World Health Organization
WTO	:	World Trade Organization

1. INTRODUCTION

The purchasing behavior of consumers is affected by many factors. Maslow's Hierarchy of Needs theory explains in order of purchasing behavior of consumers under normal conditions as a motivational factor. On the other hand, consumer behavior may differ in unexpected or unpredictable situations obligatory such as covid-19 pandemic.

This obligation has caused consumers to abandon traditional purchasing behaviors and go towards to online purchasing channels more. With the adjustment to the new normal brought about by the Covid-19 pandemic, the trend of online purchasing was expected to increase. This thesis examines the relationship between consumers' changing online purchasing behavior and Maslow Hierarchy of Needs and its effects on e-commerce according to the demographic characteristics of the participants.

The coronavirus epidemic creates significant effects in various areas of life in Turkey and the world. Many countries are making extraordinary efforts to handle with this virus. It is predicted that the epidemic, in which great efforts have been made to bring under control, will also change the attitude and behavior of consumers towards e-commerce according to their demographical features.

This study consists of eight chapters including introduction part. In the second chapter of the study, literature background for definition, advantages and disadvantages, factors that effects consumer behavior, covid-19 pandemic in detail. In the third part, e-commerce platforms in Turkey are explained. In the fourth chapter, data and method theoretical framework and hypothesis of the thesis are discussed. After conducting the survey, findings and statistical analysis of the study are given and analyzed in chapter five. In the sixth part, results and discussion are given. Then, conclusion completed in the seventh part and suggestions are given for the further studies. Finally, limitation of the study is discussed in eight parts.

2. LITERATURE REVIEW

2.1 FACTORS THAT EFFECT CONSUMER BEHAVIOR

"All marketing decisions are based on assumptions and knowledge of consumer behavior" (Hawkins and Mothersbaugh 2010). There are numerous elements influencing consumer behavior. These all elements together shape consumer behavior. Because of effect of different variables, purchasers respond or react to showcasing program in an unexpected way. For a similar item, value, advancement, and dissemination, their reactions contrast altogether. According to Kotler et al. (2013) consumer shopping behavior is the study of how individuals, groups and organizations select, buy, use and dispose of goods, service, idea, or experiences to satisfy their needs and wants.

2.1.1 Sociocultural Factors

Consumers' buyer behavior and the coming about buying choice are unequivocally affected by social, individual and mental qualities. A comprehension of the impact of these factors is basic for advertisers so as to create reasonable advertising blends to claim to the objective client (Rani 2014, pp. 52-61).

2.1.1.1 Culture

Culture is significant with regards to understanding the necessities and practices of a person. Fundamentally, culture is the piece of each public and the significant reason for individual needs and conduct. The impact of culture on purchasing conduct fluctuates from nation to nation in this manner advertisers must be cautious in dissecting the way of life of various gatherings, districts or even nations (Rani 2014, pp. 52-61).

2.1.1.2 Subculture

A society made out of a few sub-cultures in which individuals can distinguish. Subcultures are gatherings of individuals who share similar qualities dependent on a typical experience or a comparable way of life all in all. Each culture contains various subcultures, for example, religions, nationalities, geographic locales, racial gatherings and so on. Advertisers can utilize these gatherings by dividing the market into different little bits (Rani 2014, pp. 52-61).

2.1.1.3 Social class

Social classes are characterized as gatherings more or less homogenous and positioned against each other as indicated by a type of social chain of command. Regardless of whether its enormous gatherings, we typically find comparable qualities, ways of life, interests and practices in people having a place with a similar social class. Each society has some type of social class which is imperative to the advertisers in light of the fact that the purchasing conduct of individuals in guaranteed social class is comparative. Right now, exercises could be custom fitted as indicated by diverse social classes. A few investigations have additionally recommended that the social impression of a brand or a retailer is assuming a job in the conduct and buying choices of customers (Rani 2014, pp. 52-61).

2.1.1.4 Reference groups

Reference groups have potential in forming a person attitude or behavior. The impact of reference groups varies across products and brands. More generally, reference groups are defined as those that provide to the individual some points of comparison more or less direct about his behavior, lifestyle, desires or consumer habits. They influence the image that the individual has of himself as well as his behavior (Rani 2014, pp. 52-61).

2.1.1.5 Family

Family is the most influencing factor. Along these lines advertisers are attempting to discover the jobs and impact of the spouse, wife and kids. On the off chance that the purchasing choice of a specific item is impacted by spouse at that point the advertisers will attempt to focus on the ladies in their notice (Rani 2014, pp. 52-61). Family size is also having a significant role in consumer behavior. Family size is divided into 3 such as little family, enormous family, and joint family. If the size of the family little it will buy fundamentals in little amount yet on the off chance that the size of the family is enormous it will buy basic items like nourishment, garments, and so forth in large quantity to fulfil the need of each individual from the house (Kumar 2019).

2.1.1.6 Roles and statues

The situation of a person inside his family, his work, his nation club and his gathering of companions and so forth. This can be characterized as far as job and social status. It has lots of perspectives and exercises that an individual should have and do as indicated by his calling and his position busy working, his situation in the family, his gender, and so forth and desires for the individuals around him (Rani 2014, pp. 52-61).

2.1.2 Demographical Factors

Customer behavior doesn't continue as before or consistent in each circumstance it changes time to time. There are different components which influence customer behavior. As the change comes in these elements, purchaser conduct additionally changes.

2.1.2.1 Age and life stages

Age is the unit of time that measures the time of existence of an object or being. Paulins and Geistfeld (2003) indicated that age and marital status affects the store choice and shopping time. Newborn child, kid, youthful, youthful grown-ups, develop grown-ups, senior residents, etc. Our needs, needs, wants, and desires all change with

age (Kumar 2019). The lifestyle of a buyer will impact on his conduct and buying choices. For instance, a buyer with a sound and adjusted way of life will like to eat natural items and go to explicit supermarkets, will do some running consistently and along these lines will purchase shoes, garments (Rani 2014, pp. 52-61).

2.1.2.2 Occupation

The occupation of an individual has critical effect on his purchasing conduct. For instance, a promoting administrator of an association will attempt to buy business suits, while a low-level specialist in the same association will buy tough work garments. A buyer's occupation and buying power impact buying choices what's more, purchasing conduct. The pay level influences what shoppers can manage the cost of and the point of view towards cash. Individuals, who share comparative occupations, tend to have comparable preference for music, apparel and relaxation exercises. They for the most part associate with one another and share a similar sort of qualities and thoughts. Salary level effects on what purchaser can bear the cost of and point of view towards cash (Solomon 2004, p. 12).

2.1.2.3 Gender

We can arrange gender into two classifications—male and female. Women in our general public have begun buying the majority of the products things and other household merchandise, they can take free choices now. In any case, men still make most buying choices identifying with vehicles, TVs, fridges, cameras, and other purchaser durables. Subsequently, who will buy, the item, influence the study of shopper conduct (Kumar 2019). Kelly (1991) noted that “The traditional woman’s role (as wife, mother, and lady) has undergone change owing to the revolution in shopping heralded by the development of the department store”. Laermans (1993) stated that “Women were redefined as professional shoppers or consumers and their performance of their traditional roles was thoroughly ‘commodified’ or redefined in terms of commodities”. For ladies, the advancements stress on excellence and youth like hues, subject, and music make a sway though for men its endless supply of aspiration and

physical quality. Men will in general purchase instrumental and relaxation things while ladies will in general purchase emblematic and self-expressive products. By utilizing more established ladies looking more youthful in commercial interests to ladies while men are probably going to be slanted towards promotions demonstrating quality using a sound looking model, which is strong and youthful (Lakshmi 2017).

2.1.2.4 Economical features

Purchaser monetary circumstance has incredible effect on his purchasing conduct. On the off chance that the salary and investment funds of a client is high at that point he will buy progressively costly items. Then again, an individual with low salary and investment funds will buy cheap items (Rani 2014, pp. 52-61).

2.1.2.5 Life styles

Consumers' life style states how the individual lives and goes through cash. It is consolidated from experiences, current circumstance and innate attributes. The product decisions that customers make are identified with their way of life. A person's life style comprises of various way of life measurements (Khan 2006). These dimensions are activities describe how consumers spends their time like work, hobbies or vacations, interests of consumers' preferences and priorities like family, home or food, and opinions of consumers' feelings about different situations like politics or products (Plummer 1974, p. 34). These lifestyle measurements express an individual's kind of living. Way of life will impact shoppers' purchasing conduct and choices (Kotler and Armstrong 2009, p. 172).

2.1.2.6 Ethnocentrism

Buyer's tendency to purchase a privately made great over an outside item is known as consumer ethnocentrism (Ruyter et al. 1998). Ethnocentrism was first authored (Sumner 1906) to clarify the racist conduct. Presence of an in-gathering and out-gathering, partiality and inclination of in-bunch individuals and its components are the essential

issues in ethnocentrism approach. Lantz and Loeb (1996) expressed that apparent prevalence of the gathering individuals over the non-individuals so as to recognize and make a self-continued personality is of vital to this specific situation.

2.1.2.7 Hedonism

Purchasers for whom the pleasure in item utilization speaks to a perspective have been characterized as indulgent customers, and the conduct of over and again getting joy from utilization or shopping has likewise been alluded to as a type of indulgence. Hedonic consumption is a significant field in consumers' behavior, and it speaks to an example of utilization identified with passionate capabilities and an attention on supplementing enthusiastic fulfillment. It can be characterized as a measurement relating to the passionate, sensorial and dream parts of item use (Hirschman and Holbrook 1982). Hedonism has also been defined as a state of mind in which “pleasure is the highest beauty, [and] pleasure-seeking is a doctrine that is a life-style devoted to pleasure-seeking” (Hopkinson and Pujari 1999, p. 273).

2.1.2.8 Situational factors

Situational influences are defined with Belk (1974) as

“All those factors particular to a time and place of observation which do not follow from a knowledge of personal (intra-individual) and stimulus (choice alternative) attributes, and which have a demonstrable and systematic effect on current behavior”.

As indicated by Lancaster et al. (2002), situational factors are critical as far as influencing the customer purchasing conduct.

2.1.3 Incentive Factors

In this section, some important incentive factors will be examined.

2.1.3.1 Motivation

The degree of motivation moreover influences the purchasing conduct of clients. Each individual has various needs, for example, physiological necessities, natural needs, social needs and so on. The idea of the requirements is that, some of them are generally pressing while others are least pressing. Along these lines a need becomes a thought process when it is all the more pressing to coordinate the individual to look for fulfillment. Inspiration is straightforwardly identified with the need and is communicated in a similar sort of grouping as characterized in the phases of the customer purchasing choice procedure (Rani 2014, pp. 52-61).

2.1.3.1.1 Maslow's hierarchy of needs

Maslow's approach is a theory of motivation, in that it links basic needs-motives to general behavior (Wahba and Bridwell 1976). In other words, the basic needs/motives are linked to behavior through a theory of motivation.

Figure 2.1: Maslow hierarchy of needs



Source: McLeod, S. A. 2018. ¹Maslow's Hierarchy of Needs. May 2018.

One of the most astounding speculations about motivation has a place with Abraham Harold Maslow (Latif 2018, p. 576). As indicated by the inspiration hypothesis set

¹ McLeod 2018, <https://www.simplypsychology.org/maslow.htm>, [accessed date: 09.12.2020]

forward by Maslow in 1943, he indicated that there is a hierarchy of needs established on existence which can be communicated as the accomplishment of objectives inside individuals (Güzel & Barakazı 2018, p. 1002).

As indicated by Maslow Hierarchy of Needs, the requirements of people are in advances, levels or evaluations. So, going to the following level, step or evaluation, the requirements of a lower level, step or evaluation should be met (Güzel & Barakazı 2018).

Maslow's hierarchal requirement is dedicated as a theoretical psychology concept which consists of five stages of the individual requirements in a pyramid (Lee and Hanna 2015). The fundamental requirements of the individuals comprise which are physiological needs, safety needs, love and belongings need, self-esteem needs and self-actualization (Harrigan & Commons 2015). Maslow's hierarchy of needs make attention on the behavior and attitude of the consumers from all segments which supports setting the pricing policy (Rasskazova et al. 2016). These requirements indicate and judge the shape of the shopping behavior of the customers.

Maslow acknowledges physiological necessities as the main requirements and except if the requirements at this level are met, he accepts that all different necessities become auxiliary (Maslow 1954, pp. 35-38). Subsequent to meeting the physiological requirements of the person in the initial step, the second step in the progressive system of requirements is safety needs. As indicated by Maslow, individuals need to live all together, consistency, and control in their lives (Maslow 1954, pp. 39-43). After the requirements of physiological in the initial step and safety in the subsequent advance, sensations of belonging and love arise, this is the third degree of human necessities. Maslow contends that the requirement for relational connections will inspire behavior. (Maslow 1954, pp. 43-44). The fourth step in the Hierarchy of Needs is the requirement for regard. Regard needs are separated into two classes by Maslow. Confidence (decency, achievement, authority, freedom) in the primary class and desire for regard from others (eg status, notoriety) in the subsequent class (Maslow 1954, pp. 45-46). Self-actualization needs imply that an individual is looking for his self-awareness also, the most noteworthy encounters, opening his/her latent capacity, acknowledging himself/herself. Abraham Maslow characterizes the most significant level of the

pecking order of requirements as the longing for the person to be the best he/she can be, the longing to achieve everything conceivable and to be as high as could reasonably be expected, and calls attention to that the conspicuous rise of these necessities usually happen after the requirements of physiological, safety, love and regard are met (Maslow 1954, p. 46).

2.1.3.2 Perception

Perception is the procedure through which these sensations are chosen, sorted out and decipher to shape important image of the world. Individuals have a likelihood to frame various view of similar boosts because of three perceptual procedures: specific consideration, particular bending and specific maintenance (Kotler and Armstrong 2009).

2.1.3.3 Learning

Learning originates from activity. Learning delineates changes in an individual's conduct that rise up out of experience. Individuals can likewise learn by watching others without having their own individual experience. Learning can happen even unknowingly. Buyers can murmur numerous jingles and perceive a few brands even without utilizing those themselves. This is known as accidental learning. Individuals can become familiar with constantly. Buyers' information on the world changes continually as they are presented to new upgrades and circumstances. They can get input that permits them to change conduct when winding up in a similar sort of circumstance than previously (Kotler & Armstrong 2009; Solomon 2004) The purchaser who has negative involvement in an espresso is bound to stay away from that brand later on since he recalls the past involvement in that.

2.1.3.4 Attitudes and beliefs

Through learning and encountering, shoppers obtain beliefs and attitudes. A belief is a dream that shopper has on something. It is very well may be founded on genuine

information, confidence or feeling. Outer impact like family or neighbors joined with learning produces convictions that will impact shoppers' purchasing conduct. Diverse sort of individuals has various perspectives concerning religion, legislative issues, nourishment, music and some more. The demeanor depicts shoppers' emotions or assessments toward an article or thought. The two convictions and perspectives are difficult to change. Those are tied down somewhere down in buyers mind and can be part of an individual's character (Kotler & Armstrong 2009).

2.1.3.5 Personality

Personality decides how we see ourselves our general surroundings just as how others see us. Self-concept is a multi-dimensional and complex term Kardes et al. (2011) depicts the self-idea as follows “Self-concept is often described as the totality of an individual’s thoughts and feelings regarding him/herself as an object”. He indicates that the picture individuals hold about their selves framed by perspectives and convictions. Numerous brands have built up a picture and character that compare with buyers' qualities and attributes. It permits consumers to communicate through brand decisions (Kardes et al. 2011).

2.2 DEFINITION OF E-COMMERCE

When we look at the literature on electronic commerce, it is seen that there are many academic definitions. As the shortest and broadest definition, it can be described as a type of trade made through virtual networks, where all kinds of goods and services are bought and sold, operating all over the world and allowing shopping from different continents and regions.

OECD (Organization for Economic Development and Cooperation) has defined E-Commerce as “Performing all transactions related to commercial activities involving institutions and individuals through computer networks” (OECD 2001, p. 8). Based on this definition, the electronic trade process is carried out over cyber networks, and it can be said that the buyers and sellers do not have to face each other regardless of the classical trading methods.

According to World Trade Organization's definition "Electronic commerce the production, advertising, sale and distribution of products via telecommunication networks"²

Based on this definition, it is possible to say that e-commerce has four main elements and the process continues dynamically between these elements. There are also side elements within these basic elements. The interaction between the elements has a dynamic structure. In other words, there is no obstacle in terms of time and space elements between the parties and they can shop with each other at any time.

According to the definition of the United Nations International Trade Commission (UNCITRAL), all kinds of data messages within the scope of commercial activities are exchanged electronically by using fewer complex data methods such as fax, as well as electronic and exchange, internet and e-mail (UNCITRAL 1996, pp. 3-4) In this definition, the tools used in electronic commerce are highlighted. Accordingly, internet and e-mail are used in all kinds of electronic shopping. As stated in the definition, buying and selling transactions are carried out by fax, but as of today's conditions, the emergence and continuation of more advanced technological tools has reduced the use of fax.

Based on these definitions, it can be said that entrepreneurs and consumers have the opportunity to shop more easily as a result of the advantages of electronic commerce. Providing the opportunity to shop at any time is the key factor here. The advantages it creates in terms of price and product diversity have also been an important factor in terms of preferability.

2.3 ADVANTAGES AND DISADVANTAGES OF E-COMMERCE

There's no uncertainty that the capacity to sell online has made numerous organizations reasonable and productive. Like all plans of action, e-commerce has its points of interest and burdens. It's imperative to investigate the two points of view since favorable circumstances for purchasers may wind up turning into a burden for internet business organizations.

² World Health Organization 1998, http://www.wto.org/english/news_e/pres98_e/pr96_e.htm, [accessed date 17 November 2020]

2.3.1 Advantages of E-Commerce

E-commerce advantages can be signified as 3 different points which are advantages to organizations, advantages to consumers and advantages to society.

To begin with advantages to organizations, utilizing e-commerce, association can grow their market to national and global markets with least capital speculation. “An organization can easily locate more customers, best suppliers and suitable business partners across the globe” (Vadwala 2017). Besides, e-commerce encourages association to diminish the expense to make process, circulate, recover and deal with the paper-based data by digitizing the data and furthermore e-business improves the brand picture of the organization. The fact that the payment processes can be carried out in a virtual environment is a positive factor for companies and banks. In this way, the collection periods for banks are shortened, and for companies, the obligation to pay by hand is eliminated. From a market perspective, this way, the liquidity difficulty is eliminated, albeit partially.

E-commerce has many advantages to consumers. Firstly, fast delivery of items. It gives client more choices to look at and choose the less expensive and better choice. A client can put audit remarks about an item and can perceive what others are purchasing or see the survey remarks of different clients before making a last purchase. Promotion and launch processes can be made more easily through electronic commerce. Nowadays, where internet is a common tool, product promotions can be made more widely. Promoting products by advertising on websites is used as a widely followed method today.

Also, it has advantages to society in terms of air pollution, high traffic. Clients need not to head out to shop an item in this way less rush hour gridlock on street and low air contamination internet business assists lessening with costing of items so less princely individuals can likewise manage the cost of the items.

2.3.2 Disadvantages of E-Commerce

Various risk factors that may arise in e-commerce can be considered as a disadvantage mainly technical or non-technical.

When we look at the technical disadvantages, the absence of framework security, dependability or measures attributable to poor usage of ecommerce. The issue of electronic commerce sites not being sufficient in terms of security can be considered as one of the disadvantages. It is essential that users who make transactions from sites that have started to make new names in the market should be careful about this issue.

As Vadwala (2017, p.119) explained this situation as:

“Software development industry is still evolving and keeps changing rapidly. In many countries, network bandwidth might cause an issue as there is insufficient telecommunication bandwidth available. Special types of web server or other software might be required by the vendor setting the e-commerce environment apart from network servers”.

When we look at the non-technical disadvantages, absence of touch or feel of items during internet shopping. Web is not less expensive and badly designed to use for some, potential clients enjoying one living in remote regions. Client may not confide in the site being obscure unremarkable merchant. Such question makes it tricky to make client move from physical stores to on the web/virtual stores.

2.4 E-COMMERCE HISTORY

The innovation of internet business returns to 1960's. It begins with the Electronic Data Interchange (EDI), which is information exchanges and relations between organizations through uncommon gathering networks and protocols. EDI is as yet utilized in business to business (B2B) online business today. Moreover, internet and the world wide web have contributed to the improvement of e-commerce (Meyer & Taylor 2000, pp.107-108). There are two definite instruments in the historical progress of e-commerce. One of them is the enhancements in data innovation, for example, intelligent multimedia administrations, and TV. The other one is market liberalization and globalization. Additionally, the expansion of financial reliance among nations added to the improvement of web-based business. These upgrades began the restructuring of the method for working together in industrialized countries through information intensive

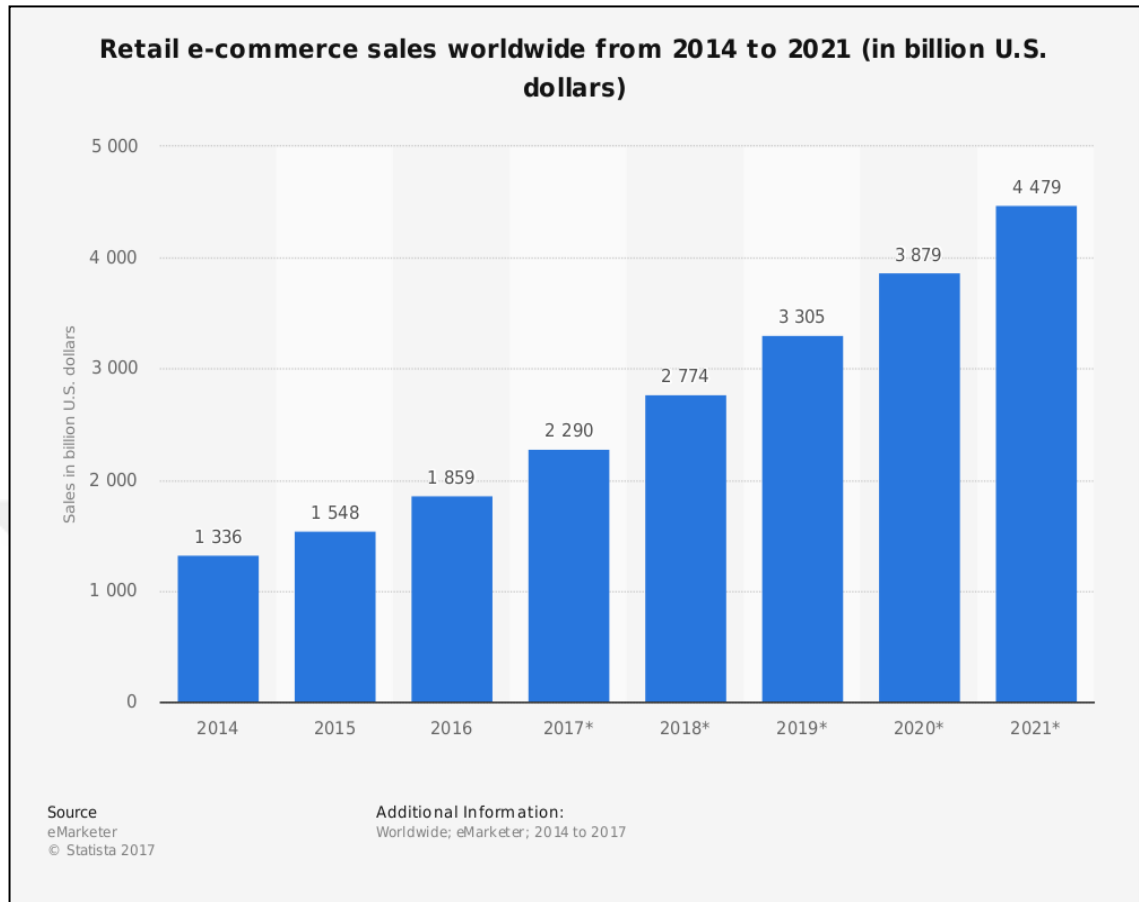
services. In this manner, the utilization of online business has got one of the most significant highlights of information society (Korkmaz 2002).

2.4.1 E-Commerce in World

Retail online business deals overall were 2290 billion United States Dollars (USD) and are required to ascend to 2777 billion out of 2018, as indicated by statista. Consequently, worldwide online business deals are anticipated to show 20 percent of development, which is a gigantic number for business and certainly a consistent pattern without any indications of decrease. Global ecommerce sales amounted to nearly 3.5 trillion dollars worldwide in 2019 proving ecommerce is an increasingly lucrative option for businesses.

E-commerce sales have been growing constantly and for good reason. Online shopping is one of the most popular online activities. The sales are projected to increase from 1.3 trillion in 2014 to 4.5 trillion in 2021 (Statista 2019).

Figure 2.2: Retail e-commerce sales worldwide from 2014 to 2021

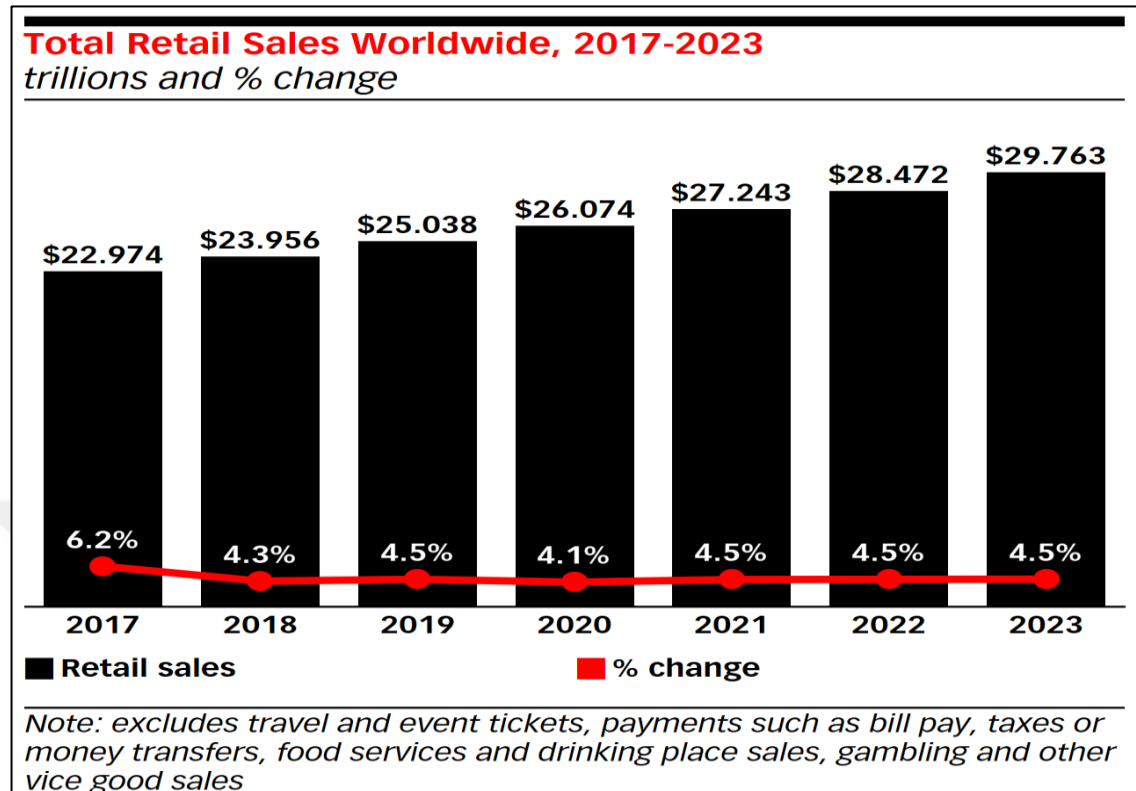


Source: Statista (2017) The Retail E-commerce Sales Worldwide from 2014 to 2021. June 2017³

It is evaluated that the worldwide retail market will reach \$25.038 trillion out of 2019, an expansion of 4.5 percent of and slight increasing speed in development versus the earlier year. Simultaneously, it speaks to a stamped decrease from the five years going before that, when worldwide retail deals developed somewhere in the range of 5.7 percent of and 7.5 percent of every year.

³ Statista 2017, <https://www.statista.com/statistics/379046/worldwide-retail-e-commerce-sales/>, [accessed date 19 March 2021]

Figure 2.3: Total retail sales worldwide forecast by e-marketer



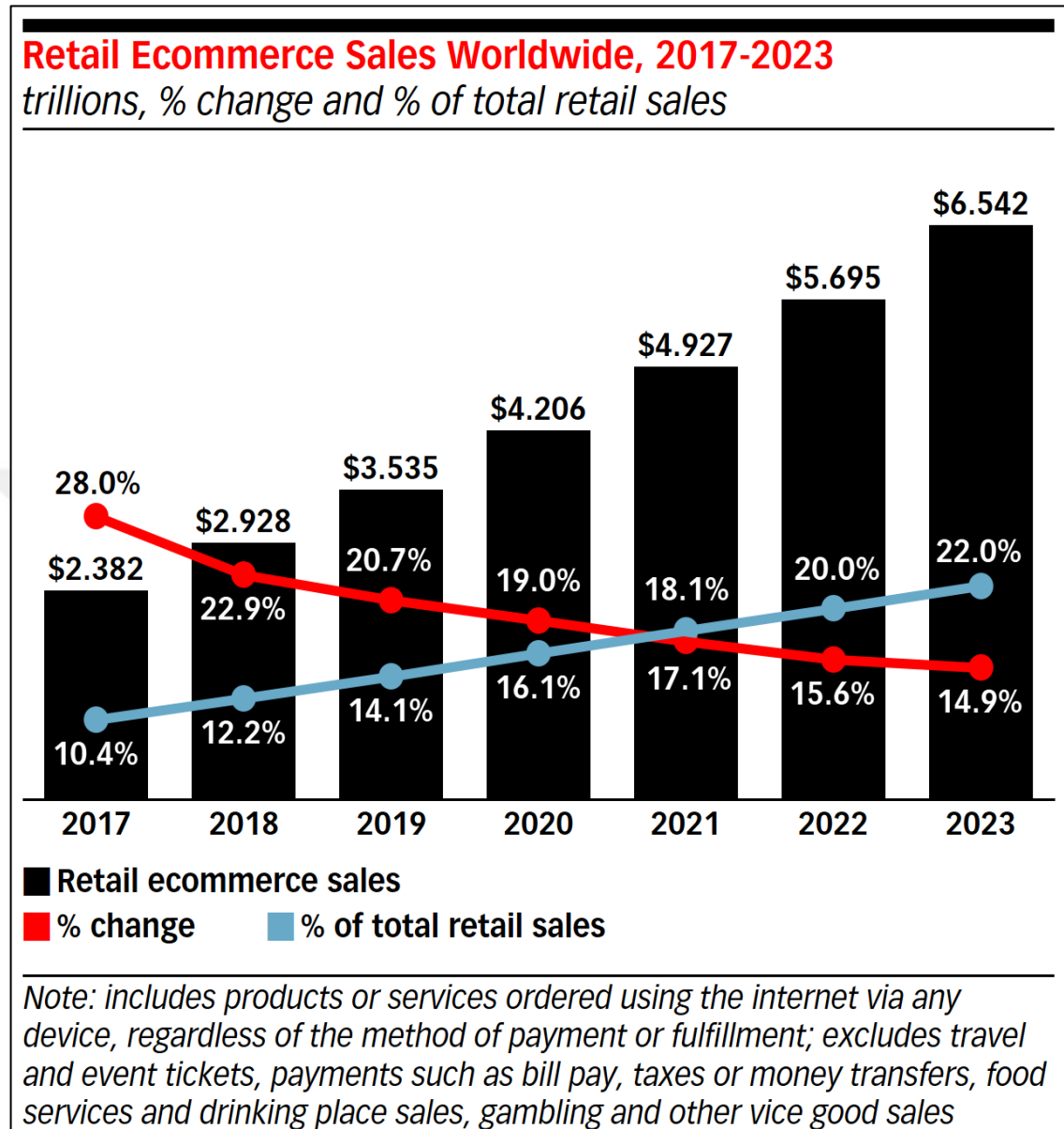
Source: eMarketer, Global E-Commerce Report. May 2019⁴

This purchaser spending lull during recent years reflects developing monetary vulnerability and a hosing financial condition across numerous edges of the globe. China's economy, which has been flooding over the better piece of the previous decade, has seen gross domestic product (GDP) development level off impressively. Gross domestic product development in Europe has additionally slowed down on a few fronts, and even a hot United States (US) customer economy seems to have its greatest days in the rearview reflect.

During this background of declining force, we gauge that worldwide online business will rise 20.7 percent of in 2019 to \$3.535 trillion.

⁴ eMarketer 2019, <https://www.emarketer.com/content/global-ecommerce-2019>, [accessed date 17 November 2020]

Figure 2.4: Retail e-commerce sales worldwide forecast by eMarketer

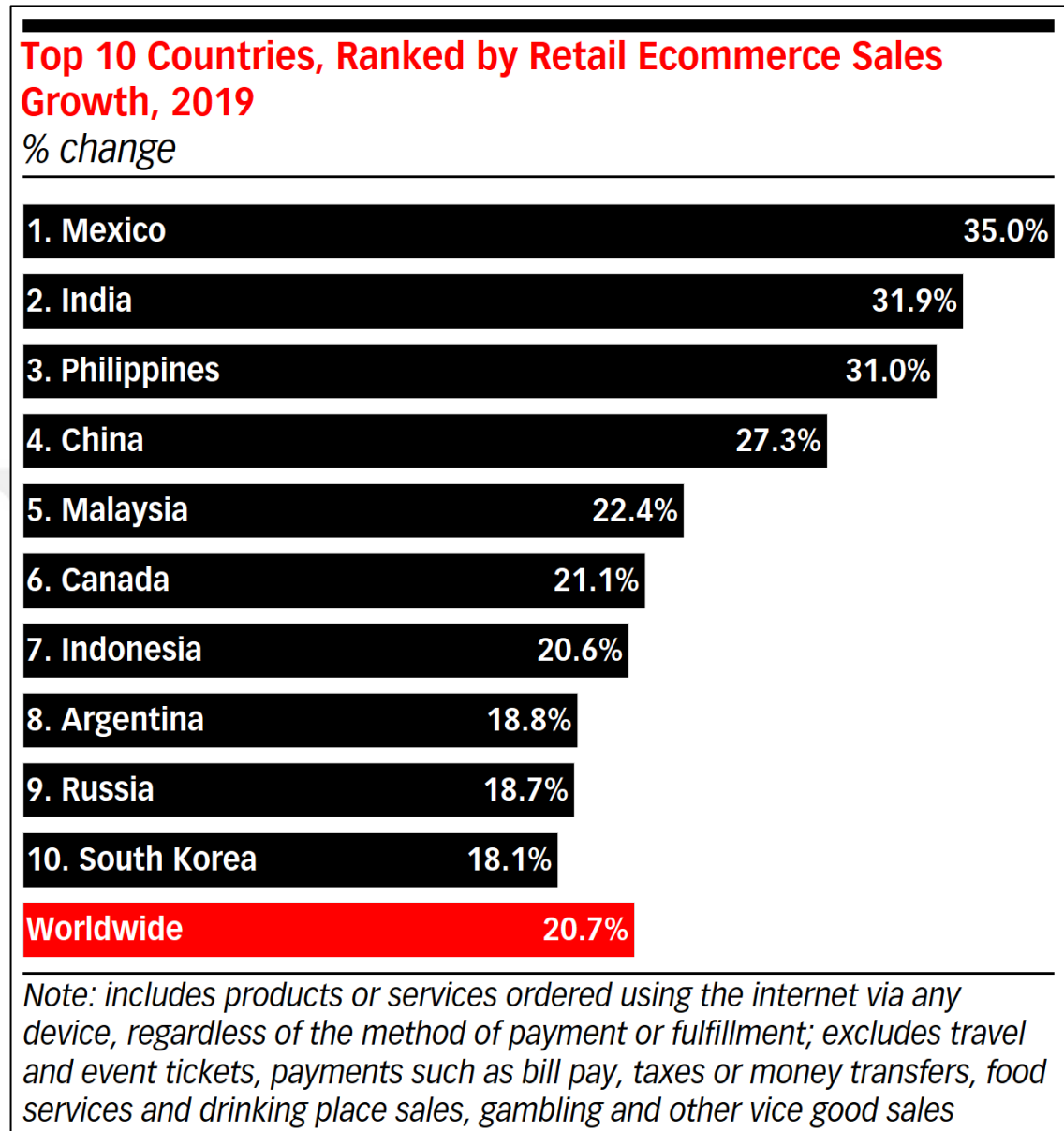


Source: eMarketer, Global E-Commerce Report. May 2019⁵

This measurement unmistakably shows how internet business is turning into an increasingly more significant piece of worldwide commerce. It's developing so rapidly that it's relied upon to make up an astounding 17.5 percent of retail deals worldwide by 2021.

⁵ eMarketer 2019, <https://www.emarketer.com/content/global-ecommerce-2019>, [accessed date 17 November 2020]

Figure 2.5: Regional retail e-commerce sales worldwide by e-marketer



Source: eMarketer, Global E-Commerce Report. May 2019⁶

In 2019, the top worldwide web-based business market will be China, with \$1.935 trillion in internet business deals—multiple occasions more prominent than the US at No. 2 with \$586.92 billion. It's difficult to comprehend, yet China as of late outperformed the US in internet business deals in 2013 just because. From that point forward, it has immediately extended the edge.

⁶ eMarketer 2019, <https://www.emarketer.com/content/global-ecommerce-2019>, [accessed date 17 November 2020]

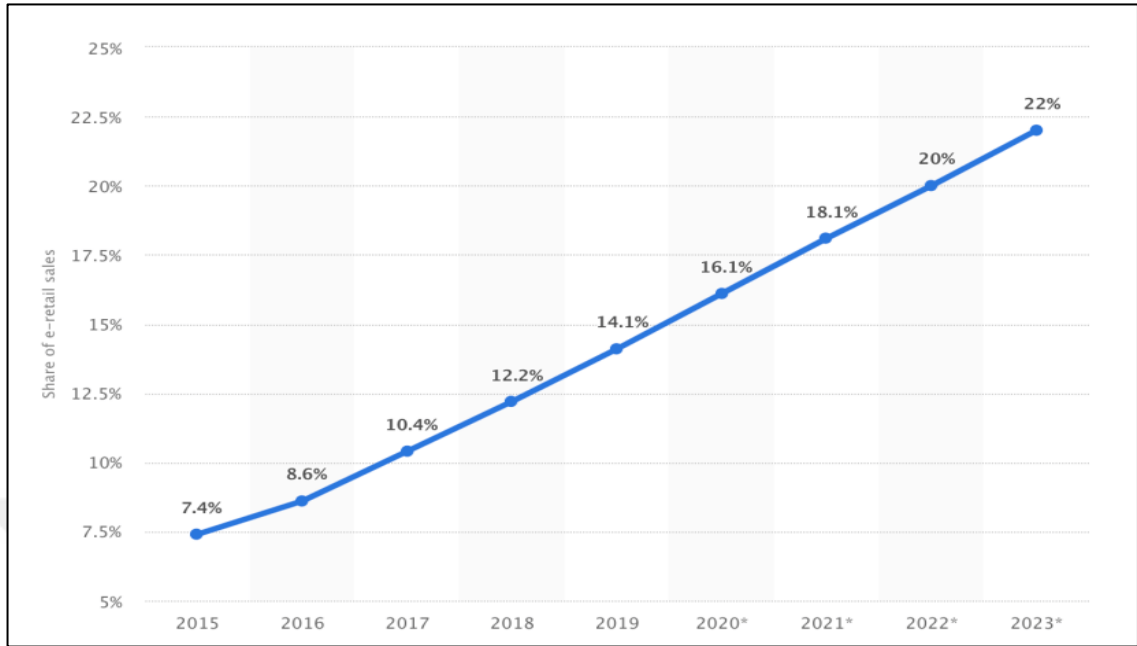
Figure 2.6: Top 10 Countries rank by e-marketer

Top 10 Countries, Ranked by Retail Ecommerce Sales, 2018 & 2019			
<i>billions and % change</i>			
	2018	2019	% change
1. China*	\$1,520.10	\$1,934.78	27.3%
2. US	\$514.84	\$586.92	14.0%
3. UK	\$127.98	\$141.93	10.9%
4. Japan	\$110.96	\$115.40	4.0%
5. South Korea	\$87.60	\$103.48	18.1%
6. Germany	\$75.93	\$81.85	7.8%
7. France	\$62.27	\$69.43	11.5%
8. Canada	\$41.12	\$49.80	21.1%
9. India	\$34.91	\$46.05	31.9%
10. Russia	\$22.68	\$26.92	18.7%
<i>Note: includes products or services ordered using the internet via any device, regardless of the method of payment or fulfillment; excludes travel and event tickets, payments such as bill pay, taxes or money transfers, food services and drinking place sales, gambling and other vice good sales; *excludes Hong Kong</i>			

Source: eMarketer, Global E-Commerce Report. May 2019⁷

⁷ eMarketer 2019, <https://www.emarketer.com/content/global-ecommerce-2019>, [accessed date 17 November 2020]

Figure 2.7: E-commerce share of total global retail sales from 2015 to 2023



Source: Statista, Global E-Commerce Report. May 2019⁸

In 2019, e-retail sales accounted for 14.1 percent of all retail sales worldwide. This figure is expected to reach 22 percent in 2023. Online shopping is one of the most popular online activities worldwide with global e-retail sales reaching 3.5 trillion U.S. dollars in 2019.

2.4.2 E-Commerce in Turkey

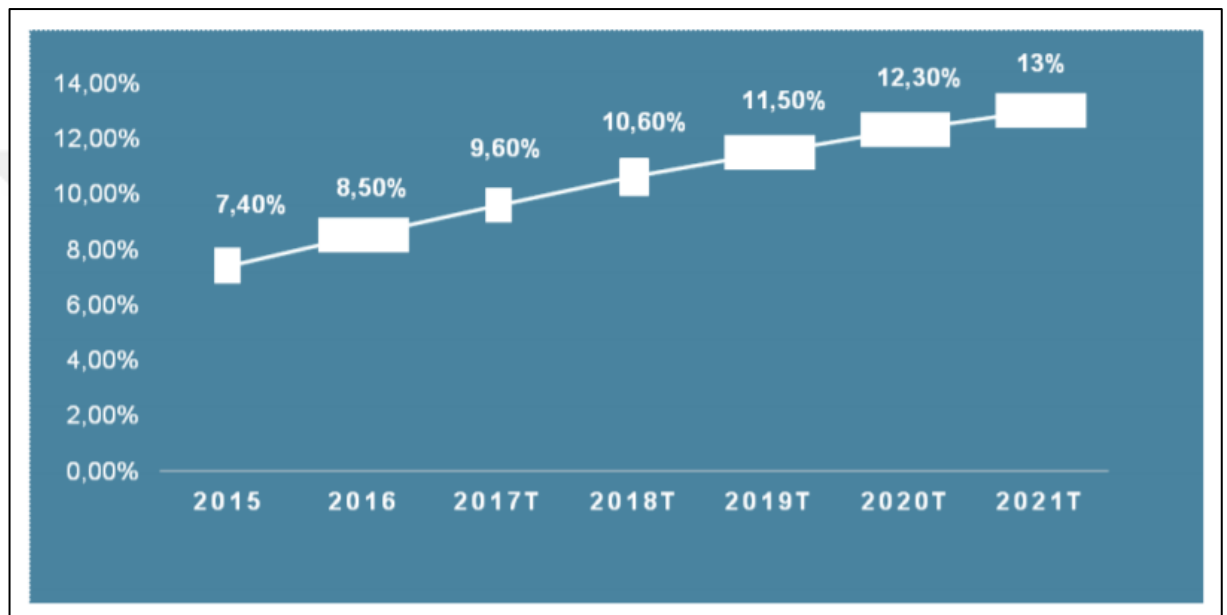
E-commerce activities in Turkey began in the late 1990s. In Turkey, contemplation in regard to internet business began in 1997 just because with a gathering sorted out by the Supreme Council for Science and Technology (BTYK). At that gathering, it was chosen to set up a stirring gathering to set up an Electronic Commerce Network and to extend electronic business in our nation, the Undersecretariat of Foreign Trade was allocated the assignment of planning these investigations. Türkiye Bilimsel ve Teknolojik Araştırma Kurumu (TÜBİTAK) was appointed the secretariat's obligations. According to that choice, legitimate, specialized and money related working gatherings were framed inside the body of the Electronic Commerce Coordination Board (ETKK), under

⁸ Statista 2019, <https://www.statista.com/statistics/534123/e-commerce-share-of-retail-sales-worldwide/>, [accessed date 3 March 2021]

the chairmanship of the Undersecretariat of Foreign Trade and the examinations at that point started.

The global increase in online trade/retail extended its influence to Turkey, with the share of online commerce within the total retail figure rising up to 4.1 percent of in Turkey.

Figure 2.8: Share of online commerce within the total retail in Turkey

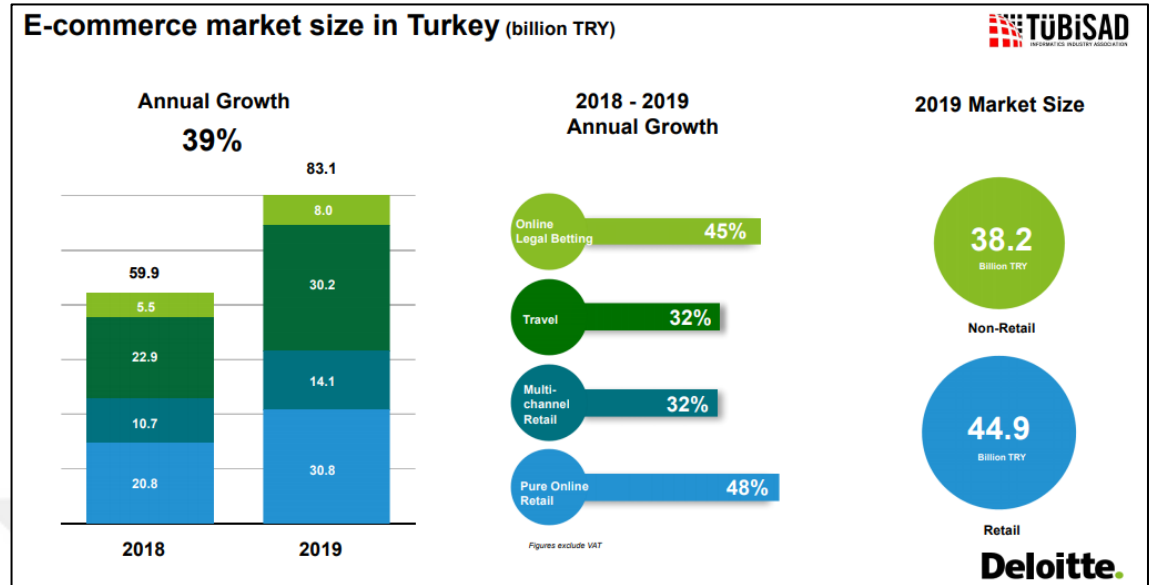


Source: TUSIAD, (2017) The New Growth Engine in the Digital World: e-Commerce. June 2017⁹

Information Industry Association (TUBISAD) and published in cooperation with Deloitte Turkey, Turkey e-commerce Market Size in the industry report their size respectively; 38.2 billion Turkish Liras (TL) for non-retail transactions and 44.9 billion TL for retail transactions. 2019 annual. Looking at the growth values, a 39 percent of growth rate was observed in TL terms.

⁹ TUSIAD 2017, http://www.tubisad.org.tr/en/images/pdf/tubisad_2019_ecommerce.pdf, [accessed date 16 May 2021]

Figure 2.9: E-Commerce market size in Turkey by TUBISAD



It is seen that multi-channel online retail, which is one of the two subheadings of online retail, provides a return of 14.1 billion TL. Other the contribution of only online retail, which is the title, is 30.8 billion TL. The adoption of marketplace platforms by consumers and the improvement of the marketplace business model, suppliers. It can be said that the progress made in the past 2 years has a positive feedback. These ratios Turkey closely follows the average of developing countries.

2.5 COVID-19 CRISIS

The crisis has been defined as “Any situation that is threatening or could threaten to harm people or property, seriously interrupt business, significantly damage reputation and/or negatively impact the bottom line” (Bernstein 2013). According to definition, crisis can affect all most all the society when nobody knows about its capability and power even though there is no any roadmap or information in order to solve it.

COVID-19 is one of the biggest healthy crises which affect all most all the World and Turkey. It is the disease caused by a new coronavirus called SARS-CoV-2. According

¹⁰ TUSIAD 2017, http://www.tubisad.org.tr/en/images/pdf/tubisad_2019_ecommerce.pdf, [Accessed date 16 May 2021]

to World Health Organization (WHO) announcement, it has been defined as epidemic on 11.03.2020.¹¹

As of 15 November, over 53.7 million cases and 1.3 million deaths have been reported globally in 2020.¹²

Coronavirus epidemic crisis is still keep going to growing up globally by its negative effects in every part of our lives such as economic, social and health. Almost all countries are trying to keep under their control of epidemic crisis. Therefore, each country applied its own rules to prevent epidemic crisis such as lockdowns, or gradual shutdowns.

The restaurants, bars, cafes, shopping malls, schools, shops and gyms have been closed on 16.03.2020 and first curfew declared on 21.03.2020 gradually in Turkey by Ministry of Interior.¹³

Consumers; who get away from shopping areas, spend more time in social media and spend long days at home by declared lockdowns and it affected buying behaviors of consumers due to obey rules and keep themselves safe.

2.5.1 Covid-19 Impact on E-Commerce in Turkey

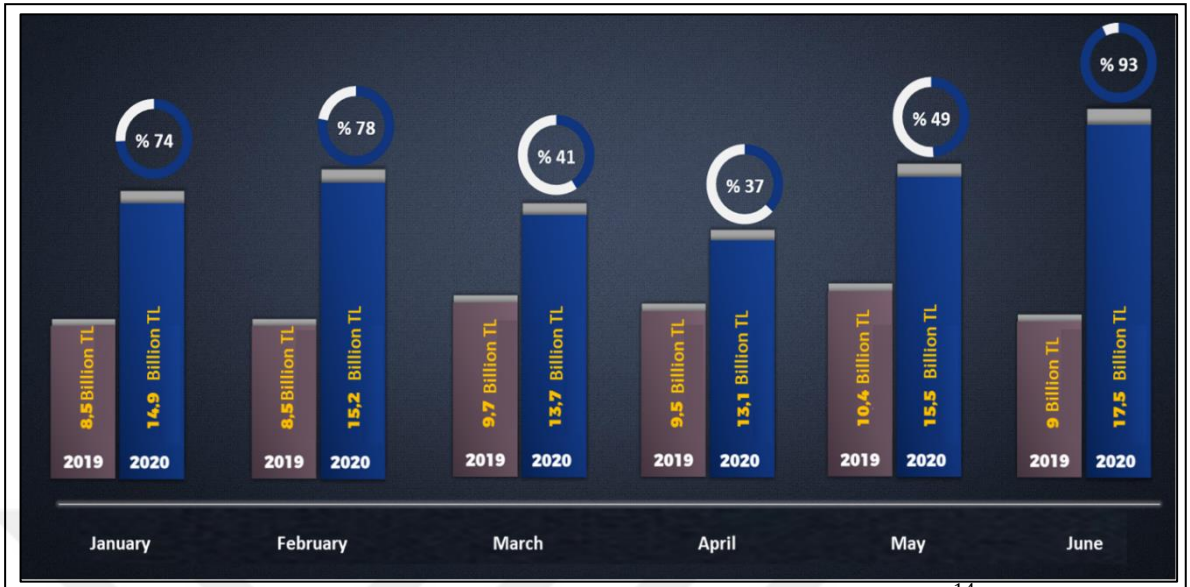
According to figure 2.11 Monthly Comparison of E-Commerce Volume, which has been published by Turkey Ministry of Commerce, E-Commerce volumes has been increased in monthly comparison between 2019 and 2020 for first 6 months.

¹¹ WHO 2020, <https://www.who.int/publications/m/item/weekly-epidemiological-update---17-november-2020> [Accessed date 10 January 2021]

¹² Mc Kinsey 2020, <https://mck.co/3ygbHY2>, [accessed date 10 March 2021]

¹³ İçişleri Bakanlığı 2020, <https://www.icisleri.gov.tr/81-il-valiligine-koronavirus-tedbirleri-konulu-ek-genelge-gonderildi> [Accessed date 3 January 2021]

Figure 2.10: Monthly comparison of e-commerce volume in Turkey



Source: Minister of Commerce, (2020) First 6 Months E-Commerce Data, August 2020¹⁴

According to Figure 2.10 Annually Comparison of E-Commerce Volume by the Sectors for March, April, May, food supermarket, chemicals, white goods, mom and baby markets volume has been increased when it is compared by 2019 for March, April and May. On the other hand, service market volume has been decreased dramatically by the starting of COVID-19 crisis.

Figure 2.11: Annually comparison of e-commerce volume by the sectors for March, April, May



Source: Minister of Commerce, (2020) First 6 Months E-Commerce Data, August 2020¹⁵

¹⁴ Minister of Commerce 2020, <https://bit.ly/3y7REee>, [Accessed date 10 February 2021]

¹⁵ Minister of Commerce 2020, <https://bit.ly/3y7REee>, [Accessed date 10 February 2021]

Ruhsar Pekcan, who is former Minister of Commerce, underlined that “Food and markets saw the highest rise in transactions via debit and credit cards, up 400 percent of on an annual basis, followed by the software sector (over 100 percent of), garden, furniture and decoration sector, clothing (up 95 percent of), and household appliances (up 90 percent of)”. The volume of the payments via bank cards for Internet trade amounted to 58.1 billion Turkish liras (some \$9 billion), or 63.3 percent of the total, she noted.¹⁶

According to Nielsen Turkey Chief Executive Officer (CEO) Didem Şekerel Erdoğan (2020):

*“In general, e-commerce in Turkey was already rising even before COVID-19 and has performed a strong growth in the country in recent years. Online retail sales recorded 43 percent of value growth in 2019, compared to the previous year. So, actually COVID-19 is an accelerator for the e-commerce transformation. We see these in personal care, home care, especially in baby food but also for tea and coffee categories. COVID-19 became a catalyst to more use online from all perspectives”.*¹⁷

¹⁶ Anadolu Ajansı 2020, <https://www.aa.com.tr/en/economy/turkey-e-commerce-volume-up-64-in-h1-amid-covid-19/1947794>, [Accessed date 10 February 2021]

¹⁷ Hürriyet Daily News 2020, <https://www.hurriyetdailynews.com/covid-19-proves-as-catalyzer-in-e-commerce-in-turkey-155217>, [Accessed date 10 February 2021]

3. E-COMMERCE PLATFORMS IN TURKEY

Market places have digital competencies such as products visited, add to cart, purchase, and customer behavior reports. It helps to increase the service quality by giving feedback to the enterprises to increase the customer experience.

Market places have teaching and accelerating effect on companies with no market experience or e-commerce operational experience. It also constitutes one of the important channels in the omni-channel strategy of many companies. Testing of new product groups, new markets. It also plays a supportive role in the first market entry strategy for companies.

3.1 GİTTİGİDİYOR

According to Gittigidiyor website information, they are Turkish e-shopping commercial marketplace that give buyers and providers a stage to offer closeouts, stores, bargains, and fixed value postings. The organization is a subsidiary of eBay and offers a wide scope of items, from attire and assistants to collectibles, for example, mint pieces. Established in 2001, the organization reports a daily hit of 500,000 guests for every day. They have 230 employees in their organization.

Gittigidiyor is one of Turkey's most preferred shopping sites with 117 thousand seller and 33 million registered users and. It offers millions of products to users in a total of 50 categories from electronics to decoration, cosmetics to mother baby products, fashion to supermarket. It is home to hundreds of domestic and foreign big brands, as well as small and medium sized enterprises (SME) and retailers. They bring Turkish brands and products to 185 million active users in 190 countries.¹⁸

¹⁸ Gittigidiyor 2021, <https://www.gittigidiyor.com/hakkimizda/biz-kimiz>, [Accessed date 10 May 2021]

3.2 HEPSİBURADA

According to Hepsiburada website information, they are the main web-based business organization in Turkey and its district. It is associating clients, providers and business people driving the computerized change in Turkey and supporting nearby economy by building up the retail division.

Established in 2001 as part of Doğan Online, Hepsiburada is the leading holding company for internet and technology.

Hepsiburada now has in excess of 200 million month to month visits, with a huge number of item types across roughly 40 classifications. Hepsiburada keeps on extending its tremendous item go, administrations, ventures and coordinated efforts consistently.

Hepsiburada is the largest e-commerce company in the region covering Eastern Europe, the Middle East, Africa (EEMEA) and Russia, with a net turnover of 1 billion TL.¹⁹

3.3 N11

Doğuş Planet was established in June 2012 in partnership with Doğuş Group and SK Group, one of the largest groups in South Korea, to operate in the e-commerce sector. As an e-commerce investment, Doğuş Planet has opened n11.com on 2013, the auspicious address of shopping, which brings thousands of brands and stores together with millions of customers.

N11.com offers users a shopping experience with electronic textiles, kitchenware and millions of products that appeal to different needs and tastes.

They have 18 Million users and greater than 100 retail suppliers. N11 has completed 81.2 Million product sales and they have reached 2.6 Billion visitors and 7.8 Billion TL trade volume on 2018.²⁰

¹⁹ Hepsiburada 2021, <https://www.hepsiburada.com/about-us>, [Accessed date 10 May 2021]

²⁰ N11 2021, <https://www.n11.com/genel/hakkimizda-65207> [Accessed date 10 May 2021]

3.4 TRENDYOL

Trendyol has been founded in in 2010. It is an e-commerce platform in Turkey and the Middle East North Africa Region (MENA). According to the announced data, 98 thousand enterprises and 1.1 million retail sellers, most of which are SMEs, sold 347 million products through the platform in 2020.

Trendyol has more than 30 million product types in many categories such as fashion, electronics, home and furniture, market, food, mother-child and cosmetics. While the number of active customers who made at least one shopper in 2019 on the platform was 9.2 million, this number reached 19.3 million in 2020. In the last quarter of 2020, an average of 1.1 million packages per day were delivered to Trendyol users.²¹

²¹ Webrazzi 2021, <https://webrazzi.com/2021/01/13/2020de-trendyolda-347-milyon-adet-urun-satisi-gerceklesti/>. [Accessed date 16 May 2021]

4. DATA AND METHOD

According to Harrigan & Commons (2015) the fundamental requirements of the individuals comprise which are psychological needs, safety needs, love and belongings need, self-esteem needs and self-actualization. These needs are determined as Maslow's Hierarchy of Needs. Furthermore, Rasskazova et al. (2016) remarked that these requirements indicate and judge the shape of the shopping behavior of the customers.

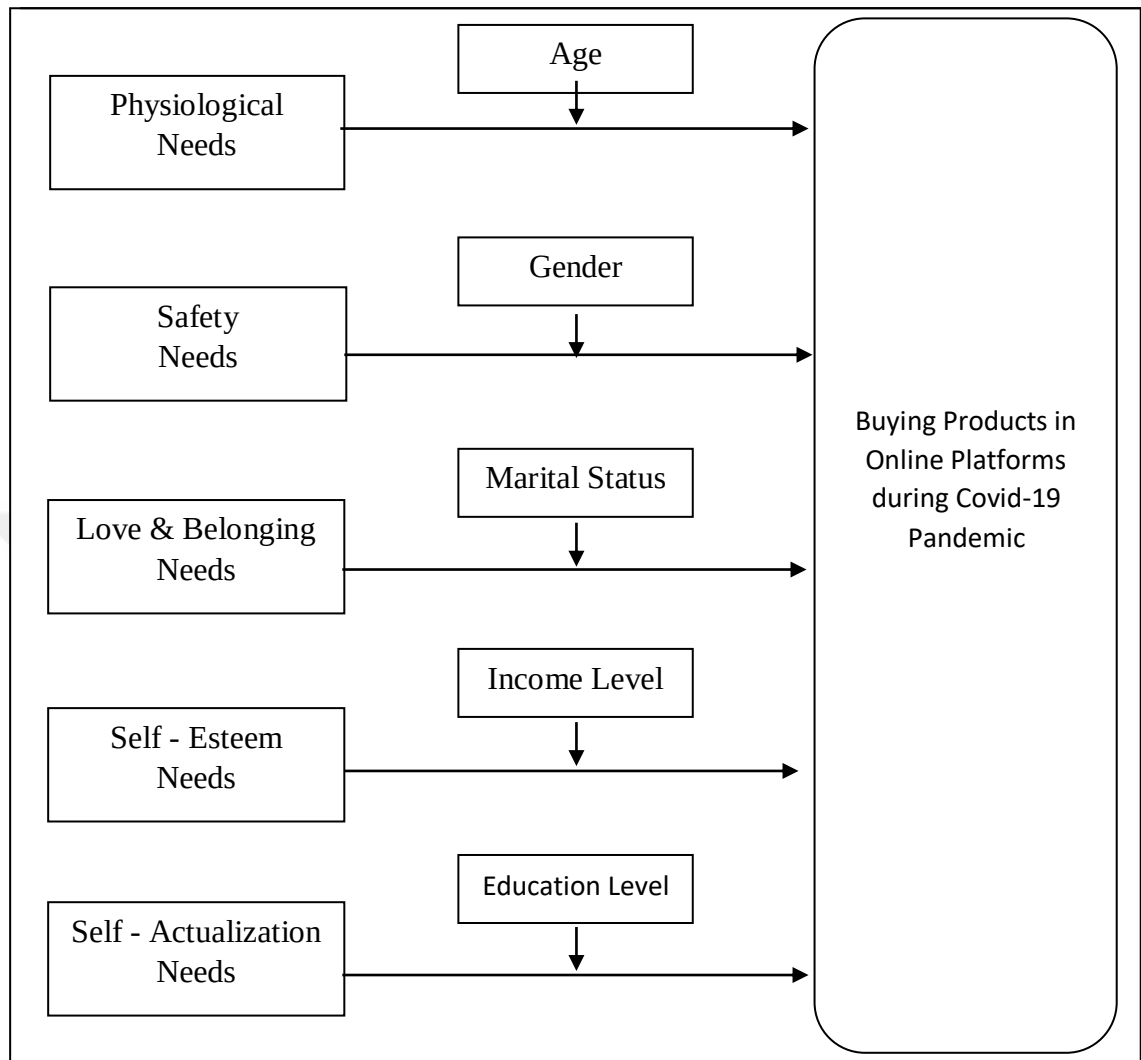
Thus, in this research, physiological needs, safety needs, love & belonging needs, self-esteem needs and self-actualization needs have been chosen as independent variable. Buying products in online platforms during Covid-19 Pandemic has been chosen as dependent variable so that it is examined as incentive factor in terms of motivation. Also, demography of decision-maker is chosen as a moderating variable. Framework of this study is shown in Figure 4.1.1.

4.1 RESEARCH MODEL AND HYPOTHESIS OF THE STUDY

This study aims to find a relationship between incentive factors of motivation according to Maslow Hierarchy of Needs and consumer behavior in online shopping priorities and preferences during the Covid-19 pandemic. One of the goals of this study is investigate online shopping behavior in Covid-19 pandemic and researching how Maslow Hierarchy of Needs factors and perception of Covid-19 pandemic effects on the differentiation of consumers' purchasing preferences on e-commerce. In addition, it is aimed to examine the online purchasing behavior of consumers according to demographic variables.

In the Covid-19 period, determining how consumer behavior has changed and transformed until today and determining the main motivators underlying this change has been vital for understanding and analyzing today.

Figure 4.1: Proposed research model



H1: Physiological needs has differentiated with age on consumers' willingness to buy products in online platforms during Covid-19 Pandemic.

H2: Safety needs has differentiated with gender on consumers' willingness to buy products in online platforms during Covid-19 Pandemic.

H3: Love & Belonging needs has differentiated with marital status on consumers' willingness to buy products in online platforms during Covid-19 Pandemic.

H4: Self-esteem needs has differentiated with Income level on consumers' willingness to buy products in online platforms during Covid-19 Pandemic.

H5: Self-actualization needs has differentiated with education level on consumers' willingness to buy products in online platforms during Covid-19 Pandemic.

4.2 DATA COLLECTION METHOD

In this part of the study, statistical analysis and demographic properties were examined. While analyzing numerical data, statistical values were expressed in terms of mean and standard deviation, and categorical data were expressed as frequency of occurrence and percentage. Histogram was used for visualization of numerical data, and pie or bar graph was used for visualization of categorical data.

While examining the results of the statistical analyzes in the studies, the tests were created in International Business Machine (IBM) statistical package for the social sciences (SPSS) Statistics 22 software by establishing a bidirectional hypothesis with 95 percent of confidence.

Data were collected through a virtual environment by asking participants to fill a questionnaire via www.google.com/forms. The questionnaire remained open for approximately 3 weeks and 250 participants were expected to answer. At the end of the planned period, a total of 287 participants answered the questions in the questionnaire and analyzes were made based on these answers. Average time to complete all the survey was 08:00 minutes.

All questions were chosen as a closed-ended question as you can see the questionnaire in Appendix 1. Five-point Likert scales was used to measure answers which means participants were asked to choose one of these answers; strongly disagree, disagree, neither agree or neither disagree, agree and strongly agree. These answers were scored 1 to 5 respectively.

The questionnaire was designed as 3 questions for research question (RQ) independently; 5 questions for measuring physiological needs, 5 questions for safety needs, 3 questions for the love and belongings needs and 4 questions for self-esteem needs, 3 questions for self-actualization needs. There was total 29 questions including socioeconomic and demographic-related questions.

The questions from 1st to the 3rd are for research questions, 4th to 8th is investigated for physiological needs, 9th to the 13th is related to safety needs, 14th to 16th is for love & belongings needs, 17th to 20th is for self-esteem needs and 21st to 23rd are for self-actualization needs of the survey.

In this study, the results of the survey conducted to investigate the effect of Covid-19 pandemic on the differentiation of consumers' purchasing preferences on e-commerce according to Maslow's Hierarchy of Needs theory are examined.

4.2.1 Demographical Statistics of Participants

In this part, demographical statistics of participants have been examined according to conducted survey.

4.2.1.1 Gender statistics

286 people participating in the survey; 105 (36.7 percent) of them are men, 181 (63.3 percent) of them are women.

Table 4.1: Gender statistic of survey participants

Gender_Group					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	105	36,7	36,7	36,7
	Female	181	63,3	63,3	100
	Total	286	100	100	

4.2.1.2 Age group statistics

286 people participating in the survey in terms of age groups, the group with the highest participation is the 28 - 38 age group with 99 participants, 34.6 percent of them. The least participation is the group over the age of 65 with 12 participants and 4.2 percent of them.

Table 4.2: Age group statistic of survey participants

Age_Group					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-27	52	18,2	18,2	18,2
	28-38	99	34,6	34,6	52,8
	39-50	42	14,7	14,7	67,5
	51-65	81	28,3	28,3	95,8
	65 +	12	4,2	4,2	100
	Total	286	100	100	

4.2.1.3 Marital status statistics

The majority of 286 people participating in the survey are single with 53.1 percent of (152 participants) and 46.9 percent of (134 participants) are married.

Table 4.3: Marital status statistics of survey participants

Marital_Status					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	134	46,9	46,9	46,9
	Married	152	53,1	53,1	100
	Total	286	100	100	

4.2.1.4 Education status statistics

The education levels of 286 people participating in the survey, it can be said that the group with the highest number of participants is university graduates with 197 participants, and the lowest participation is high school graduates with 3 people.

Table 4.4: Education status statistics of survey participants

Education_Status					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High School Graduate	46	16,1	16,1	16,1
	Bachelor Degree	197	68,9	68,9	85
	Master Degree	43	15	15	100
	Total	286	100	100	

4.2.1.5 Working status statistics

The employment status of 286 people participating in the survey; it can be said that approximately 80 percent of respondents are retired and full-time, and 20 percent of them are non-working, students and part-time workers.

Table 4.5: Working status statistics of survey participants

Working_Status					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unemployed	23	8	8	8
	Retired	78	27,3	27,3	35,3
	Student	23	8	8	43,4
	Full Time	151	52,8	52,8	96,2
	Part Time	11	3,8	3,8	100
	Total	286	100	100	

4.2.1.6 Income status statistics

The income distributions of 286 people participating in the survey as grouped; it can be said that approximately 50 percent of them is between 3000 TL and 7499 TL, then 20 percent of them has an income of 10000 TL and above.

Table 4.6: Income level statistics of survey participants

Income_Group					
		Frequency	Percent	Valid	Cumulative
Valid	0- 2999	46	16,1	16,1	16,1
	3000-	76	26,6	26,6	42,7
	5000-	76	26,6	26,6	69,2
	7500-	29	10,1	10,1	79,4
	10000 +	59	20,6	20,6	100
	Total	286	100	100	

4.2.2 Demographical Statistics of Research Questions

In this part, demographical structures of participants have been examined for research questions according to conducted survey.

4.2.2.1 Data of research questions according to the gender

The mean of the answer given by 105 male participants to the question "I started online shopping during the pandemic period" is 1.82. Mean of the answers given by 181 women participants to the question is 2.30.

The significance value of the answer means with equal variance distribution is 0.000299. For this reason ($0.000299 < 0.05$) there is a significant difference between the average of the answers given to the question "I first started online shopping during the pandemic period" by gender. It can be said that women response this question higher than men.

The mean of the answer given by 105 male participants to the question "My online shopping spending increased during the pandemic period" is 3.84. Mean of the answers given by 181 women participants to the question is 3.98.

The significance value of the answer means with equal variance distribution is 0.316. For this reason ($0.316 > 0.05$), there is no significant difference between the averages of the answers given to the question "My online shopping expenditures increased during the pandemic period" by gender.

"I will continue to shop online after the pandemic," said 105 male participants who answered the survey. Mean of the answers to the question is 4.03. Mean of the answers given by 181 women participants to the question is 3.97.

The significance value of the answer means with equal variance distribution is 0.604. For this reason ($0.604 > 0.05$), there is no significant difference between the averages of the answers given to the question "I will continue to shop online after the pandemic" by gender.

Table 4.7: Data for research questions according to gender

	Gender		
	Male	Female	
	Mean	Mean	p-value
RQ1	1,82	2,3	0,000299
RQ2	3,84	3,98	0,316
RQ3	4,03	3,97	0,604

4.2.2.2 Data of research questions according to marital status

The mean of the 134 single participants' answers to the question "I started online shopping during the pandemic period" is 2.03. Mean of the answers given by 152 married participants to the question is 2.20.

The significance value of the answer means with equal variance distribution is 0.178. For this reason ($0.178 > 0.05$), there is no significant difference between the average of the answers given to the question "I started online shopping during the pandemic period" according to marital status. It can be considered that married and single people give similar answers to this question.

"My online shopping spending has increased during the pandemic period" of 134 single respondents who responded to the survey. Their answers mean to the question is 3.97. On the other hand, 152 married participants' mean of the answers to the question is 3.89.

The significance value of the answer means with equal variance distribution is 0.59. For this reason ($0.59 > 0.05$) according to marital status, "My online shopping spending increased during the pandemic period". There is no significant difference between the mean answers given to the question. It can be said that married and single people give similar answers to this question.

"I will continue to shop online after the pandemic", said 134 single participants who answered the questionnaire. Their mean of the answers to the question is 4.08. Mean of the answers given by 152 married participants to the question is 3.91.

The significance value of the answer means with equal variance distribution is 0.129. For this reason ($0.129 > 0.05$) according to marital status "I will continue to shop online after the pandemic". There is no significant difference between the mean answers given to the question. It can be said that married and single people give similar answers to this question.

Table 4.8: Data for research questions according to marital status

	Marital Status		
	Single	Married	
	Mean	Mean	p-value
RQ1	2,03	2,2	0,178
RQ2	3,97	3,89	0,59
RQ3	4,08	3,91	0,129

4.2.2.3 Data of research questions according to age

Responding to the questionnaire, the 28-38 age group had the lowest mean with 1.83 in their answers to the question "I started online shopping for the first time during the pandemic period". Participants over the age of 65 gave the highest mean of the answer with an average of 3.00.

The significance value of the mean answers of the groups that do not have an equal variance distribution is 0.001. For this reason, it can be said that there is a significant difference between the average answers given to the question "I started online shopping for the first time during the pandemic period" according to age groups ($0.001 < 0.05$). Since it has more than two groups, the Tamhane test is used to see which groups differ.

When the results are statistically analyzed; there is a significant difference between the 28-38 age group and the 51-65 age group. There is no significant difference between other age groups.

Responding to the survey, "My online shopping spending has increased during the pandemic period". The age group over 65 gave the answer with the lowest mean with 3.33. Participants in the 18-27 age group gave the highest answer with mean of 3.98.

The significance value of the mean answers of the groups with equal variance distribution was 0.519. Therefore, according to age groups ($0.519 > 0.05$), "My online shopping spending increased during the pandemic period". There is no significant difference between the mean answers given to the question.

Responding to the questionnaire, "I will continue to shop online after the pandemic". The age group over the age of 65 gave the answer with the lowest mean with 3.00. Participants in the age group of 28 - 38 gave the highest answer with mean of 4.98.

The significance value of the mean answers of the groups that do not have an equal variance distribution is 0.001. For this reason ($0.000281 < 0.05$) according to age groups, "I will continue to shop online after the pandemic". It can be said that there is a significant difference between the averages of the answers given to the question. Since it has more than two groups, Tamhane test is used to see which groups differ.

Table 4.9: Data for research questions according to age group

	Age Group					
	18 - 27	28 - 38	39-50	51-65	65 +	
	Mean	Mean	Mean	Mean	Mean	p-value
RQ1	2,06	1,83	1,98	2,47	3	0,001
RQ2	3,98	3,94	3,95	3,96	3,33	0,519
RQ3	4,12	4,29	4,05	3,65	3	0,000281

5. FINDINGS AND DISCUSSIONS

In this section, all data to measure dependent and independent variables will be shown and analyzed.

In table 5.1, it is shown the answers to measure research question 1 which is “It is the first time I have ever started online shopping during the pandemic period”. In the answers given by the 286 participants to the question 1, 75 percent of them answered I do not agree and I strongly disagree.

Table 5.1: Data for research question 1

Question_1					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	88	30,8	30,8	30,8
	Disagree	127	44,4	44,4	75,2
	Neither Agree Nor Disagree	33	11,5	11,5	86,7
	Agree	24	8,4	8,4	95,1
	Strongly Agree	14	4,9	4,9	100
	Total	286	100	100	

In table 5.2, it is shown the answers to measure research question 2 which is “My online shopping spending has increased during the pandemic period”. Approximately 75 percent of the 286 people participating in the survey answered Agree and Strongly Agree for research question 2.

Table 5.2: Data for research question 2

Question_2					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	14	4,9	4,9	4,9
	Disagree	33	11,5	11,5	16,4

	Neither Agree Nor Disagree	26	9,1	9,1	25,5
	Agree	99	34,6	34,6	60,1
	Strongly Agree	114	39,9	39,9	100
	Total	286	100	100	

In table 5.3, it is shown the answers to measure research question 3 which is “I will continue to shop online after pandemic period”. Approximately 75 percent of the 286 people participating in the survey answered agree and strongly agree for research question 3.

Table 5.3: Data for research question 3

Question_3					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	6	2,1	2,1	2,1
	Disagree	22	7,7	7,7	9,8
	Neither Agree Nor Disagree	33	11,5	11,5	21,3
	Agree	133	46,5	46,5	67,8
	Strongly Agree	92	32,2	32,2	100
	Total	286	100	100	

In table 5.4, 5 different categorized group questions have been asked to the participants starting from bottom to the top level according to Maslow’s Hierarchy of Needs Theory. Firstly, survey started with 5 questions related with physiological needs which is bottom level of Maslow’s Hierarchy of Needs Theory. In table 5.4, it is shown the answers to measure and analyze of physiological needs related questions according to participants data.

286 people surveyed, "I did online supermarket shopping during pandemic period". Approximately 51 percent of the answers given to the question answered agree and strongly agree.

Although there was a more balanced distribution in the answers given to the "Concern about decreasing stocks in basic needs (such as water, basic food supplies, toilet paper) increased my online shopping" question, approximately 55 percent of them answered I disagree and absolutely disagree for "As the time I spend at home has increased, my online purchases for basic needs have increased" 36.7 percent of the answers given to the question answered agree. Next comes the disagree answer with a rate of 22.7 percentage.

Participants in the survey; in the answers given to the question "I give priority to food products in my online shopping", 29.4 percent of them answered I agree, similar to the previous question. 26.9 percent of the answer is disagreed.

The respondents answered the question "Exercise need at home affects buying sports equipment from e-commerce sites" 60 percent of the respondents said I do not agree and I strongly disagree.

Table 5.4: Data for physiological needs related questions

Question_4		I did online supermarket shopping during pandemic period.			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	30	10,5	10,5	10,5
	Disagree	54	18,9	18,9	29,4
	Neither Agree Nor Disagree	24	8,4	8,4	37,8
	Agree	76	26,6	26,6	64,3
	Strongly Agree	102	35,7	35,7	100
	Total	286	100	100	
Question_5		Concern about decreasing stocks in basic needs (such as Water, Basic Food Supplies, Toilet Paper) increased my online shopping.			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	63	22	22	22
	Disagree	97	33,9	33,9	55,9
	Neither Agree Nor Disagree	40	14	14	69,9
	Agree	45	15,7	15,7	85,7
	Strongly Agree	41	14,3	14,3	100
	Total	286	100	100	
Question_6		As the time I have spent at home has increased, my online purchases for basic needs have increased too.			

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	24	8,4	8,4	8,4
	Disagree	65	22,7	22,7	31,1
	Neither Agree Nor Disagree	34	11,9	11,9	43
	Agree	105	36,7	36,7	79,7
	Strongly Agree	58	20,3	20,3	100
	Total	286	100	100	
Question_7	I gave priority to food products in my online shopping.				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	29	10,1	10,1	10,1
	Disagree	77	26,9	26,9	37,1
	Neither Agree Nor Disagree	53	18,5	18,5	55,6
	Agree	84	29,4	29,4	85
	Strongly Agree	43	15	15	100
	Total	286	100	100	
Question_8	Exercise need at home affects buying sports equipment from e-commerce sites.				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	63	22	22	22
	Disagree	112	39,2	39,2	61,2
	Neither Agree Nor Disagree	32	11,2	11,2	72,4
	Agree	58	20,3	20,3	92,7
	Strongly Agree	21	7,3	7,3	100
	Total	286	100	100	

In table 5.5, 5 different categorized group questions have been asked to the participants which is related with safety needs according to Maslow's Hierarchy of Needs Theory. In table 5.5, it is shown the answers to measure and analyze of safety needs related questions according to participants data.

286 people participating in the survey; Approximately 65 percent of the answers given to the question " Due to economic concerns, I postponed the purchase of my non-urgent needs" answered I Agree and Strongly Agree.

Participants in the survey; in the answers given to the question "The contactless delivery option has effect on my online shopping" 35.7 percent of the answers given to the question answered agree. Next, 25.2 percent of answer is disagreed.

Similar to the previous question, 33.6 percent of the answers to the question "The contactless payment option has effect on my online shopping" answered I agree. Next comes the disagree answer with a percent of 24.8.

37.4 percent of the answers to the question "Switching to remote work / online education system has effect on buying notebook / tablet products from e-commerce websites" is mostly disagree. Next comes neither agree nor disagree with a percent of 23.8.

Participants in the survey, approximately 60 percent of the answers to the question "My health concerns have contributed to my preference for online shopping" answered I agree and strongly agree.

Table 5.5: Data for safety needs related questions

Question_9	Due to economic concerns, I postponed the purchase of my non-urgent needs.				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	12	4,2	4,2	4,2
	Disagree	43	15	15	19,2
	Neither Agree Nor	40	14	14	33,2
	Agree	120	42	42	75,2
	Strongly Agree	71	24,8	24,8	100
	Total	286	100	100	
Question_10	The contactless delivery option has effect on my online shopping.				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	24	8,4	8,4	8,4
	Disagree	72	25,2	25,2	33,6
	Neither Agree Nor	53	18,5	18,5	52,1
	Agree	102	35,7	35,7	87,8
	Strongly Agree	35	12,2	12,2	100
	Total	286	100	100	
Question_11	The contactless payment option has effect on my online shopping.				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	21	7,3	7,3	7,3
	Disagree	71	24,8	24,8	32,2
	Neither Agree Nor	65	22,7	22,7	54,9
	Agree	96	33,6	33,6	88,5
	Strongly Agree	33	11,5	11,5	100

	Total	286	100	100	
Question_12	Switching to remote work / online education system has effect on buying Notebook / Tablet				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	39	13,6	13,6	13,6
	Disagree	107	37,4	37,4	51
	Neither Agree Nor	68	23,8	23,8	74,8
	Agree	47	16,4	16,4	91,3
	Strongly Agree	25	8,7	8,7	100
	Total	286	100	100	
Question_13	My health concerns have contributed to my preference for online shopping.				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	16	5,6	5,6	5,6
	Disagree	48	16,8	16,8	22,4
	Neither Agree Nor	45	15,7	15,7	38,1
	Agree	120	42	42	80,1
	Strongly Agree	57	19,9	19,9	100
	Total	286	100	100	

In table 5.6, 3 different categorized group questions have been asked to the participants which is related with safety needs according to Maslow's Hierarchy of Needs Theory. In table 5.6, it is shown the answers to measure and analyze of love & belongings needs related questions according to participants data.

286 people surveyed; In the answers given to the question "Fulfilling my need for socialization has effect on buying smart phones / notebooks / tablets from e-commerce websites" 48.3 percent of answer was given disagree 21 percent of answer is neither agree nor disagree.

Approximately 71 percent of the answers to the question "Need for adopting to the new normal has influenced me signing up for video chat apps (Zoom, Teams, Houseparty etc.)" agree and strongly agree.

Approximately 40 percent of the respondents answered the question "Need for sharing special days remotely with my relatives has effect on sending gifts online" and they agree. However, after that, the answers given to the question in general were scattered close to each other.

Table 5.6: Data for love & belongings needs related questions

Question_14	Fulfilling my need for socialization has effect on buying Smart Phones / Notebooks / Tablets from e-commerce websites.				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	42	14,7	14,7	14,7
	Disagree	138	48,3	48,3	62,9
	Neither Agree Nor	60	21	21	83,9
	Agree	37	12,9	12,9	96,9
	Strongly Agree	9	3,1	3,1	100
	Total	286	100	100	
Question_15	Need for adopting to the new normal has influenced me signing up for video chat apps (Zoom, Teams, Houseparty etc.).				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	10	3,5	3,5	3,5
	Disagree	41	14,3	14,3	17,8
	Neither Agree Nor	29	10,1	10,1	28
	Agree	109	38,1	38,1	66,1
	Strongly Agree	97	33,9	33,9	100
	Total	286	100	100	
Question_16	Need for sharing special days remotely with my relatives has effect on sending gifts online.				
		Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Strongly Disagree	23	8	8	8
	Disagree	49	17,1	17,1	25,2
	Neither Agree Nor	50	17,5	17,5	42,7
	Agree	111	38,8	38,8	81,5
	Strongly Agree	53	18,5	18,5	100
	Total	286	100	100	

In table 5.7, 4 different categorized group questions have been asked to the participants which is related with esteem needs according to Maslow's Hierarchy of Needs Theory. In table 5.7, it is shown the answers to measure and analyze esteem needs related questions according to participants data.

286 respondents responded to the question "My desire to try different recipes has increased my need for online grocery shopping" the answer given to the question, with 32.2 percent of them is mostly disagree. Next comes the agree answer with a percent of 26.6.

Approximately 61 percent of the respondents answered the question "I achieved my desire to acquire / continue a hobby by purchasing online courses" and they disagree and I strongly disagree.

Respondents answered the question "Equipment needs for my hobbies has effect on online shopping" with 35 percent of them agreeing the most. Next comes the disagree answer with a percent of 26.6. When we look at the previous question, we can say that although they did not purchase online courses for their hobby needs, they did shop online for their hobby needs.

The respondents answered to the question "I made shopping from online diy stores in order to meet my home repair needs myself", with 45.8 percent of them saying disagree the most. Then comes the answer I agree with a percent of 21.7.

Table 5.7: Data for esteem needs related questions

Question_17	My desire to try different recipes has increased my need for online grocery shopping.				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	25	8,7	8,7	8,7
	Disagree	92	32,2	32,2	40,9
	Neither Agree Nor	51	17,8	17,8	58,7
	Agree	76	26,6	26,6	85,3
	Strongly Agree	42	14,7	14,7	100
	Total	286	100	100	
Question_18	I achieved my desire to acquire / continue a hobby by purchasing online courses.				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	53	18,5	18,5	18,5
	Disagree	125	43,7	43,7	62,2
	Neither Agree Nor	35	12,2	12,2	74,5
	Agree	52	18,2	18,2	92,7
	Strongly Agree	21	7,3	7,3	100
	Total	286	100	100	
Question_19	Equipment needs for my hobbies has effect on online shopping.				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	36	12,6	12,6	12,6
	Disagree	76	26,6	26,6	39,2
	Neither Agree Nor	44	15,4	15,4	54,5
	Agree	100	35	35	89,5
	Strongly Agree	30	10,5	10,5	100
	Total	286	100	100	
Question_20	I made shopping from online diy stores in order to meet my home repair needs myself.				

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	35	12,2	12,2	12,2
	Disagree	131	45,8	45,8	58
	Neither Agree Nor	43	15	15	73,1
	Agree	62	21,7	21,7	94,8
	Strongly Agree	15	5,2	5,2	100
	Total	286	100	100	

In table 5.8, 3 different categorized group questions have been asked to the participants which is related with self-actualization needs according to Maslow's Hierarchy of Needs Theory. In table 5.8, it is shown the answers to measure and analyze self-actualization needs related questions according to participants data.

286 people who participated in the survey answered the question "Retaining my personal development has effect on purchasing training / seminars from online platforms", with 35.3 percent of them, the most responded I do not agree. Then comes the answer I agree with a percent of 22.7.

Respondents answered the question "Sectoral bans have effect on purchasing online concert / theater tickets" with 44.1 percent of them disagree. Next is the answer I agree with a percent of 17.8. However, we can say that the distribution of the answers following the answer I disagree is very close to each other.

Participants in the survey; approximately 50 percent of the answers to the question "The economic difficulties in the society enabled me to donate online to those in need" answered agree and strongly agree.

Table 5.8: Data for self-actualization needs related questions

Question_21	Retaining my personal development has effect on purchasing training / seminars from online platforms.				
		Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Strongly Disagree	40	14	14	14
	Disagree	101	35,3	35,3	49,3
	Neither Agree Nor Disagree	52	18,2	18,2	67,5
	Agree	65	22,7	22,7	90,2
	Strongly Agree	28	9,8	9,8	100
	Total	286	100	100	
Question_22	Sectoral bans have effect on purchasing online concert / theater tickets.				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	48	16,8	16,8	16,8
	Disagree	126	44,1	44,1	60,8
	Neither Agree Nor Disagree	44	15,4	15,4	76,2
	Agree	51	17,8	17,8	94,1
	Strongly Agree	17	5,9	5,9	100
	Total	286	100	100	
Question_23	The economic difficulties in the society enabled me to donate online to those in need.				
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	19	6,6	6,6	6,6
	Disagree	54	18,9	18,9	25,5
	Neither Agree Nor Disagree	45	15,7	15,7	41,3
	Agree	111	38,8	38,8	80,1
	Strongly Agree	57	19,9	19,9	100
	Total	286	100	100	

5.1 DESCRIPTIVE STATISTICS OF QUESTIONS

The Likert scale is mostly a 5-point scale that shows how much a participant agrees with the statement in a questionnaire. With a score expressing neutrality in the middle, it is a symbol of a negative or positive approach to the extreme expression. Likert scale is statistically expressed as ordinal data type. For this reason, it can be explained by taking descriptive statistics such as continuous data type (mean, standard deviation, etc.).

We can look at the descriptive statistics by scoring the answers of the questions in order with an answer of absolutely disagree with an answer of 1, and an answer of strongly agree with an answer of 5.

When we look at the average of the answers, the highest average of 3.99 was "I will continue to shop online after pandemic period". We can say that most of the participants are thinking of continuing online shopping after the pandemic. The question with the lowest average is; The question is "I first started online shopping during the pandemic period".

Looking at the average, it can be said that most of the participants did not first start online shopping during the pandemic period.

Table 5.9: Data for descriptive statistics of questions

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Question_1	286	1	5	2,12	1,09
Question_2	286	1	5	3,93	1,18
Question_3	286	1	5	3,99	0,968
Question_4	286	1	5	3,58	1,404
Question_5	286	1	5	2,66	1,358
Question_6	286	1	5	3,38	1,267
Question_7	286	1	5	3,12	1,249
Question_8	286	1	5	2,52	1,242

Question_9	286	1	5	3,68	1,127
Question_10	286	1	5	3,18	1,186
Question_11	286	1	5	3,17	1,146
Question_12	286	1	5	2,69	1,159
Question_13	286	1	5	3,54	1,15
Question_14	286	1	5	2,42	0,994
Question_15	286	1	5	3,85	1,144
Question_16	286	1	5	3,43	1,202
Question_17	286	1	5	3,06	1,235
Question_18	286	1	5	2,52	1,196
Question_19	286	1	5	3,04	1,242
Question_20	286	1	5	2,62	1,11
Question_21	286	1	5	2,79	1,222
Question_22	286	1	5	2,52	1,142
Question_23	286	1	5	3,47	1,195
Valid N (listwise)	286				

5.2 STATISTICAL ANALYSIS

There may be some assumptions in the use of statistical tests. If these assumptions are not met, they may not always give correct results. Average comparison tests are also assumed to have sufficient sample size. Nonparametric statistical tests are applied if the groups to be compared have a small sample ($n < 30$). If the groups have sufficient sample numbers, parametric tests are used. If a paired comparison is made, the t-test is used, and if 3 or more groups are compared, ANOVA is used.

5.3 HYPOTHESIS FINDINGS AND ANALYSIS

We examine question groups about the Maslow's Hierarchy of Needs according to each step of pyramid.

In this section, the questions from the 4th to the 8th of the questionnaire are related to physiological needs. The physiological field was created by taking the average of the answers given by the participants to these questions. The questions from the 9th to the

13th of the survey are related to safety needs. A safety area was created by taking the average of the answers given by the participants to these questions. The questions from the 14th to the 16th of the survey are for social commitment. A love & belongings area was created by taking the average of the answers given by the participants to these questions. The questions from the 17th to the 20th of the questionnaire are about self-confidence. The esteem field was created by taking the average of the answers given by the participants to these questions. The questions from the 21st to the 23rd of the questionnaire are for self-improvement. The self-actualization area was created by taking the average of the answers given by the participants to these questions.

5.3.1 H1 Analysis and Findings

We can look at whether the answers given to the question groups differ between age groups with the ANOVA test. Tests that mean answers between groups are not statistically significant.

While examining whether there is a significant difference between the mean answers given by the participants to this question according to their age groups, we make the following hypotheses.

H0: There is no significant difference with 95 percent of confidence between the mean answers according to age groups.

H1: There is a significant difference with 95 percent of confidence between the mean answers according to age groups.

Table 5.10: Maslow's hierarchy of needs analysis according to age

	Age Group					
	18 - 27	28 - 38	39-50	51-65	65 +	
	Mean	Mean	Mean	Mean	Mean	p-value
Physiological	3,1731	3,3071	2,9571	2,7753	2,6333	0.001
Safety	3,1846	3,2182	3,2952	3,3111	3,3	0,92
Love & Belongings	3,3205	3,3737	3,127	3,0988	2,8889	0,087

Esteem	2,8269	2,9874	2,6667	2,716	2,4375	0,103
SelfActualization	2,6346	2,9495	2,9841	3,0741	2,7778	0,08

Table 5.11: Analysis for physiological needs according to age

Multiple Comparisons						
Dependent Variable: Physiological						
Age_Group	Age_Group	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
18-27	28-38	-,13399	,15923	1,000	-,5845	,3165
	39-50	,21593	,19288	1,000	-,3298	,7617
	51-65	,39777	,16521	,167	-,0697	,8652
	65 +	,53974	,29775	,709	-,3027	1,3822
28-38	18-27	,13399	,15923	1,000	-,3165	,5845
	39-50	,34993	,17121	,419	-,1345	,8343
	51-65	,53176*	,13929	,002	,1377	,9259
	65 +	,67374	,28419	,184	-,1303	1,4778
39-50	18-27	-,21593	,19288	1,000	-,7617	,3298
	28-38	-,34993	,17121	,419	-,8343	,1345
	51-65	,18183	,17678	1,000	-,3183	,6820
	65 +	,32381	,30432	1,000	-,5372	1,1848
51-65	18-27	-,39777	,16521	,167	-,8652	,0697
	28-38	-,53176*	,13929	,002	-,9259	-,1377
	39-50	-,18183	,17678	1,000	-,6820	,3183
	65 +	,14198	,28758	1,000	-,6717	,9556
65 +	18-27	-,53974	,29775	,709	-1,3822	,3027
	28-38	-,67374	,28419	,184	-1,4778	,1303

	39-50	-,32381	,30432	1,000	-1,1848	,5372
	51-65	-,14198	,28758	1,000	-,9556	,6717
The mean difference is significant at the 0.05 level.						

When we look at the significance values of the tests performed on the question groups, there is a significant difference between the averages of only the physiological question group, whose reliability value is less than 0.05. When we examine the group that makes the difference in physiological questions, there is a significant difference between the 28-38 age group and the 51-65 age group. There is no significant difference between other age groups.

H1 states that, physiological needs, which is the first step of Maslow's Hierarchy of the Needs Pyramid, have been differentiated with age. When we checked the statistical results, we may say that sensibility of physiological needs for 28-38 years old age group is higher than remaining and when the age increased this sense is decreasing. Because, the participants in this age group are generally employed and they are already get used to shop online in their daily life. Most of them were worked home office during covid-19 pandemic. On the other hand, majority of this age group supported their elder parents to shop online or completed their necessities for them as a common knowledge and it may explain the results better why higher age groups did not differentiated. Therefore, the increase in online shopping for basic needs is in line with our expectations, as time spent at home increases included with their know-how for 28-38 years old age group.

To sum up, Hypothesis 1 "Physiological needs has differentiated with age on consumers' willingness to buy products in online platforms during Covid-19 Pandemic" has been approved when we check the above anova test statistics cause p value is less than 0.05.

5.3.2 H2 Analysis and Findings

We can look at whether the answers given to the grouped questions differ between genders or not with the t-test. Tests that mean answers between groups are not statistically significant.

We make the following hypotheses while examining whether there is a significant difference between the mean answers given by the participants to this question according to their gender.

H0: There is no significant difference between the mean answers according to gender with 95 percent of confidence.

H1: There is a significant difference between the mean answers according to gender with 95 percent of confidence.

Table 5.12: Maslow's hierarchy of needs analysis according to gender

	Gender		
	Male	Female	
	Mean	Mean	p-value
Physiological	3,0133	3,0751	0,598
Safety	3,0648	3,3624	0,003
Love & Belongings	3,054	3,3315	0,007
Esteem	2,5976	2,9351	0,002
Self-Actualization	2,6762	3,07	0,00027

When we look at the significance values of the tests performed on the question groups, we can see the results of safety, love & belongings, esteem and self-actualization which are less than 0.05, which is the reliability value. It can be said that women responded to the questions regarding safety needs with a higher average compared to men, in other words they participated more. According to the love & belongings results, it can be said that women answered the questions about love & belongings with a higher average compared to men. It can be said that women responded with a higher average to shopping questions related to the development of self-esteem compared to men. According to the results of self-actualization, it can be said that women answered the online shopping questions about self-actualization with a higher average compared to men.

H2 indicates that, safety needs, which is the second step of Maslow's Hierarchy of the Needs Pyramid, have been differentiated with gender. Women prioritize safety needs regarding to men in the survey during the pandemic. This result is to be expected

because the necessity of the safety stands out more for women compared to men in contemporary world. Sensitivity of health, financial concern, easiness and contactless activities are more significant for women. Women are more likely willing to take precautions against covid-19 protection need rather than men. Their behavior in online shopping has differentiated due to concerns about safety needs.

Throughout the Covid-19 pandemic, the ongoing fear of disease led people to stay away from crowded environments with the government's restrictions and measures. This has led to a non-contact life and avoiding activities that require being in crowded environments. Therefore, flight ticket purchases or hotel reservations have decreased dramatically as shown in the figure 2.10.

To sum up, Hypothesis 2; “Safety needs has differentiated with gender on consumers' willingness to buy products in online platforms during Covid-19 Pandemic” has been approved when we check the above t-test table cause p value is less than 0.05.

5.3.3 H3 Analysis and Findings

We can look at whether the answers given to the grouped questions differ between marital status or not with the t-test. Tests that mean answers between groups are not statistically significant.

While examining whether there is a significant difference between the mean answers given by the participants to this question according to their marital status, we make the following hypotheses.

H0: There is no significant difference with 95 percent of confidence between the mean answers according to marital status.

H1: There is a significant difference with 95 percent of confidence between the mean answers according to marital status.

Table 5.13: Maslow’s hierarchy of needs analysis according to marital status

	Marital Status		
	Single	Married	

	Mean	Mean	p-value
Physiological	3,0791	3,0289	0,658
Safety	3,2104	3,2908	0,407
Love & Belongings	3,2388	3,2215	0,017
Esteem	2,8097	2,8125	0,979
Self-Actualization	2,8706	2,9737	0,329

When we look at the significance values of the tests performed on the question groups, there is a significant difference only between the means of the love & belongings question group, which is less than the reliability value of 0.05. We can say that single participants gave higher answers to this question compared to married participants.

H3 indicates that, love and belonging needs, which is the third step of Maslow's Hierarchy of the Needs Pyramid, have been differentiated with marital status. Single participants gave higher importance to love and belonging needs compared to married participants. People who live alone have a higher need to socialize than married people. It could be related with fast adapting to the new normal for them because of the lock down decisions of the government. Thus, their requirement for socialization encouraged them to share special events in online platforms, make video chats, buy smartphones, notebooks, tablets. It shows that people living alone bought or shopped for remote socialization services during Covid-19 pandemic. Maybe, it is related to managed easily to their social interactions remotely.

To sum up, Hypothesis 3; "love & belonging needs has differentiated with marital status on consumers' willingness to buy products in online platforms during Covid-19 Pandemic" has been approved when we check the above t-test table cause p value is less than 0.05.

5.3.4 H4 Analysis and Findings

We can look at whether the answers given to the grouped questions differ in income levels with the ANOVA test. Tests that mean answers between groups are not statistically significant.

While examining whether there is a significant difference between the averages of the participants' answers to this question according to their income levels, we make the following hypotheses.

H0: There is no significant difference with 95 percent of confidence between the mean answers according to income levels.

H1: There is a significant difference between the means of answers according to income levels with 95 percent of confidence.

Table 5.14: Maslow's hierarchy of needs analysis according to income level

	Income Group					
	0 - 2999	3000 - 4999	5000 - 7499	7500 - 9999	10000 +	
	Mean	Mean	Mean	Mean	Mean	p-value
Physiological	2,6391	3,0316	3,0605	3,3793	3,2305	0.006
Safety	3,1739	3,4395	3,2211	3,2	3,1424	0.220
Love & Belongings	3,2174	3,2281	3,193	3,2874	3,2599	0.985
Esteem	2,6685	2,9276	2,7993	2,8707	2,7585	0.599
Self-Actualization	2,7609	2,9912	2,9342	2,9425	2,9492	0.729

When we look at the significance values of the tests performed on the question groups, there is a significant difference between the averages of only the physiological question group, whose reliability value is less than 0.05. When we examine the group that makes the difference in physiological questions, there is a significant difference between the 0 - 2999 income group and the 7500 - 9999 income group. There is a significant difference between the 0 - 2999 income group and the 10000 + income group. There is no significant difference between other age groups.

To sum up, Hypothesis 4; "Self-esteem needs has differentiated with income level on consumers' willingness to buy products in online platforms during Covid-19 Pandemic" has been rejected when we check the above anova test statistics cause p value is higher than 0.05.

5.3.5 H5 Analysis and Findings

We can look at whether the answers given to the grouped questions differ between the education levels or not with the anova test. Tests that mean answers between groups are not statistically significant.

We make the following hypotheses while examining whether there is a significant difference between the averages of the answers given to this question according to the education levels of the participants.

- H0: There is no significant difference with 95 percent of confidence between the mean answers according to education levels.
- H1: There is a significant difference with 95 percent of confidence between the mean answers according to the education levels.

Table 5.15: Maslow's hierarchy of needs analysis according to education status

	Education_Status			
	High School Graduate	Bachelor Degree	Master Degree	
	Mean	Mean	Mean	p-value
Physiological	2,887	3,0487	3,2465	0,15
Safety	3,3478	3,2305	3,2558	0,627
Love & Belongings	3,2101	3,1523	3,6047	0,006
Esteem	2,7065	2,7868	3,0349	0,181
Self-Actualization	2,7899	2,8765	3,2946	0,01

When we look at the significance values of the tests performed on the question groups, it can be said that the love & belongings and self-actualization question groups with a reliability value of less than 0.05 have a significant difference in terms of education levels. There is a significant difference between the bachelor degree and master degree graduates in the love & belongings question group. Master's degree graduates answered I agree to this group of questions, on average, at a higher level. In the self-actualization question group, there is a significant difference between high school graduate and

master degree graduates. There is also a significant difference between the bachelor degree and master degree. In other words, it can be said that the participants who graduated from master's degree agree with this question group at a higher rate. There is no significant difference between other education levels and question groups.

We can consider that, self-actualization needs, which is the last step of Maslow's Hierarchy of the Needs Pyramid, have been differentiated with education level. When education level raised, self-actualization necessity was required more. According to Maslow, after meeting all our previous needs, we can fulfill our needs at self-actualization level. In order to meet with this, the needs in other sub-steps must be met sufficiently. Since this can only be possible with the power of awareness and knowledge, the need for self-actualization at the top of the pyramid may arise from the fact that the level of education differs. Also, stuck in home or fear of Covid-19 stay away from crowded events such as concert, training, seminar. As the level of education increased, meeting the requirements for these needs was only possible remotely. Online shopping behaviors have also been shaped accordingly during the Covid-19 pandemic for master degrees.

To sum up, Hypothesis 5; "Self-actualization needs has differentiated with education level on consumers' willingness to buy products in online platforms during Covid-19 Pandemic" has been approved when we check the above ANOVA test statistics cause p value is lower than 0.05.

5.4 EXAMINING THE RELATIONSHIPS OF MASLOW'S HIERARCHY OF NEEDS

Correlation value is used to test the existence of the relationship between two continuous variables and to examine the direction and strength of this relationship, if there is a relationship. The correlation takes a value between -1 and 1. Whether it is negative or positive indicates the direction of the relationship between variables. If (+) takes a positive value, it is interpreted that the two variables move together, that is, while one increases while the other increases, or as one decreases, the other decreases. The correlation coefficient gives the strength of the relationship. Although interpreted differently in some sources, in most sources:

- i. Very weak relationship between 0 and 0.2
- ii. Poor relationship between 0.2 - 0.4
- iii. Moderate correlation between 0.4 - 0.6
- iv. High relationship between 0.6 - 0.8
- v. Very high correlation if between 0.8 and 1 can be considered as.

While testing the existence of the relationship between them, we make the following hypotheses.

H0: There is no significant relationship between the two variables with 95 percent of confidence.

H1: There is a significant relationship between the two variables with 95 percent of confidence.

We can look at the descriptive statistics by scoring the answers of the questions in order with an answer of absolutely disagree with an answer of 1, and an answer of strongly agree with an answer of 5. The questions from the 4th to the 8th of the questionnaire are related to physical needs. The physiological field was created by taking the average of the answers given by the participants to these questions. The questions from the 9th to the 13th of the survey are related to safety needs. A safety area was created by taking the average of the answers given by the participants to these questions. The questions from the 14th to the 16th of the survey are for social commitment. A love & belongings area was created by taking the average of the answers given by the participants to these questions. The questions from the 17th to the 20th of the questionnaire are about self-confidence. The esteem field was created by taking the average of the answers given by the participants to these questions. The questions from the 21st to the 23rd of the questionnaire are for self-improvement. The self-actualization area was created by taking the average of the answers given by the participants to these questions. When we look at the answer averages of the question groups, the answers given to the love & belongings group with the highest average of 3.22 were. The question with the lowest average is; esteem question group.

Table 5.16: Data for descriptive statistics of maslow's hierarchy of needs

Descriptive Statistics			
	Mean	Std. Deviation	N
Physiological	3,0524	0,95288	286
Safety	3,2531	0,81562	286
Love & Belongings	3,2296	0,83987	286
Esteem	2,8112	0,89991	286
Self-Actualization	2,9254	0,88955	286

When we examine the relations of each question group with each other, we can talk about the existence of a statistically significant relationship between all of the question groups. For instance; when the relationship between physiological and safety question groups is tested, we can talk about the existence of a relationship between them, since a value of less than 0.05 is found.

The next important question is how strong this relationship is. 0.431 shows the strength and direction of the relationship between these two variables. In other words, there is a medium level same direction relationship between physiological and safety.

The highest relationship is between the variables love & belongings and esteem. There is a highly uniform relationship between these two variables. It can be said that the participants who answered I agree to the love & belongings questions gave I agree to esteem questions more likely. Similarly, there is a high correlation in the same direction between esteem and self-actualization. The lowest relationship is between the physiological and self-actualization question group. There is a significant relationship, but this relationship is the same direction and weak. In other words, we cannot say that the participants who answered I agree with the physiological questions answered I agree with the self-actualization questions in a similar way.

If we want to interpret it in general terms; the people who gave positive answers to the physiological questions gave positive answers to the esteem question group. Thus, they have a similar relationship.

Those who answered the safety questions positively gave a positive answer to the love & belongings questions. Those who answered love & belongings questions positively answered Esteem questions. The answers given to the esteem questions, the highest relationship is with love & belongings questions and the lowest relationship is with

physiological questions. On the other hand, self-actualization questions, the highest relationship is similarly seen with the esteem questions.

Table 5.17: Correlation matrix

Correlations						
		Physiological	Safety	Love_Belongings	Esteem	Self-Actualization
Physiological	Pearson Correlation	1	,431**	,411**	,470**	,316**
	Sig. (2-tailed)		0	0	0	0
	N	286	286	286	286	286
Safety	Pearson Correlation	,431**	1	,583**	,508**	,470**
	Sig. (2-tailed)	0		0	0	0
	N	286	286	286	286	286
Love&Belongings	Pearson Correlation	,411**	,583**	1	,676**	,534**
	Sig. (2-tailed)	0	0		0	0
	N	286	286	286	286	286
Esteem	Pearson Correlation	,470**	,508**	,676**	1	,608**
	Sig. (2-tailed)	0	0	0		0
	N	286	286	286	286	286
Self-Actualization	Pearson Correlation	,316**	,470**	,534**	,608**	1
	Sig. (2-tailed)	0	0	0	0	
	N	286	286	286	286	286
** Correlation is significant at the 0.01 level (2-tailed).						

5.5 SUMMARY OF RESEARCH QUESTIONS ANALYSES

In this part of the study, obtained results evaluated generally in the light of the findings and analyzes were made.

In this thesis, three research questions are asked to the participants in order to collect information for future researches and make an inference for the study. Research questions focus on consumers' online shopping behavior to investigate pre, during and post Covid-19 crises.

The results showed that for research questions, approximately 75 percent of participants have already shopped online before the pandemic period. However, 25 percent of participants have just started online shopping with pandemic. On the other hand, 75 percent of participants online shopping spending have been increased with pandemic and the same percentage of participants will continue to maintain their online shopping after pandemic. This expectation is parallel to study (İnce & Kadioğlu 2020) Therefore, these statistical data are met with our expectations which is increasing online shopping volume in Covid-19 pandemic and section of 2.6.1 COVID-19 Impact on E-Commerce in Turkey.

During Covid-19 pandemic, it is not the first time the survey participants have ever shop online but it created an effect on increasing online shopping behavior in a positive way. Moreover, it can be said that it tends to maintain the acquired behavior.

Even the result is expected, our study is proved with the research questions that Covid-19 pandemic had a positive effect on e-commerce in Turkey. Consumers who need to stay at home in times of epidemics and disasters tend to shop online. Consumers, who do not leave their homes unless they are obliged to be protected from the coronavirus epidemic, have purchased a lot of products in many different categories to continue their lives.

In line with the suggestions of the authorities, it was predicted that consumers who do not leave their home unless required will increase their online purchasing behavior. In every epidemic and pandemic epidemic experienced by the world as it is, the epidemic will lose its effect. However, it is possible for consumers to have permanent behavioral

changes. Consumers are used to online shopping behavior during pandemic and we may say that the online shopping consumption will continue and even increase in the future.

5.6 SUMMARY OF HYPOTHESIS ANALYSES

In this study, five hypotheses have been investigated based on Maslow's Hierarchy of Needs starting from the base of the pyramid include, physiological necessities, safety, love and belonging, self-esteem and self-actualization according to demographical structures of participants.

To summarize, hypothesis 1 has been proven that physiological needs has differentiated with age on consumers' willingness to buy products in online platforms during Covid-19 pandemic.

Hypothesis 2 has also been proven that safety needs has differentiated with gender on consumers' willingness to buy products in online platforms during Covid-19 Pandemic.

As this study showed, hypothesis 3 love & belonging needs has differentiated with marital status on consumers' willingness to buy products in online platforms during Covid-19 pandemic.

Unlike the first three hypothesis above, self-esteem factor, it does not differentiate with income level on consumers' willingness to buy products in online platforms during Covid-19 pandemic. Therefore, hypothesis 4 is rejected cause there is no any difference in income level.

In the last hypothesis, self-actualization needs have differentiated with education level on consumers' willingness to buy products in online platforms during Covid-19 pandemic.

Therefore, we may say that H1, H2, H3 and H5 have been accepted since p values are less than 0,05 but H4 has been rejected according to statistical analysis despite p value more than 0,05. It is indicated with table 5.18 below.

Table 5.18: Summary for all hypothesis

Hypothesis	Not Rejected	Rejected
H1: Physiological needs has differentiated with age on consumers' willingness to buy products in online platforms during Covid-19 Pandemic.	X	
H2: Safety needs has differentiated with gender on consumers' willingness to buy products in online platforms during Covid-19 Pandemic.	X	
H3: Love & Belonging needs has differentiated with marital status on consumers' willingness to buy products in online platforms during Covid-19 Pandemic.	X	
H4: Self-esteem needs has differentiated with income level on consumers' willingness to buy products in online platforms during Covid-19 Pandemic.		X
H5: Self-actualization needs has differentiated with education level on consumers' willingness to buy products in online platforms during Covid-19 Pandemic.	X	

6. CONCLUSION

In this study the goal was to find out consumers' online shopping behavior differentiation according to demographical features in terms of motivational factor during the Covid 19 pandemic in Turkey. Establishing the correlation between Maslow's Hierarchy of Needs and demographics demonstrates how consumer behaviors are expected to change during Covid-19 pandemic. Maslow's Hierarchy of Needs has been chosen as motivational factor of consumers' online shopping behavior.

A survey which is integrated with Maslow Hierarchy of Needs, has been conducted with 287 participants and results were analyzed. According to results of scientific analysis, hypothesis of this study is investigated.

Existing behaviors and structures are being called into question as a result of the COVID-19 epidemic. Coronavirus pandemic trigger lots of concerns in people's mind because of unpredictable experience.

It can be said that the most important reason for the differentiation of willingness to buy products in online platforms for physiological needs of generation Y compared to other age groups is that this generation was born and grew up with technology. In my opinion, generation X have less sensitivity towards basic needs stems from their life-long experiences.

Furthermore, in many researches figures out that shopping behaviors are changing according to generational differences, we're also seeing variations based on gender. Women are more likely to be concerned about the effects of COVID-19. Although the results show us that the desire to shop online is more important for women, it is a predictable reality that women are generally more willing to shop than men. Therefore, it can be interpreted as a possible result that the online purchasing behavior that differs by gender is higher in women. Therefore, it can be expected that e-commerce marketing and sales strategies for women will continue increasingly.

One of the main reasons for the rapid completion of the adaptation process to the Covid-19 crisis is the opportunities created by technology. With the developing technology, communications that can be established regardless of distance and location, shopping through online platforms without going to the physical store, and even giving gifts to each other without any physical contact, have differentiated shopping behaviors for love and belonging needs in single individuals.

Every crisis creates opportunities as well as threats. Those who turn these opportunities in their favor manage the adaptation process towards the crisis faster. This is an undeniable fact. If we accept that this situation is directly proportional to the economic opportunities and level of awareness, we can say that people with a higher education level are in a much more advantageous position in crises. All these go from the lowest layer of the pyramid to the top layer in a hierarchical manner. Considering that the group at the top of the pyramid is the group that will be least affected by negative factors, we can say that people with a high level of education can more easily fulfill their needs for self-actualization by taking advantage of the opportunities of technology in online shopping.

Online consumer behavior has been differentiated during the Covid-19 pandemic mostly. Next studies may focus on consumer behaviors which are acquired during the Covid-19 pandemic and sustainability of such kind of behaviors after pandemic.

The Covid-19 pandemic is unique situation that which still continues. Current researches, surveys, studies or investigations are very fresh with limited pandemic experience. Therefore, it was hard to find and compare analytical data with any other researches.

In examining process, 65+ years old number of participants were lower than other age groups. Thus, we could not point out the exact impact of 65+ years old participants. Next researchers may investigate 65+ years old age group's online shopping behavior changes after pandemic.

In this study, the great majority of the participants are educated people who have bachelor degree or above. Therefore, we could not state low-educated people's online

shopping behavior in detail. In future studies, hypotheses can be made about the differences in online shopping preferences by focusing on low-educated participants.



6.1 LIMITATIONS

This study has been completed under the Covid-19 pandemic conditions. It means pandemic was still continuing. Consequently, alternate of consumer behaviors and its impact on e-commerce may vary.

Covid-19 effects have been felt worldwide but this study mainly emphasized changes in online shopping behavior in Turkey. All of the participants of the survey live in Turkey. Therefore, we could not look at the topic in general and worldwide.

The survey participants are populosly educated. Thus, we could not point out low-educated people perspective to online shopping during covid-19 pandemic. Moreover, most of the participants are lower than 65 years old. However, most of the restrictions were related with 65+ years old people. It would be much better if we could evaluate the attitude people over the age of 65 towards online shopping.

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